

## Final Evaluation Report

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Your Details	
Full Name	Ignacio J. Rojido Nin
Project Title	Understanding human relationships with the endangered Espinal forest
Application ID	27888-2
Date of this Report	16 June 2022

**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
Deepen the social research developed in the first project through quantitative methodologies				We carried out and analysed a total of 104 surveys, 86 corresponding to family livestock producers and 18 to researchers, extensionists and public officials.
Hold a meeting between team members to design and analyse the development of the project				To guarantee interdisciplinary and interinstitutional integration, we held a 3-day team workshop. The members of the team meet there to analyse the way the project is being developed and adjust the steps to be followed to achieve all the objectives.
Disseminate the scientific information generated				As part of the broad perspective proposed by socioecological approaches, we carried out multiple actions to disseminate the scientific information generated to society, but of particular importance is a book oriented towards general outreach and primary/secondary education.

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

**a).** One of the most relevant achievements of this second-level project was to have captured a broad perspective regarding the social values of this highly endangered forest ecosystem, highlighting the relationships maintained by both the social actors who are in frequent contact with the forest (i.e., family livestock producers) and those stakeholders with more sporadic contact (i.e., researchers, extension agents and public authorities). In this way, it was possible to recognise and measure the link between the stakeholder wellbeing with ecological elements and processes of native forests.

**b).** Generating scientific knowledge regarding the multiple values of nature in a little studied region is an important contribution both to the study and management of the native forests in the Espinal and broader. Currently, Argentina is promoting sustainable ranching practices that include 'forest management with integrated livestock', and these findings will be able to inform policies seeking to create indicators for these new conservation-production systems. This information was incorporated into Ignacio Rojido's doctoral dissertation, and it will be soon published in a scientific, peer-reviewed journal.

**c).** An outstanding aspect of this project was having ‘translated’ the scientific information generated in both Rufford Foundation grants to make it accessible by a wider audience. In this way, we held meetings with the ranchers and generated audiovisual and graphic dissemination materials (both in digital and printed format), based on the most outstanding aspects of both projects. Specifically, we produced a brochure

(<https://drive.google.com/file/d/19QqcQpLOZcvhfN74lO4ZtZEMv70No8HP/view?usp=sharing>)

and a video

(<https://www.youtube.com/watch?v=pJ2mUgNE1b0&t=11s>) focused mainly on portraying the medium and large mammals present in the forests associated with cattle farms and, therefore, to highlight the relevance of ranchers as allies for the conservation of this biological group. In addition, we went above and beyond our original proposal, since we also developed educational material with a professional editor and designer, which was not initially contemplated. This material is an educational booklet (<http://hdl.handle.net/20.500.12123/11762>) that was published under the INTA agencies, which allows greater national coverage. The booklet, tailored for primary/secondary schools and the general public brings together both relevant information generated in both projects and studies carried out by other technicians and scientists from other local institutions, such as INTA and the Faculty of Agricultural Sciences of the National University of Entre Ríos. It contains these thematic axes: a) native Espinal forests as social-ecological systems, whereby the productive and conservation values are harmonized; b) biodiversity, focusing on mammals and also endangered birds (which is a parallel project in our research group); c) nature's contributions to people, considering different values, but also different stakeholders; and d) and the opportunities to engage sustainable silvopastoral management (e.g., conservation plans and subsidies within the national and provincial native forestry laws).

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

Our project began in the middle of 2019. During the second semester of that year, we carried out 90% of the surveys that we intended to carry out. Simultaneously, we held meetings with producers mainly to share the information generated during the first project financed by The Rufford Foundation. Finally, during that period we held a 3-day team workshop in which we analysed the progress of the project and defined the steps to follow. Expecting to continue with our activities after the summer break in Argentina (January-March), the COVID-19 pandemic broke out and changed these plans. Based on the uncertainty that this situation presented, we asked The Rufford Foundation for an extension of the deadlines to finish our project. Simultaneously, given that the expenses to carry out the surveys (fuel, meals and lodging) were less than what was stipulated, we proposed a readjustment of the destination of the funds. The approval by The Rufford Foundation of this reorganisation of our project allowed us to achieve all the objectives that we had proposed. Even, as we mentioned in previous sections, we even exceeded our expectations regarding the originally planned dissemination material, generating an

educational booklet of approximately 50 pages, in addition to the video and brochure materials that were originally projected.

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

This study highlighted the perspectives and demands on the forest of stakeholders who are relevant to the management of the Espinal. In particular, it explored how the degradation of these forests is perceived to affect human wellbeing. The findings have implications for the implementation of public policies in Entre Ríos linked to the management and care of native forests from an ethical point of view, by recognising how stakeholder perspectives are not currently contemplated in the provincial and national laws regarding native forests (in this case family cattle ranchers). It therefore provides avenues to greater inclusion and participation for updates of the Territorial Zoning of the Native Forest of Entre Ríos province or in proposals of forest management (for example, Forest Management with Integrated Livestock or MBGI).

Although the benefits for family livestock producers, as local actors, are not immediate, we emphasise that recognising their relationship with and appreciation of the Espinal forest is an unprecedented event for the region (despite being owners and users of this ecosystem). Therefore, this information could make it easier to contemplate the perspective of this social actor for the management and care of the forest. On the other hand, on many occasions, scientific research did not manage to go beyond the academic sphere, leaving the information only accessible to a minority sector of society. In our case, the multiple dissemination actions that we generated, allow the socio-ecological information on the Espinal forests to be in a simple way available both for family livestock producers, and for the rest of society.

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

The doctoral dissertation of I. Rojido is now complete and will be defended in the coming months. He now has a position as an instructor in the National University of San Luis, where he will continue to implement these types of approaches to work in the Chaco region. On the other hand, the work in the Espinal is a long-term effort of the INTA-Paraná's Biodiversity Group. This year, Argentina has also announced new funding for projects to incorporate a community and participatory perspective to confront both climate change and the multiple benefits of forest ecosystems. Therefore, there are promising expectations to not only continue the work, but expand it based on these initial efforts. Furthermore, with regards to the conservation and education elements, we intend to plan strategies together with the Provincial Education Council to work on the content of the educational booklet in schools in the province of Entre Ríos.

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

As it was mentioned previously in this report, we plan to share the results of this project within the academic field through scientific articles, which we will be

publishing during 2022 and 2023 as products of the doctoral dissertation. Simultaneously, materials are being distributed to the community in general via INTA's extension agents and national coverage of digital libraries and resources. In the nearest future, we plan to initiate conversations with the Provincial Education Council to explore potential ways to work on the content of the educational booklet in schools in the province of Entre Ríos.

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

It will be essential that the information and experience generated from this project have long-term impact, including being widely socialised within the academic field. Therefore, the next step is to synthesise the information contained in Ignacio Rojido's dissertation so that it can be published as scientific articles. Furthermore, the ongoing work by INTA and particularly its Biodiversity Group help ensure the continuity with broader social and political/management processes associated with conservation in productive ecosystems.

## **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?**

We used the Rufford Foundation logo on all outreach materials generated. Thus, both the brochure and video on medium and large mammals, as well as the educational booklet, contain the Rufford Foundation logo. To access these materials, see the links in section 2.

Additionally, we presented a poster at a scientific national meeting in Agroecology, held in the city of Mendoza (Argentina) in 2019 (<https://bdigital.uncu.edu.ar/14315>), which also included the Rufford Foundation logo. The poster presented a summary the main results related with the social perception about the contributions of the native forest for people (<https://drive.google.com/file/d/1ff6nFrS0-lfj1b8oTvm3ok9-WjSIUU7Q/view?usp=sharing>), which is part of the information obtained during the first project financed by The Rufford Foundation. In this way, we shared part of our results with colleagues from the academic field.

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

**Ignacio Rojido-Nin** (B.S. Biodiversity) conducted his Ph.D. dissertation during the duration of this grant, working in the Paraná Experimental Station (EEA-Paraná). His dissertation used a socio-ecological analysis of the biodiversity and ecosystem services provided by native forests to develop indicators that can be applied to their management and conservation.

His role in this project was to plan and execute the survey data collection. In addition, he carried out meetings with family livestock producers where part of the results of both projects financed by The Rufford Foundation were presented. Finally, he collaborated in the planning and elaboration of the graphic and audiovisual dissemination materials generated.

**Dr. Sonia Canavelli** (Ph.D. Wildlife Ecology and Management) is a Research Scientist on biodiversity conservation and management at EEA-Paraná. She coordinates a regional research and extension project in livestock systems of Entre Ríos, with particular emphasis on the integration of economic, social and ecological dimensions.

In this project, she contributed to the planning and sampling design of the surveys. In turn, he participated in the meetings with family livestock producers, and she reviewed and corrected part of the dissemination materials produced. Finally, she coordinated the development of the educational booklet and lead the content and writing of several sections.

**Dr. Christopher B. Anderson** (Ph.D. Ecology) is a Research Scientist on social-ecological systems at the Austral Scientific Research Center (National Scientific and Technical Research Council) and an Associate Professor of "Development and Territory" at the National University of Tierra del Fuego. He is an Argentine delegate to IPBES's Methodological Assessment on the Diverse Conceptualization of the Multiples Values of Nature and its Benefits.

His role in this project was to assist with the planning and sampling design of the surveys. In addition, he collaborated with the writing of specific sections of the educational booklet. Finally, he was the one who organized the financial records of the project.

**Susana Boffa** (veterinarian) is an INTA extension agent in the Rural Extension Agency of La Paz, which interacts and works with livestock producers, municipalities and agrotechnical schools of this department.

Her role in this project was to facilitate contact with family livestock ranchers to carry out the surveys. On the other hand, she coordinated the meetings with the producers where part of the results of both projects financed by The Rufford Foundation were presented.