Final Evaluation Report

We ask all grant recipients to complete a project evaluation that helps us to gauge the success of your project. This must be sent in **MS Word and not PDF 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 – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please DO NOT fill in and submit this form until the project has been completed.

Complete the form in English. Note that the information may be edited before posting on our website.

Please email this report to jane@rufford.org.

Your Details	
Full Name	M. Gimena Pizzarello
Project Title	If you plant it, they will come: reconnecting highland grassland habitats for butterflies of the Argentine Pampas (PHASE II)
Application ID	45135-2
Date of this Report	4 December 2025

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
Identify Prime Butterfly Areas within highland grassland remnant patches and peri-urban green spaces surrounding Tandil.			X	Butterfly species presence varies with phenology, therefore all highland grassland, periurban, and urban sites were visited monthly during the flight period (October to April). We completed four 500m transects at each "Prime Butterfly Area." We did the same for 4 periurban green spaces (three 300m transects for each site), and 100m transects at four public urban parks. We found 19 species that are shared amongst highland grasslands (highest native plant composition and habitat quality), periurban, and urban sites (lowest native plant composition and habitat quality), 4 species that are exclusive to highland grassland remnant patches (which are considered to be sensitive grassland specialist species), 22 shared species in highland grasslands and periurban sites (these two types of sites are more similar to each other as far as habitat quality), 3 exclusive to periurban sites, 2 shared between urban and periurban, and 2 shared between urban and highland grassland sites. These last

				4 species are species that have included exotic plants as host plant species, and have found this resource in periurban and urban sites. A total of 52 species have been registered across the three types of sites.
Evaluate the effects of increasing habitat connectivity within the city by planting native host plants and nectar resources typical of highland grassland habitat in green areas within the city, particularly in schoolyards.			**X**	We were able to successfully install 11 butterfly gardens, mostly in collaboration with schools and some in public green areas around the city of Tandil. These "pocket gardens" help make the urban matrix more favourable for butterflies, offering host plant and nectar resources. These butterfly gardens are maintained and monitored by the education institution where they are installed. We have found that for the garden to have a favourable evolution, the responsible adult that acts as a liaison to our project is key. These adults (mostly teachers and tutors) help organize actions in situ at the schoolyard, and are the ones who later intertwine the garden to their teaching and curriculum. We provide help in identifying the butterflies (offering our butterfly guides and teaching materials) and have made a survey to aid in monitoring activities. We ourselves visit some of the gardens (particularly those that are not present in schoolyards), however we need to plan out our monitoring activities at the gardens more robustly to be able to analyze them statistically. For

				example, we must visit all sites at very similar timeframes so as to make sure that butterfly phenology is comparable. We have found that most butterfly species that have been able to quickly use and be seen on a regular basis at the gardens are flexible species which are present at our three types of sites (highland grassland, periurban, and urban). These include: • Actinote pellenea, • Danaus erippus, • Dione vanillae, • Erynnis funeralis, • Euptoieta hortensia, • Eurema deva deva, and • Strymon eurytulus. We have preliminary evidence to suggest that native plant richness (planted in the gardens) correlates with butterfly species richness at these sites.
Promote awareness of the threats faced by butterflies with regards to their habitat, the native Pampean grasslands, while engaging the local community, particularly schools and community vegetable gardens, in conservation efforts.			**X**	We held multiple workshops at schools, bookfairs, plant nurseries, Sendero Pampa, and advised schools that presented their butterfly garden at the local and regional science fair. We continue to work on our audiovisual guides for identifying butterflies (our active IG account @mariposasdetandilia), and we completed and shared a booklet and powerpoint that we created related to the knowledge gained through our monitoring, and general butterfly garden experience with the educational community.

				Some of our community activities include: -3 nature walks at Sierra del Tigre Natural Reserve (Tandil) with 2 different schools and 1 with an adult group (approximately 150 participants in total), to identify native plants and their associated butterflies. -at least 9 workshops at the following institutions: Jardin Crecer, Escuela 42, Feria del Libro Tandil, Vivero MTE, Escuela Comercio, Escuela Spinetta, Jardin Santa Cecilia, Colegio de la Sierra, and at our University (UNICEN) as part of an extracurricular training course. The number of participants varied per institution, but as a whole we believe the total number of participants to be roughly 250 participants (amongst these students, adults, and members of the general community). -at least 9 visits to Sendero Pampa and our University's Native Plant Nursery including the following institutions: Jardin Zarini, Escuela Normal, Jardin Arroyito, our province's Ministry of the Environment, Mathematician Congress, Colegio de la Sierra, Escuela Spinetta, Colegio Martin Rodriguez, Escuela Aprenderes. We estimate an approximate number of 270 participants in total as well, as school groups tend to

				be of around 30 students per group. We have a google form that we send to our visiting school's teachers in order to see what they felt of their experience at Sendero Pampa. Most teachers fill it out, and we have received much enthusiasm from their feedback. We need to see how to analyze this within frameworks from the social sciences.

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

a). We were able to continue monitoring the key Prime Butterfly Areas within highland grassland remnants surrounding the city of Tandil which had been identified in our previous project, and were able to also include periurban and urban green spaces in this year's project, to see how butterfly assemblages change with increasing urbanization. We also were able to measure in situ habitat quality, visiting our butterfly transects in highland grasslands, periurban, and urban sites, using a quadrat to measure host plant coverage and nectar resources for butterflies available at all sites. This plant monitoring has allowed us to plan which plant species should be used in our butterfly gardens, as phenology differs with plant species as well. All our monitoring efforts were carried out during one adult flight season from early spring to late summer (October 2024 to April 2025). Within our periurban monitoring sites, we included Parque Tunas, which is a public park that is currently being considered by neighbors as an important area for biodiversity conservation, as well as an important green recreation area. We want to continue to uphold the importance of these public green (periurban) areas around Tandil, as they are where citizens/tourists interact with the surrounding natural environment, particularly since most Pampas habitat present in the Tandilia Mountains are located on private lands, where everyday people do not have access.

b). By continuing with this second phase of our project, we were able to consolidate our project team and expand our network of participating schools. Our project has been reinforced by working with our University's campus reserve, Sendero Pampa, (https://senderopampa.unicen.edu.ar/) which has allowed us to gain even more momentum within the education community, as we received schools at this natural reserve, and later planted butterfly gardens with participating schools. By continuing to create habitat for butterflies, we were able to bring about discussions related to the conservation of butterflies and other wildlife of the Tandilia Mountains. Some

schools that participated in our previous project have been empowered and students have gone to other schools to share the knowledge gained through the butterfly gardens, helping new schools implement the same ideas.

c). We have begun constructing and expanding a plant nursery at our University's campus natural reserve, Sendero Pampa, projecting towards future project sustainability, by figuring out a way to be able to cultivate the native host plants and nectar resources which we later take to education institutions. Our in-situ habitat monitoring has allowed us to plan out our butterfly gardens by gaining knowledge on native host plant species and nectar resources, as well as their phenology. We also have found that many of these species are quite rustic as far as requirements and easy to reproduce.

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

During this project, we were able to better handle the school year timing (since in Argentina, our spring corresponds to the end of the school year, sometimes limiting the possibility of teachers being able to incorporate the butterfly gardens into their curriculum). Since we were able to continue working with some schools from our previous project, some gardens were already established, and this allowed for a lot of interaction between students and visible changes in butterfly visits. We also decided to contact schools early (at the start of the school year), our late summer, and receive them at Sendero Pampa, so that they could begin discussing butterflies and their conservation challenges in the classroom, and later plant the butterfly gardens in the earliest part of springtime (towards the end of the school year). These gardens will be more established by the beginning of the next school cycle, for teachers to be able to integrate with next year's students!

Measuring the effects of our restoration actions is pivotal to any conservation action, and we made a survey with ESRI's Survey123 app so that teachers could implement them prior and after installing the butterfly gardens, but we still need to perfect a systematic system for registering changes in butterfly assemblages before and after butterfly garden implementation. This survey is so that the education community can record the butterfly species that are observed at the butterfly gardens whenever they visit them. The survey compiles the responses in an excel document. Beyond measurable changes in butterfly assemblages, we feel that changes in students' acceptance and understanding and caring for Nature are also elements to this project that favor biodiversity conservation; in this sense, changes in attitude that may be generated by our project should be measured as well, and we are looking to include social scientists from our University to help us with this.

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

This project continues to be largely built around becoming involved with and building a network with different stakeholders within our local community. We continued to lead workshops in the schools where the butterfly gardens were planted prior to their implementation, so that the teachers could integrate the gardens with their core curricular activities, either at the schools or at our natural reserve, Sendero Pampa. This year we also incorporated workshops in community plant nurseries (Vivero Semilla Comunal; www.instagram.com/vivero.semillacomunal/?hl=es), and also at Tandil cultural events such as the annual Book Fair, and Night of the Museums, so that different people from our community could learn about our project. We also led field outings during the springtime that included organizations from the local community, including local NGOs (Asamblea por la Preservación de las Sierras de Tandil), and an environmental science group led by teachers (Centro de Educación Ambiental para Docentes). These outings were important to us, as they allowed us to share our knowledge of butterfly and native plant species within highland grassland remnant patches considered Prime Butterfly Areas, and were open to the entire community. The native plant nursery which we are currently working on is upheld through the help of professors, students, and neighbors from our community. We feel that in order for minds to be changed, and to empower our community, actions must be generated from the bottom up, allowing for people to be inspired and get involved in making a difference within our communities.

5. Are there any plans to continue this work?

Yes, we plan to continue working with our project community, including the different schools and organizations. We continue to believe that working with a diverse group of people is really rewarding, and building community has allowed us to learn a lot from the people we met and built relationships with. Also, I am studying the ecology and conservation of butterfly assemblages present in remnant patches of Pampas highland grasslands of the Tandilia Mountains, and in peri urban and urban green spaces as a part of my Doctoral studies. This project allowed us to have a baseline and comparative study of the butterfly populations and species present (both grassland specialists, and generalists species), as well as the interactions that they have with native host plants and nectar resources, and we will continue to study these species as a model for conserving the Pampas highland grasslands in the Tandilia Mountains, and answering ecological questions. As specified in our previous project, we maintain contact with participating schools and will continue to give workshops and carry out activities with teachers. This coming year we plan on visiting schools that are further away, including some rural schools which we have already begun to work with.

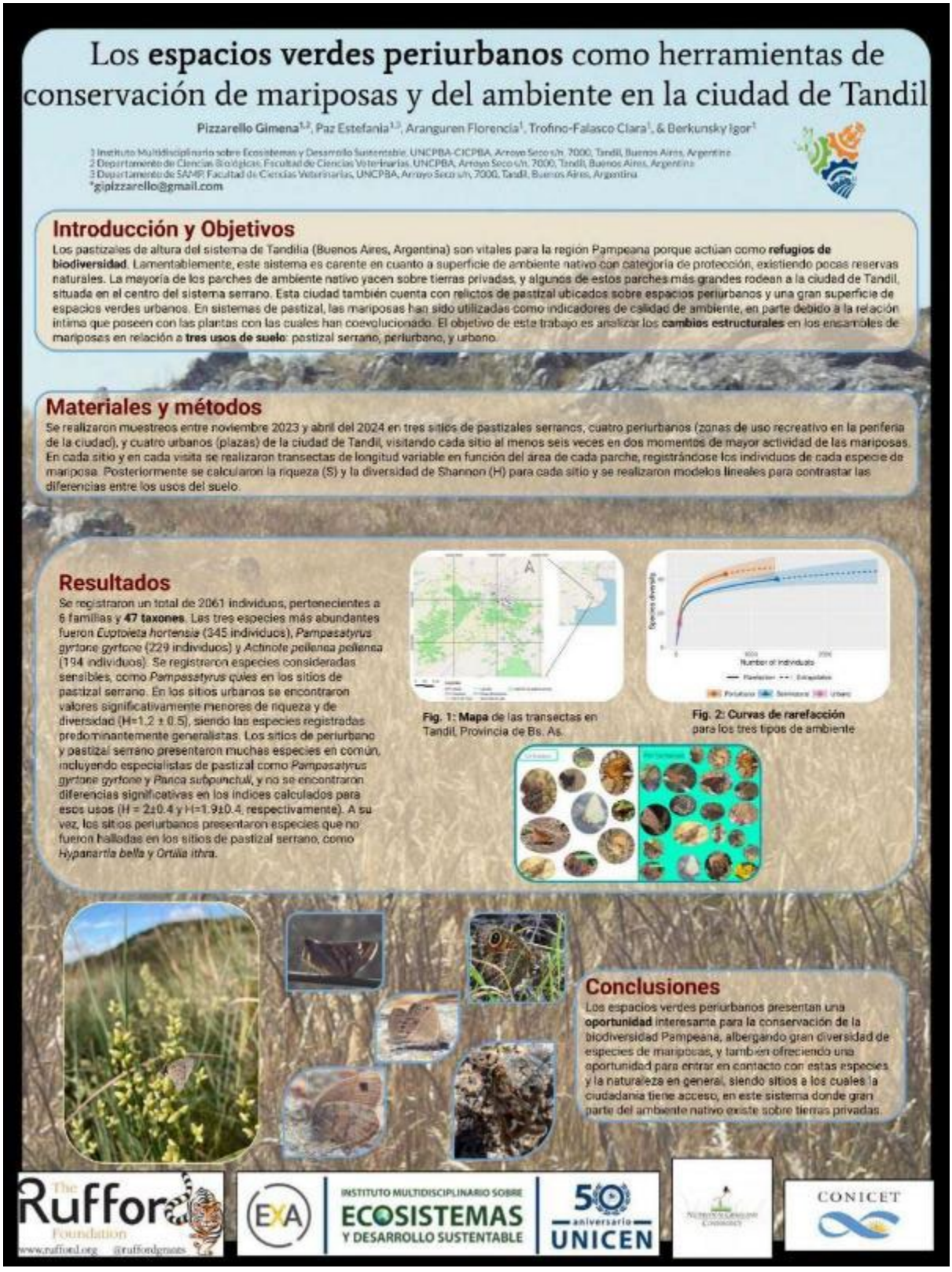
6. How do you plan to share the results of your work with others?

We presented our results (two poster presentations) in the IV Jornadas Internacionales y VI Nacionales de Ambiente which was held in November (2024) in Viedma, Río Negro, Argentina. All of the information regarding butterfly monitoring and population studies and the importance of native plants in public green areas for butterfly conservation will also be presented in my Doctoral dissertation (Doctorado en Ciencias Aplicadas, mención Ambiente y Salud; Facultad de Ciencias Exactas, UNICEN). We plan on publishing the work related to the butterfly gardens in a scientific journal such as Conservation Evidence. I am currently working on a scientific paper regarding the butterflies and native host plant species of the Tandilia Mountains. Apart from this type of academic communication, we have given multiple talks both in participating schools and at our University (Universidad Nacional del Centro de la Provincia de Buenos Aires, UNICEN), regarding the importance and the effects of planting native host plants and nectar resources for biodiversity conservation, particularly that of native pollinators such as butterflies. These talks were also a key part of our trail walks in nature, which we shared with different community organizations and which were open to the entire community. I was able to participate in an important international GIS training program sponsored by the Society for Conservation GIS, where I was able to generate this story map to be able to share what we have been able to do with our project:

https://storymaps.arcgis.com/stories/c2169065b0aa4ecf8e0316a927dc49b8

Left: one of our butterfly gardens that shows a larval stage of the butterfly Actinote pellenea present on its native host plant, Hatschbachiella tweedieana, which was also planted in many of our other butterfly gardens. Right: Strymon bazochii using the native Chromolaena hirsuta as a nectar resource. We plant a mixture of native host plants and nectar resources such as these at our butterfly gardens.

Above shows me presenting one of the posters at IV Jornadas Internacionales y VI Nacionales de Ambiente in Viedma, Argentina. This poster talks particularly about our butterfly (biodiversity) gardens as a conservation tool, and describes our case study within the city of Tandil, Argentina.



This image is of the other poster we presented at IV Jornadas Internacionales y VI Nacionales de Ambiente which focuses on our monitoring efforts at Prime Butterfly Areas within semi-natural and periurban sites surrounding Tandil. These analyses will be

further analysed within my doctoral thesis titled "Factors that affect the structure and function of butterfly assemblages (Superfamily: Papilionoidea) in highland grasslands and their importance in conservation" that I'm carrying out at UNICEN.

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

The important next steps will be to continue to grow our network of participating institutions, particularly within the education community, but also within other cultural settings, such as community libraries, and cultural events within Tandil. We will place a considerable amount of our energy towards completing our native plant nursery at our university's campus, next to its natural reserve (Sendero Pampa), in order to reproduce the plants that we now know will offer nectar resources throughout the spring and summer, as well as the native host plants which we were able to identify through our vegetation monitoring. We feel it is important to continue to collectively take care of our native butterflies and their associated plant species. The community that we have built through the development of this project has helped us do just that.

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 used the Rufford logo in all talks (to schools and the general community) and in scientific meetings (environmental and ecology scientific conferences) where we discussed our project and its outcomes. We will also acknowledge the Foundation in the scientific literature that we are currently preparing to publish as a result of this project. We also participated in the Society for Conservation GIS international training where we acknowledged that our project was able to be carried out thanks to the Rufford Foundation's funding.

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

Dr. Clara Trofino-Falasco is a biologist, and her doctoral thesis focused on the conservation of grassland songbirds of the Argentinean Pampas. She was pivotal in the first phase of our previous butterfly garden Rufford Project, as she had been working in the region for a long time, and previously developed important relationships with many landowners upon whose lands lay many natural highland grassland habitats which we identified as "Prime Butterfly Areas". She helped us plan our monitoring efforts in highland grassland remnants, as well as periurban and urban areas.

Maximiliano Nicotra is a film director, and he has worked with us over the last years, collaborating both in the field, and recording and editing beautiful screenshots of butterflies and their habitats, film elements which have been and will continue to be used in our Mariposas de Tandilia Instagram account (@mariposasdetandilia), and

sister site https://mariposasdetandilia.myportfolio.com/. He was in charge of generating infographic materials including stickers, posters, signs, and games which we used in order to spread enthusiasm towards the conservation of butterflies, as well as the information that we acquired regarding our native grassland butterflies, and their habitat, the highland grasslands of the Tandilia Mountains.

Dr. Cecilia Ramirez is a biologist whose doctoral thesis was centered around the importance of conserving green areas such as borders of railroad tracks for grassland bird species. She leads multiple outreach (Extension) projects at the university where we are based (UNICEN, Tandil), and has very important and deep bonds with the overall community in Tandil. She and I work together at our university campus' natural reserve, Sendero Pampa. As a part of continuation of this project, we are working towards installing a native plant nursery in this natural reserve. Cecilia was in charge of helping me receive school groups at our campus natural reserve (Sendero Pampa), and maintaining contact with these institutions, in order to keep building our network of participating schools and community.

We have a large community base through our work in university community outreach projects. This second phase of our Rufford project would not have been possible without the cooperation and participation of this base, which includes many neighbors, teachers, tutors, and students (at elementary, middle, high school, and university levels), who showed interest and helped us carry out the butterfly gardens, as well as sharing in activities such as nature walks, and cultural gatherings (Tandil book fair, and Night of the Museums Tandil), where we shared concerns and information regarding the threats that our Pampas grassland ecosystem faces and actions which we can carry out to spread awareness within the overall community.

10. Any other comments?

Part of the results from this project will be used for the advancement of my PhD, but a large portion is to give back to our community, as there continues to be a lot of demand from the education and overall community. Butterflies and their related native host plants and nectar resources had not been very studied in our region, and the knowledge that we were able to obtain through our monitoring has been shared with our community in Tandil in large part thanks to the Rufford Foundation's support. We want to thank the Rufford Foundation for helping us carry out this project as well as our previous one. We have really built a wonderful community that continues to expand as time goes by, engaging new groups and interested parties. In this digital age, where technology has helped to separate us behind screens, we hope to create connections between people, and with nature. We feel that it's important to not only inspire our community by showing that small actions and change are possible, but also empower them to join the movement.

Below are images from our project:

Planting our gardens!


Plantas Nativas
VIVERO – UNICEN


Galaxy A14

Working with schools (classrooms and science fairs):


UESTRAS GUARDIANAS SERRANAS


BRUSQUILLA
PAJA COLORADA
PILARCITO
YERBA CHARRUA
SAUCE
MILENRAMA
LERIA
PAVONI
GOMFRENA
ROMERILLO
Baccharis coridifolia
CHILCA
Baccharis dracunculifolia
CHILCA OLOR
POMPON

Nature walks!

Cultural events:


Nativas... ¡Hogar de mariposas!


RESERVA
PAMPA
JARDINES
CON ESPECIES
NATIVAS

Cerro Leones: sembraron plantas nativas y recordaron a las mujeres que participaron de la Huelga Grande

Fue una iniciativa de la Asamblea Barrios de Piedra.

El Eco de Tandil

ANNEX – Financial Report

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