

ANNUAL REPORT

2023



fundación
para la tierra



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OUR MISSION

The conservation of fragile habitats in Paraguay through scientific research, environmental education and community engagement



OUR VISION

To transform Paraguay through conservation action.

We envision a future where Paraguay's natural habitats are no longer in peril and every child has access to high quality environmental education.



MESSAGE FROM THE DIRECTOR

2023 was an exciting year for Fundación Para La Tierra. Our internship programme is stronger than ever, welcoming students from all over the world. We started new projects, both scientific and community-based and made new partnerships nationally and internationally. Our programmes were recognised through international award and grant programmes and staff members flew the flag of Paraguayan conservation at international courses and conferences.

Our purchase of the property next door to Centro IDEAL opens a whole new chapter for PLT and as we enter our 14 year this little Paraguayan NGO will continue to grow and fight for nature conservation and environmental education in the forgotten heart of South America.

Dr. Rebecca Smith

EXECUTIVE DIRECTOR



MESSAGE FROM THE PRESIDENT

After the challenges of COVID, Para La Tierra has emerged stronger and is growing faster than ever before. With exciting new partnerships and projects in the works, our existing programmes going from strength to strength and a talented and enthusiastic team to implement them the future looks brighter and brighter.

I am proud of our support of the indigenous communities in San Rafael, impressed by the level of the scientific research being carried out and excited by the possibilities of the new property purchased next door. It is an honour to call myself the President of the Board of Fundación Para La Tierra.

Paul Smith

PRESIDENT OF THE BOARD OF DIRECTORS



IMPACT & SUCCESSES

18 peer-reviewed publications

ARTICLES

ACTIVITY BUDGETS OF BLACK-&-GOLD HOWLER MONKEYS LIVING IN URBAN AND NATURAL HABITATS IN SOUTHWEST PARAGUAY

Victoria Overbeck
Patricia Gonzalez
Wing Man Lau
Erica DeJardins
Marco Alessi
Jake William
John Kane
Melissa Henderson
Rachel Blood
Rebecca L. Smith

Abstract

Pilar, Neembucú, suroeste de Paraguay) difieren de los caraya que viven en el entorno natural circundante entorno del Complejo de Humedales de Neembucú. Anotamos 404,32 h de observación durante 73 días - 360,07 h de observación en el hábitat urbano durante 67 días y 44,25 h de observación en el hábitat natural durante 6 días. Al comparar los presupuestos de actividad entre los tipos de hábitat, no hubo una diferencia en el tiempo asignado a ninguna de las cuatro categorías de comportamiento, lo que podría insinuar que los caraya se están adaptando bien al crecimiento de la urbanización. Entre todas las categorías de edad-sexo y hábitats, a descansar fue la actividad más prevalente (67,51%), seguida de alimentarse (13,05%), translocar (12,74%), socializar (6,17%) y otras (0,53%). En general, los machos adultos pasaron significativamente más tiempo descansando (media = 71,14%) y menos tiempo viajando (media = 8,86%) en comparación con los machos inmaduros (media = 46,10%, $P = 0,038$ para descansar; media = 17,83%, $P = 0,026$).



18 interns and 12 volunteers



17 in-person course students



13,000 saplings planted

700+ children educated



IMPACT & SUCCESSES

2 grant wins & shortlisted
for the Whitley Award



11 public
presentations &
community events

3500+ camera trap
nights in three
habitats



Schools meals provided
for 74 Mbya Guaraní
children

18 Mbya Guaraní families
benefitting from shade-grown
yerba mate plantations



SCIENTIFIC RESEARCH

Intern Research Projects

| Research Discipline | Number of Interns |
|---------------------|-------------------|
| Primateology | 7 |
| Herpetology | 3 |
| Ornithology | 2 |
| Botany | 1 |
| Parasitology | 2 (combined) |
| Communications | 1 (combined) |
| Museum Sciences | 3 |
| Entomology | 1 |
| Mammalogy | 1 |



SCIENTIFIC RESEARCH

Atlantic Forest Conservation Project

The Hooded Capuchin behavioural study continues in Nueva Gambach, San Rafael (Tekoha Guasu). This programme is now 11 years old and the longest running primate behavioural study in Paraguay. This year we focused on spatial use of the available forest. Two peer-reviewed publications were released and four presentations and posters delivered at international events. The programme was shortlisted for the renowned Whitley Award for Conservation and supported by The Rufford Foundation.



Supported by The Rufford Foundation, our long-term monitoring of the medium to large mammal fauna of San Rafael continues. In 2023 we obtained 3,111 camera trap nights in the Atlantic Forest. We have now recorded 18 different species including jaguarondi, coatis, the Paraguayan hairy dwarf porcupine, tamandua, margays, oncillas, agoutis and pacas to name a few! Unfortunately we also had a camera trap stolen by an illegal hunter and recorded more domestic dogs in the forest than in previous years.

SCIENTIFIC RESEARCH

Parasitology Project

2023 saw the initiation of Para La Tierra's first long-term parasitology research project led by research supervisor Matthew Owen. This project has cross over with the Urban Howler Project with Matthew collecting faecal samples from 76 individual monkeys in the city, Military base and Estancia Santa Ana in the Ñeembucú. The project also includes necropsying museum specimens and identifying their gastrointestinal parasites.



This project is completely new territory for Para La Tierra's research and has produced some very interesting results so far. Necropsies have included crab eating foxes, howler monkeys, a jagurondii, a Geoffreys cat, tiger heron, black tegu, crab-eating raccoon, nine banded armadillo, a pit viper and a false water cobra. Three genera of nematodes, two cestodes, two families of trematodes and one acanthocephala have been identified so far and seven species of ectoparasite.

SCIENTIFIC RESEARCH

Urban Howler Monkey Project

The Urban Howler Monkey Project has now been running for six years, welcoming over 40 students from around the world in that time. 12 interns are authors on nine publications with another four currently under review. Two long-term studies began in 2023, an investigation of the howler monkeys parasites and a study of social dynamics of howler monkeys in habitats with different levels of urbanisation led by research supervisor Mikel Redin Hurtado.



Mikel is monitoring nine groups of monkeys across three habitats and has collected over 500 hours of behavioural data since October. He has also developed a survey about the attitudes towards and knowledge of monkeys that people have in Pilar and an online version to gather data at a national scale.

He is currently piloting a project to examine the howler monkeys reactions to noise levels and different sounds in different environments.

SCIENTIFIC RESEARCH

Pilar Tuco Tuco Project

Our long-term study of the Pilar Tuco Tuco, a curious little subterranean rodent only found in sandy soils in Ñeembucú, finally took off in 2023. Jorge Ayala received funding from The Alongside Wildlife Foundation allowing the purchase of new tag scanners and an endoscope! The mark-recapture project of tuco tucos was expanded to a second burrow with the assistance of two Dutch undergraduate students.



We have trapped and microchipped 36 individual tuco tuco's to date. The capture of juveniles between October-December provides an insight into the reproduction of this little known species. The first publication from this project was released this year detailing preliminary data on burrow use by the tuco tuco. We interviewed 225 people about their attitudes towards, and knowledge of the species. The results showed a lack of understanding of the tuco tuco. Education initiatives about the tuco tuco with the eco-club and school visits were carried out throughout the year.

SCIENTIFIC RESEARCH

Colección Científica Para La Tierra

Para La Tierra's natural history collection is now entering its 14th year and is the second biggest collection in Paraguay. In 2023 we added 35 mammals (including our largest specimen to date, a maned wolf), 21 birds, 46 reptiles and amphibians, 221 insects and two new species of Hyalella amphipods.



In 2023 we launched our first taxidermy and taxonomy internship programme and three students participated. Under the supervision of our new curator Nicole Stepan, one student described a new species of crustacean from Pilar and the publication has just been accepted!

Our purchase of the property next door means that we are able to expand beyond the scientific reference collection and create a visitors museum with display specimens. This will bring the collection to a whole new audience and give the people of Pilar a chance to connect to Paraguay's natural heritage in a whole new way!

ENVIRONMENTAL EDUCATION

Voces de la Naturaleza



Para La Tierra's flagship education programme Voces de la Naturaleza (Voices of Nature) went from strength to strength in 2023. More than 50 children took part in our Pilar Saturday morning Eco-Club's and more than 60 children took part in our summer and winter holiday camps.

Programme co-founder and leader Jorge Ayala also visited several schools in Pilar throughout the year, delivering lessons focused on the Pilar tuco tuco as part of the Alongside Wildlife grant. Over 80 children took part in these lessons across four schools.



Special eco-club events were held for international awareness raising days such as World Wetlands day. Collaborating with the municipality we hosted open events for the community based on the Voces curriculum.



ENVIRONMENTAL EDUCATION

Atlantic Forest Education



Using the Voces de la Naturaleza methodology we visited 20 schools in the Alto Vera and Itapúa Poty districts of Itapúa, around San Rafael. We carried out visits of an hour every one or two months during the school year to these rural and indigenous Mbya Guaraní schools.

Through games, arts and crafts and friendly competitions, children learned about the Atlantic Forest and its wildlife, the importance of conservation of natural resources and the consequences of deforestation and contamination.



ENVIRONMENTAL EDUCATION

International Education



In July 2023 we hosted our 7th Earth Expedition for the University of Miami Ohio. 15 Master's student's joined us for 10 days to learn all about applied conservation in Paraguay. Time was split between Pilar and San Rafael learning about all aspect of Para La Tierra, our partnerships and our work.



In September 2023 we hosted our fourth Field Methods in Primatology course. Two students joined us for an intensive crash course in field primatology and in situ primate conservation across three habitats.



COMMUNITY ENGAGEMENT

Economically Beneficial Reforestation

A grant from The Rufford Foundation meant that we were finally able to begin our economically beneficial reforestation programme with our partners in Mberu Pirapo'i Mbya Guaraní community. In April and May we planted a total of 13,000 saplings - 50% the native cash crop Yerba Mate and 50% a mixture of 14 species of other Atlantic Forest trees.



This programme will provide the community a sustainable income source from the yerba (a very popular tea) while reforesting unused land, helping to restore the critically endangered Atlantic Forest. 18 families and the school currently have plots and our successful End-of-Year fundraiser raised enough to plant another 6ha with single-mother families starting in April 2024. The first round of saplings have shown a survival rate of around 75% after the first six months.

COMMUNITY ENGAGEMENT

Community Presentations and Events

Sharing our results is very important to us, and not only through publications and scientific congresses. In collaboration with the Rotaract and Rotary Club's of Pilar we carried out several presentations and radio interviews for the Pilar public with themes including museum science, the Pilar tuco tuco project and the how to collect primatological data.



We organised and participated in public events throughout the year, often in collaboration with other organisations and the municipality including events for Earth Hour, World Wetlands Day, World Rivers Day, the “Your Faculty with the Community”, organised by the National University of Pilar, World Otter Day, World Fish Migration Day, CNN’s Call to Earth Day amongst others. Hundreds of adults and children took part, strengthening community relations and conservation awareness in Pilar.



COMMUNITY ENGAGEMENT

Collaborations with Mberu Pirapo'i

We have worked closely with the indigenous community Mberu Pirapo'i since 2018. In addition to the economically-beneficial reforestation programme in 2023 we had several successful projects together.



Working with Paul Smith, Fauna Paraguay tour guide and president of PLT we trained three community members to give tours of the reforestation plots, bringing in income with the saplings mature.

We are working with the women of Mberu to create a small international market for their traditional crafts, where 100% of the profit (a price set by the women themselves) goes to the artisan.



We carried out a successful fundraiser to ensure that the school could afford to provide the 74 students with a hot meal a day (often the only meal the children in this impoverished community receive) after government funding ran out three months early.

INCOME AND EXPENDITURE 2023

Income

\$144,370.07

Expenditure

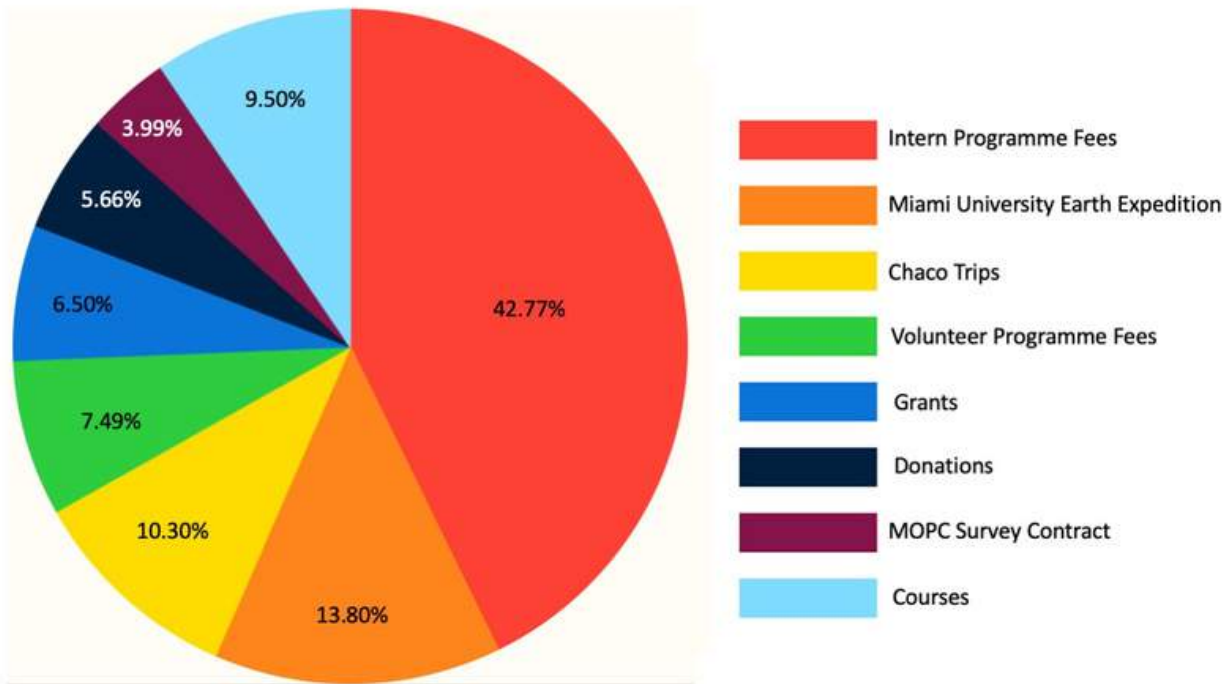
\$144,995.23

In 2023 we made our first big investment, purchasing the property next door to Centro IDEAL. This will allow us to expand, creating a visitors centre and display museum open to the general public. We remain above our minimum reserve policy and this investment will have a highly positive impact on Para La Tierra's long-term future.

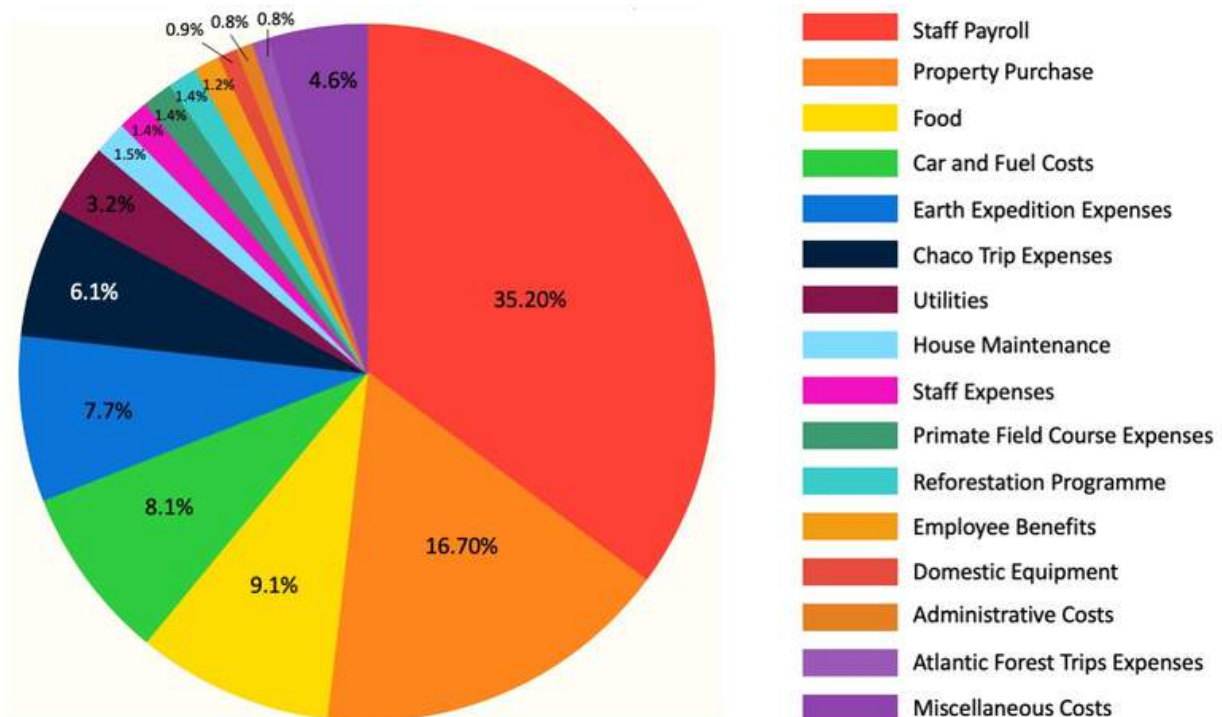


INCOME AND EXPEDITURE 2023

Income Sources



Expenditure



PARA LA TIERRA STRUCTURE

Board of Directors



Paul Smith
President



Karina Sarvary
PLT Founder



Joe Sarvary



Adam Betuel



Sergio Lahaye

Para La Tierra Staff



Dr. Rebecca Smith
Executive Director



Jorge Ayala
Education Director



Nicole Stepan
Museum Curator



Olivia Zickgraf
Communications Director



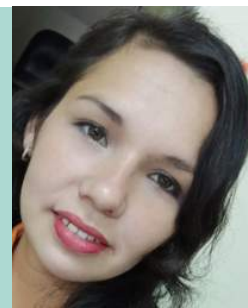
Matthew Owen
Research Supervisor



Mikel Redin Hurtado
Research Supervisor



Rocio Moreno
Cocinera



Delia Duarte
Cocinera

THANK YOU!

2023 was a fantastic year for Fundación Para La Tierra and we couldn't have done it without our loyal supporters.

Thank you! ¡Gracias! Aguyje!



SPECIAL THANK YOU TO EVERYONE WHO DONATED TO OUR FUNDRAISING CAMPAIGNS THROUGHOUT THE YEAR.





Para La Tierra is dedicated to the conservation of fragile habitats in Paraguay through scientific research, community engagement, and environmental education.



For more information about Para La Tierra, please visit our website:

www.paralatierra.org

And don't forget to follow us on social media:

