

## Final Evaluation Report

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Your Details	
Full Name	Juan Manuel de Luna González
Project Title	Research and conservation of the spiders of "El Cielo" Biosphere Reserve in Tamaulipas, Mexico
Application ID	30377-1
Grant Amount	4885
Email Address	scolopendra94@gmail.com
Date of this Report	11-February-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
Sampling events				We sampled the area for 12 months, from October 2020 to September 2021.
Species list				Some species are undescribed; we will wait until their description to publish the listing.
New publications regarding the results of our samplings				One already published, two in revision and two more in the making as of 2022.
Training of undergraduate students				Trained the two students which enrolled before the project and five more which joined later.
Held two workshops on spider identification				Only one of the two workshops was able to be made due to COVID restrictions.
Improvements towards spider conservation				We found two species which require protection under the NOM-059-SEMARNAT, they will be presented at the next call.

**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.**

The COVID-19 pandemic made this project very difficult to perform the workshops; one had to be cancelled altogether due to an increase of COVID cases in the Gomez Farias region. We tackled this issue by having more informal meetings with the people of the regions, particularly in two localities where the sampling events took place.

While the other workshop was undertaken, it had an attendee limit of 20 people; we intended to repeat it, but the university closed doors completely to any events. From February 2022, the UANL will return to full capacity as for the Governor's rules, so we plan to repeat the workshop on spider identification for the students, even if is out of schedule.

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

The first outcome of our project is that the diversity of such poorly studied group was finally assessed for the area. We succeeded in generating a general list of species, also finding several undescribed species in the process as well as invasive species which could be used in the future to monitor anthropogenic disturbance.

The second outcome is the reception of the local communities, especially two, which were extremely approachable and learned almost as much as we learn from them. Our knowledge and the importance of the organisms we study was well accepted by young and old alike, and we feel like we succeeded to transform fear and rejection into genuine interest for these animals.

The third are the conservation outcomes, two species: a tarantula and a trapdoor spider, were found to be micro-endemic; the tarantula is an already described (albeit poorly) species which will need to be redescribed, and the trapdoor is undescribed. After the taxonomic work is completed, both will be nominated in the following NOM-059-SEMARNAT call for them to be elevated to a protected status under Mexican law.

**4. What do you consider to be the most significant achievement of this work?**

**5. Briefly describe the involvement of local communities and how they have benefitted from the project.**

While the local communities were benefitted economically, since all things needed for fieldwork were bought from local businesses, I think our biggest impact was in two communities, "La Azteca" and "La Bocatoma", where we had time to spend with the inhabitants between sampling events, we heard and learned much from them, and give information in return.

Specially concerning our target taxa, spiders, we learned that people greatly feared the tarantulas, wolf spiders, and huntsman spiders; with a bit of encouragement and the use of local specimens collected in people's gardens and yards, we dispel the misinformation regarding these organisms, and explain them the importance they have in the ecosystem.

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

Absolutely! We want to keep sampling and expand to other groups of non-charismatic fauna but will not do so in 2022. This is since Omicron is even more contagious than previous COVID variants, at the time it is very troublesome to obtain permits to visit schools or manage workshops targeted towards local communities, so we decided to delay any further projects this year.

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

Via publications, the first contribution of our work has been already published, where we recorded two invasive species for the area, whereas two more articles are in revision and deal directly with the arachnid fauna. And via documents and presentations shown to government officials so they can apply measures for the conservation of both the spiders and their habitat. An electronic publication on the spiders of the reserve is also in the making.

The vouchers are deposited in the Universidad Autonoma de Nuevo Leon, as to allow other scientist to revise the material collected.

**8. Timescale: Over what period was the grant used? How does this compare to the anticipated or actual length of the project?**

March 2021 – February 2022

Since COVID restrictions delayed our funding, I initiated the project using funds from my CONACYT scholarship and started the sampling events in October 2020; funds from the Rufford's Small Grant were received by March 2021.

**9. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.**

Item	Budgeted Amount	Actual Amount	Difference	Comments
Laboratory supplies	150	150		
Leica EZ4 stereomicroscope	2019	2019		
Fuel	700	880	+180	I did not consider fuel price differences between the city and the towns, so we ended up spending more money on gas by buying it locally.
Car rental (36 days x 30£)	1080	1080		
Food for fieldwork	360	360		
Wages for fieldwork for students	576	576		
<b>TOTAL</b>	<b>4885</b>	<b>5065</b>	<b>+180</b>	

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

Northeast Mexico is a region whose diversity has not been fully explored and most of its protected areas have not been properly sampled, especially regarding non-charismatic arthropod fauna such as spiders. Given this, the next important step is to plan more samplings in other areas of the region and keep on training students to create a larger team to monitor all these areas.

**11. 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?**

It was used in presentations mostly, but also in a poster; we plan to use it again when we publish the guide to the spiders of the reserve.

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

**Roberto Carlos García Barrios**

Undergraduate student, helped in sampling, sorting and identification. Present in 12/12 sampling events.

**Jorge Madrazo Fanti**

Undergraduate student, in helped in sampling, sorting and identification. Present in 8/12 sampling events.

**Martín Fernando Garza Lara**

Undergraduate student, helped in sampling. Present in 4/12 sampling events.

**Abraham Juárez Contreras**

Undergraduate student, helped in sampling. Present in 3/12 sampling events.

**Eduardo David Ortega Gaytán**

Undergraduate student, helped in sampling. Present in 2/12 sampling events.

**Mauricio Colchado Bermejo**

Undergraduate student, helped in sampling. Present in 2/12 sampling events.

**Victor Alonso Hernández González**

Undergraduate student, helped in sampling. Present in 2/12 sampling events.

**Josué Maldonado**

Local participant, helped in sampling. Present in 6/12 sampling events.

**13. Any other comments?**

I would like to express my upmost gratitude towards The Rufford Foundation for helping me fund my dream project in my absolute favourite place in the world, which would have been all but impossible without their help. Our project could have well ended when the pandemic arrived, but this organisation still granted me the funds to keep on and for that I am very grateful, it was truly an honour being sponsored.