

International House London
Paola Nogales Ascarrunz
Restore Peace with Nature
Yungas, La Paz- Bolivia

Proposal Application

Montane forest of the Yungas region in Bolivia is one of the most unique ecosystems in the world with high levels of diversity and endemism on plants, animals, and other unique species¹. In recent years, however, this ecosystem has been highly fragmented for human activities like crops and uncontrolled human-induced fires². The consequences of deforestation have affected the daily living of rural communities, crops do not grow in the same way and that affects the rural economy. Nowadays, people from these communities realize the importance of the forest, and all the services that nature gives to them, and they want to restore the natural habitat. Moreover, they want a sustainable alternative for economic income without destroying the nature around them.

This project hopes to contribute to habitat restoration in order to boost local peoples' economies and enable them to earn a fair living from nature-based activities like honey production. For this, I request a Davis Projects for Peace grant to rewild pollinators (bees and butterflies), to monitor the restoration process and promote the local economies.

Proposal Narrative

Pollinators like butterflies and bees are key in habitat restoration: they can carry pollen over great distances, and they are food for other species such as amphibians, reptiles, and mammals³. In the Montane Forest of the Yungas region in Bolivia, there is one initiative led by Senda Verde, called 'butterfly-sky', this project aims to contribute to the conservation of native butterflies, native bees, bats, and hummingbirds. Building special domes for the breeding of butterflies, which will be able to fulfil the pollinating function in places adjacent to the Senda Verde properties. This project will work closely to the Senda Verde initiative to have pollinators (bees and butterflies) and to release them in the community 'Santa Rosa del Vagante', to help restore the natural habitat. Moreover, people of Santa Rosa del Vagante will be trained in beekeeping in order to produce honey to boost the local economy. Finally, camera traps will be set near the community to monitor the wild animals that live in the community and the images generated will be used to promote eco-tourism in this area.

Proposed activities

Breed butterflies

From 2020 Senda Verde started to breed 20 species of native butterflies in the laboratory. We will breed at least 300 butterflies from 20 species to be released by people from Santa Rosa del Vagante. This activity will take one month in duration.

Honeybees

People from Santa Rosa del Vagante will have a workshop on beekeeping, the workshop will take three days to deliver. Attendees will learn how to build a honeycomb foundation and observe live colonies housed in see-through hives. Moreover, people will learn about the process of honey production, pollen storage, and wax building. Therefore, they will know more about native bees and their role in nature. As a second step, Santa Rosa del Vagante will have their own beekeeping backyards with 50 boxes of bees. This activity will help them to boost their economy by selling the honey and the propolis.

¹ WWF (2022, January). <https://www.worldwildlife.org/ecoregions/nt0105>

² Gallegos, C. Silvia, Hensen, I., & Schleuning M. (2014). Secondary dispersal by ants promotes forest regeneration after deforestation. *Journal of Ecology*, 102, 659-666.

³ Ghazanfar, M., Malik, M. F., Hussain, M., Iqbal, R., & Younas, M. (2016). Butterflies and their contribution in ecosystem: A review. *Journal of Entomology and Zoology Studies*, 4(2), 115-118.

Plant flowers

For bees and butterflies is important to plant flowers. Two hundred and fifty flowers will be planted in Santa Rosa del Vagante to support the bees and the butterflies. This will be achieved by people of the community and volunteers; this activity will take one weekend to complete.

Monitoring

Animals that live near Santa Rosa del Vagante will be monitored using with 5 camera trap stations. This will show people from the community that their habitat is being restored, and that the animals are coming back. Moreover, they will promote the site as a touristic place showing the diversity there.

Timetable

<i>Phase</i>	<i>Activities</i>	<i>Week 1</i>	<i>Week 2</i>	<i>Week 3</i>	<i>Week 4</i>	<i>Week 5</i>	<i>Week 6</i>	<i>Week 7</i>
<i>Logistics and preparation*</i>	<i>Meeting with locals of Santa Rosa del Vagante</i>	X						
	<i>Procuring materials</i>		X	X				
	<i>Meetings with Senda Verde</i>	X	X	X	X	X	X	
	<i>Recruit team of volunteers</i>		X	X				
<i>Project implementation</i>	Butterfly breeding				X	X	X	
	Butterfly release							X
	Honeybee workshop						X	
	Establish the honeybee boxes in the community							X
	Plant flowers							X
	Establish the monitoring stations							X

**The logistics and preparation activities will be running online*

Goals

In the short term, this project will contribute to peace by bringing community members together to restore their forest, releasing butterflies, and raising honeybees. In the long term, the community will increase its productivity through the sale of honey and the promotion of ecotourism. Ultimately the community will be a model in the region of sustainable and peaceful growth with nature.

Indicators of success and impact

- the release of 300 butterflies of 20 different species.
- one workshop with the people of Santa Rosa del Vagante community
- after the workshop the installation of 50 honeybees' hive boxes in the community.
- 250 native flowers will be planted
- 5 camera trap stations placed in the community environs.

Name: Paola Nogales Ascarrunz

Project Name: Restore peace with nature

School: International House London

Note: all funds in US dollars.

Projects for Peace grant: \$10,000.00

Additional Funding, if any:

Total funding available: \$10,000.00

TOTAL FUNDS REMAINING:

\$-

TOTAL EXPENDITURES:

\$10,000.00

Student Expenses					Project Expenses				
Travel (Including Airfare)	Lodging	Communications	Food (Biweekly)	Miscellaneous	Non-Student Travel and Lodging	Direct Equipment and Supplies	Marketing and Event Support	Staffing Costs	Miscellaneous
1300	250	200	240		260	1300	1500		1400
50						1500			
						2000			
Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
\$1,350.00	\$250.00	\$200.00	\$240.00	\$-	\$260.00	\$4,800.00	\$1,500.00	\$-	\$1,400.00

Total Student Expenses: \$2,040.00

Total Project Expenses: \$7,960.00

Paola Micaela Nogales Ascarrunz

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“My main interest as a biologist is Conservation Biology. I am confident that education outreach activities are one important aspect of conservation.”

Education

2021-22 Ecological and Evolutionary Genomics. MSc.- Queen Mary University of London
2019 Biological Sciences, Licence (undergraduate) – Universidad Mayor de San Andrés (UMSA); La Paz, Bolivia.

Research Experience

2021 **Universidad Mayor de San Andres (UMSA) - Institute of Chemistry Research.**
Principal Investigator: Project “Improving jaguar conservation efforts through genomics”.

2020 **Environment and water Ministry – General direction of biodiversity.**
Consultant: Native maize, compilation of information to protect the genetic resource in Bolivia.

2020 **Universidad Mayor de San Andres (UMSA) - Institute of Chemistry Research.**
Researcher: Sequencing Cytochrome B gene of new species of small mammals for wildlife conservation society

2019 **Oxford University – Oxford Martin Programme on the Illegal Wildlife Trade.**
Research assistant; Hired by: Melissa Arias Ph D.: Addressing the illegal trade in jaguar parts in Bolivia: an evidence-based approach to inform conservation actions

2019 **Laboratory of environmental health, National Institute of Health Laboratories.**
Laboratory technician at Laboratory of environmental health: Detection of GMOs in food.

2018 **Bolivian Association for Research and Conservation of Amazonian Andean Ecosystem.**
Undergraduate researcher: Monitoring and Research

2018 **Universidad Mayor de San Andrés (UMSA) – Colección Boliviana de Fauna (CBF)/Entomology**
Research assistant: The geographical distribution of Orthoptera families in Bolivia.

Leadership and volunteer activities

2020 **Environment and water ministry – Translocation of a Puma concolor**
Scientific committee

2018 **VIII Bolivian Congress and IV Latin-American congress of mammalogy**
Organizing committee

2017 **Municipality zoo Vesty Pakos**
Volunteering

Breeding in captivity of Andean flamingos

2016 **Andean Cat Alliance (AGA)**

Volunteering

Environmental education activities

2017/2015 **Colección Boliviana de Fauna - mammalogy**

Volunteering

Presentations in workshops, meetings and conferences

2021 "From the small tilcayo to the big jaguar: Bolivian felids", *Lecture series "Bolivia ecologica", Centro Ecopedagogico Simon I. Patiño. May, Santa Cruz – Bolivia.*

2021 "Conservation biology in Bolivia". *Workshop: A field biologist, Nos Gusta la Ciencia program. April, Santa Cruz – Bolivia.*

2020 "Future projects on conservation genomics on Jaguars (*Panthera onca*)". *Workshop Jaguar conservation alliance. Environment and water ministry – SAVIA, IUCN National Committee of the Netherlands, February. Santa Cruz – Bolivia.*

2018 "Habitat use of jaguar (*Panthera onca*) at Ixiamas municipality". *VIII Bolivian Congress and IV Latin-American meeting of mammalogy, July. La Paz - Bolivia*

2016 "Mammalogy". *Second festival of science and technology. Universidad Mayor de San Andres. May. La Paz – Bolivia.*

Grants

2021-22 **Chevening Scholarship award (FCDO)**

2021 **Quick start in mitigation actions** – Geoffroy's cat working group

2020 **Wild Genomes** – Revive and Restore.

2020 **Future Conservationist Award** – Conservation Leadership Program

2019 **Travel grant for education** – Bolivian mammalogy network

Languages

Spanish Mother tongue

English Fluent

German Basic

Other Skills

Geographic information system

Programming languages (C++, UNIX)

Bimolecular techniques

Memberships

2018 –to date Bolivian Network of Mammalogy (RBM - Red Boliviana de Mastozoología)

2020 –to date Wild Felid Research and Management Association

2021 –to date Geoffroy's cat working group

Interest

Conservation genetics – Wildlife trade – Conservation biology - Topical ecology – Mammals

Senda Verde
N Yungas Rd Coroico
Bolivia

January, 16th, 2022

To
Davis Projects for Peace Grant

To whom it may concern,

The purpose of this letter is to formally support the proposal entitled 'Restore peace with nature', presented to you by the biologist, Paola Nogales Ascarrunz.

Senda Verde (SV) is a private nonprofit organization established in 2003 in Los Yungas – La Paz. SV is recognized for its high standards of wildlife care, transparency, governance, innovation, collaboration, integrity and commitment, being the refuge the first choice for the public authorities to transfer rescued animals. Although in need of continued support, we have more than 900 safe, healthy and happy animals in our care that genuinely faced death and were destined to live as pets. These animals range over 68 species and many of them are vulnerable to extinction in the wild. SV is recognized for its high standards of wildlife care, transparency, governance, innovation, collaboration, integrity and commitment, being the refuge the first choice for the public authorities to transfer rescued animals. We work very close and in harmony with local and countrywide communities and indigenous groups, and we are always involved in all community doings. The wellbeing and involvement of people is essential to protect nature.

As part of our holistic approach towards conservation we preserve the forest and existing wild animals within our property and nearby areas. Hundreds of different trees are planted yearly, contributing to the surrounding nearby flora, fauna and CO2 compensation. SV advocates raising plants and trees from a wide variety of native tropical species. These forest incubators ensure something would survive if the existent vegetation became unsuitable in a changed climate. Institutionally, we consider that the proposal 'Restore peace with nature', is of great importance, and we offer our support for all the activities.

We acknowledge your institution, and thank the opportunity you are giving to Bolivia for restoring the linkage between humans and nature.

Yours sincerely,



Virginia Ossio
Co-Founder
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