

## Final Evaluation Report

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Your Details	
<b>Full Name</b>	Martin Boullhesen
<b>Project Title</b>	A Silent Loss: Evaluation of Human Impacts in the Yungas Andean Forests through Passive Acoustic Monitoring
<b>Application ID</b>	37390-B
<b>Date of this Report</b>	28/08/2023

**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
Acoustic Monitoring				We succeeded the acoustic monitoring after wildfires extinguishing in Calilegua National Park and installed the recorders coupled with data loggers in December 2022 (3 months later than programmed).
Training workshops				We conducted training workshops about anuran recognition and the use of acoustic recorders to Calilegua and Aconquija National Park ranger staffs.
Ecoacoustic Stands				We installed three eco-acoustic stands at Aconquija National Park and Salta Natural Sciences Museum and in Jujuy province.
Environmental monitoring				We successfully recorded climatic conditions in burned versus non-burned forests at Calilegua National Park.
Manual edition				A beta version of the manual has been delivered to National Park Rangers.

**2. Describe the three most important outcomes of your project.**

- a) The Eco-acoustic stand we installed at Aconquija National Park had profound impact on visitors. Additionally, team member Paula Daniela Cano of National Park Administration incorporated the eco-acoustic stand in educational campaign of the conservation area of the Aconquija National Park.
- b) We successfully installed an eco-acoustic stand at the Salta Natural Science Museum significantly advancing our goal to reach a wider audience. The museum welcomes approximately 2700 visitors monthly.
- c) Our training workshop on anuran diversity and the use of automated recorders received a positive reception by park ranger staff of Calilegua National Park.

**3. Explain any unforeseen difficulties that arose during the project and how these were tackled.**

The severe wildfires that affected Calilegua National Park from August to November 2022 postponed the deployment of the automated recording units and data loggers by 3 months. Furthermore, the Calilegua National Park rangers couldn't

participate in the practical workshop segment. To address this, we provided them a video and a .pdf about anuran diversity and recognition as a field tool.

**4. Describe the involvement of local communities and how they have benefited from the project.**

Aconquija NP staff were highly involved with our project. As they used our eco-acoustic stand for educational campaigns at Concepción and Tafí Viejo localities of Tucumán province.

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

Our work is far to be completed. We identified the wildfires as an increasing threat to Yungas Andean forests (cloud as these forests did not evolve with wildfires dynamics). We aim to expand our awareness campaign to reach a broader audience to spread our message about the importance of conserving the biodiversity hotspot of the Yungas Andean forests. Also, we want to strengthen our relationship with National Park Administration and provincial environmental agencies to set the Passive Acoustic Monitoring (PAM) as standard technique to monitoring the recovery of natural landscapes and to evaluate the effect of management practices of the Yungas' areas affected by severe wildfires.

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

We have edited a video using recorded data which is showcased within our eco-acoustic stands. This short educational video will be introduced to local schools at San Francisco, a community near Calilegua National Park in Jujuy province. Additionally, we anticipate setting up a third eco-acoustic stand in the Baritú National Park in October 2023. We will also share our project's results in scientific congresses and peer reviewed publications.

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

Our immediate priority is to distribute our educational video on Yunga's natural soundscapes to local schools. We also, aim to collaborate with local guides in San Francisco, close Calilegua National Park. Offering them training sessions on anuran diversity recognition for frog watching/frog listening ecotourist activities in Yungas Andean forests.

**8. 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?**

Yes, we featured the RF Logo in our educational video about natural soundscapes of the Yungas Forests. This video is showcased inside Salta Natural Sciences Museum and in our social media platforms: Instagram, Facebook, and Twitter (@CanoaAnfibios).

**9. Provide a full list of all the members of your team and their role in the project.**

**Martin Boullhesen:** project leader.

**Mauricio Akmentins:** project co-leader.

**Daniela Cano:** Aconquija National Park. She works as an educational agent with local community at Concepcion, Tucumán. She installed our ecoacoustic stand in educational campaigns delivered by Aconquija National Park.

**Yanina Bounduri:** She linked us to the Salta Natural Science Museums' director. This link enabled us to insert our ecoacoustic stand inside the museum.

**Javier Gonzales Raffo:** He worked with us in our field campaigns at Calilegua National Park.

**10. Any other comments?**

We edited a short video resuming the whole project's activities. This video will be linked to the project's final report and when will be used (after your approval) in our social media platforms (@CanoaAnfibios).