

Project Update: April 2018

Achievements to Date:

Ecological characterisation – Partially achieved

The selection of sampling sites and vegetation sampling to characterise these sites has been completed (August 2017 - February 2018). In addition, rodents and medium-sized mammals have been sampled (January-March 2018). However, if possible, it is expected to extend the study to new sites and also into a second field season in the spring-summer of 2018-2019.

Social characterisation – Partially achieved

The identification of the stakeholders has been completed. In addition, qualitative interviews were conducted with livestock producers and researchers and officials linked to the native forest (May – December 2017). The quantitative surveys are planned for winter-spring 2018.

Socio-ecological integration – Partially achieved

A team-partner workshop was held in August 2017.

During year 2 of the project, we also anticipate performing synthesis and outreach activities.

Unforeseen Difficulties to Date:

There were no major unforeseen events with respect to what was planned. However, we emphasise that during the preparation of the project, it was proposed to apply only qualitative techniques (interviews and focus groups). However, for epistemological and logistical reasons, interviews will be complemented with quantitative techniques (surveys) in year 2 of the project.

Important Outcomes to Date:

Scientific training: Four undergraduate and one graduate assistants have been included in the project to date, including training for mammal and vegetation sampling. This supersedes the original proposal of training one individual, in addition to the project leader who is conducting his PhD.

Stakeholder analysis: We have begun to recognise the values and uses of stakeholders in native forests: livestock producers, researchers and officials involved in the management and conservation of this ecosystem. This provides an initial entry point into constructing an understanding of how these stakeholders conceive the native forest and its relationship to both their productive activities and also their own wellbeing. This information will be used to inform the second stage of the quantitative survey as well as recommendations regarding integrated socio-ecological indicators that take into account the user rather than impose biologically-derived considerations of sustainability.

Mammal survey: Rodents and medium-sized mammals have been sampled in eight field sites where cattle ranchers carry out their activity under native forest – including sites that were identified as “good quality” (i.e. tall trees) and “degraded” (i.e. being

overgrown as thickets and low tree height). The first field season found that there are almost no small mammals present in these sites, based on using a grid of Sherman live traps. However, the complementary methodology of camera traps has proven to be useful to capture medium-sized mammals. These data, however, are still being analysed. Overall, though, this information on mammals is expected to be valuable, given the few studies about the community of mammals carried out within the study area.

Involvement of Local Communities:

Fourteen semi-structured interviews with livestock producers who carry out their activity under native forest have been conducted. The qualitative information generated allowed us to elucidate their links with this ecosystem and establish personal relationships with these stakeholders. We have found that both productive benefits obtained from the native forest (e.g., shelter for livestock) and non-productive benefits (e.g., firewood for cooking food) were recognised, which will be important when creating outreach materials and sustainability indicators that take into account these users' understandings of nature, rather than simply a biology-oriented focus of native forests and their conservation.

At the same time, during the interviews, we inquired about how different states of the native forest affect the capacity of this ecosystem to provide productive and non-productive benefits. Specifically, images from different states of the native forest (e.g., "tall" native forest, native forest under successional regrowth) were used to recognise the perception of producers about the capacity of each of these states to provide the benefits. Again, the information obtained, added to that generated through the surveys, will be disseminated so that it is considered in native forest management guidelines that enhance the benefits that livestock producers value.

Nest Steps:

As previously mentioned, this is a mid-term report after year 1 of the project, which will continue to develop for another year. In this sense, during the next month's surveys will be carried out to diverse social actors linked to the management and conservation of the native forest of the center-north of the province of Entre Ríos. The surveys will be made taking into account the qualitative information generated during the interviews.

The next most important steps are: 1) conduct the surveys of the social actors linked to the native forest of north-central Entre Ríos; 2) make an integration and synthesis of socio-ecological information; 3) generate dissemination and public presentation.⁵ Are there any plans to continue this work?

Sharing and Publicity:

Scientific communication: Because this project is a discrete and decisive 2-year period in a 5-year PhD programme, the results will be communicated through the thesis and its scientific products. It is anticipated, in this sense, that there will be at least three peer-reviewed scientific articles.

Public communication: To date, during the team meeting in August 2017 we carried out several media releases, via the INTA-Paraná communications outlets, including print, internet and video materials (see <http://inta.gob.ar/noticias/relacion-del-bosque-nativo-con-el-bienestar-social-y-los-mamiferos-silvestres-se-realizo-un-taller-en-inta-parana>; <http://inta.gob.ar/videos/taller-relacion-bosque-nativo-con-el-bienestar-social>). In year 2, we will continue these institutional communication strategies, but also conduct direct presentations and outreach materials that will be targeted at schools. Plus, we plan to participate in meetings of landowners and agricultural professionals, as well as officials related to this topic.

To date, the Rufford Foundation logo has been used to prepare presentation brochures during interviews (this material is uploaded on the Rufford Foundation project page).

In addition, it is expected to use the logo in the material generated for the dissemination of socio-ecological information.

Timescale:

During the first year of the project, The Rufford Foundation Prize was used to finance a large part of the proposed elements and activities, particularly the field research (e.g., presentation brochure for interviews, mammal sampling). As the project continues for a year more approximately, it is estimated that the anticipated funds will be adequate to develop the activities proposed for the remaining period.

Team & Roles:

Sonia Canavelli: Dr. Canavelli is thesis mentor to the project leader and as such was involved in all aspects of the project, including the selection of sites and the planning of vegetation sampling. In addition, she participated in the preparation of the interviews, and participated in the execution of some of them. Plus, she was part of the team-partner workshop.

Christopher B. Anderson: Dr. Anderson is thesis mentor to the project leader and as such was involved in most aspects of the project, including contributing to the identification of the relevant social actors for the study. In addition, he participated in the preparation of the interviews. Plus, he was part of the team-partner workshop.

Noelia Calamari: Dr. Calamari participated in the selection of sampling sites. In addition, she collaborated with the methodological design of vegetation and mammal sampling. Plus, she was part of the team-partner workshop.

Julieta Decarre: Dr. Decarre participated in the methodological design of mammalian samplings. In addition, he provided essential material to carry out such samplings. Plus, she was part of the team-partner workshop.

Jorge Dupleich: Mr. Dupleich collaborated with the identification of the relevant social actors for the project. In addition, he contributed to the contact with the livestock producers.

Juan Fonseca: Mr. Fonseca collaborated with the identification of the relevant social actors for the project. In addition, he contributed to the contact with the livestock producers. In turn, he participated in the execution of some interviews.

Susana Boffa: Ms. Boffa is an extension agent of INTA of the La Paz department, who collaborated with the identification of the relevant social actors. In turn, she participated in the execution of several interviews. Plus, she participated in the team-partner workshop.

Undergraduate/Graduate Field Assistants: Mr **Cristian Walker** (FHUC, Universidad Nacional del Litoral), Mr **Marcelo Juani** (FHUC, Universidad Nacional del Litoral), Mr **Juan Francisco Cataudela** (FHUC, Universidad Nacional del Litoral), Mr **Gabriel Gareis** (FCyT, Universidad Autónoma de Entre Ríos), Lic. en Biodiversidad **Mariano Balboni** (FHUC, Universidad Nacional del Litoral), participated in the sampling of mammals and vegetation. Plus, Mr Cristian Walker was part of the team-partner workshop.



Zorro gris (*Pseudalopex gymno-cercus*) @Dpto La Paz durante enero de 2018.



Guazuncho (*Mazama gouazoubira*) ©Dpto La Paz durante enero de 2018.