

Para La Tierra Annual Report 2018/2019

EXECUTIVE SUMMARY

This report marks three years since the announcement of administration change at Laguna Blanca, and the second full year spent with all programs running from PLT's new headquarters in Pilar, with a second remote station at Nueva Gambach working with PRO COSARA. Following last year's readjustment to the new sites, this year has seen a lot of progress in terms of scientific projects, now that we are more familiar with the surroundings. Our new team, settled in Pilar as opposed to translocated from Laguna Blanca, has found better ways to collaborate than any previous team at PLT.

The first year-round inventories of dragonflies and butterflies are complete and in the write-up phase, with others lagging by only a season or two to complete a full dataset, including mammal camera trapping at Santa Ana, and fish inventory. The Eco-Leadership for Sustainable Development program has seen several graduating classes this year. The education project has gone from strength to strength, training more new EcoLeaders and expanding clubs across the country. Despite a rocky start to the year with PRO COSARA, the primate project continues, collecting data for Becca's now half-way-done thesis, and training volunteers and interns in data collection techniques. Staff attended several workshops and held training events in Asuncion and at Nueva Gambach. The bar has proved its worth in terms of revenue generating potential, although we are still evaluating the hostel plan. "Pintando Pilar" has started strong with four murals already complete. During the last twelve months PLT officially signed convenios with two of our most important partners; PRO COSARA and the Peace Corps.

1. LOGISTICS

a. Location

EcoHostel IDEAL, was not the lucrative, easy-to-manage venture we hoped it might be, and we have taken very few bookings over the last twelve months. In January and February the hostel took lots of bookings from Peace Corps Volunteers attending Hawaiiana and other events in Pilar. However, in March 2019 we took the decision to scale back the business model, and focus on trying to encourage prospective hostel goers to undertake volunteerships, while focusing on increased advertising of the internships and field courses to cover the financial shortfall.

In October 2018 Centro IDEAL was visited by Yolanda Davis, daughter of Don Julio Contreras, who took more of her family's personal things from the house. She was very pleased with progress in general and thought her father would be proud of the work PLT is doing.

In October 2018 and April 2019 we rehabilitated “Bar Home”, which opens every Saturday night to the local community and people living at Centro IDEAL. The popularity of the bar seems to fluctuate seasonally, but evaluations show it has been worth opening every week for the additional revenue.

Over the last twelve months we’ve worked to create the best living and most functional environment possible, through a series of repair, maintenance, and reallocation of space use works. Most notably, in February 2019 this included expanding the museum space to incorporate a third room called “The Norman Scott Centre for Herpetology”, which currently houses the herp and fish collections. In October 2018 the office space was renovated, painted and reorganised, with increased security measures installed to store cash and PLT important documents.

Bridget held a training day at Centro IDEAL for new volunteers in October 2018, showing them a day in the life of a Peace Corps Volunteer.

b. Staff

In September 2018 we welcomed ex-intern Brogan Pett to the team to take on a new dedicated roll of Museum Curator. He spent one month learning from Leigh McMahon before she left in October 2018. Also in October, our team was joined by Michelle VanCompernelle, Research Supervisor. She spent two months learning from Jeremy before he finally left in December. In January 2019, Volunteer Coordinator Patrizia Ugolini left, cutting her contract short, but was immediately replaced by Constantinos Charlambous, while Jack McBride signed a second contract beginning in March 2019, changing his job title to Intern and Volunteer Coordinator. Unfortunately due to illness, Constantinos was forced to leave early, and was replaced in early June by Yvonne Kemp. Yvonne will leave in December 2019 to be replaced by Sophie Collier, while Jack McBride will sign a third contract beginning in October. His new position will be a promotion to “Director of Volunteer and Intern Programming”. Michelle announced her resignation in July, with a leaving date to be determined.

Cook cleaner Rocio was absent during the months of January, February and March on maternity leave. The team did a good job of pulling together to cover for her, since we were unable to find a suitable replacement. Cook/cleaner Noelia Caseres handed in her notice in May, finishing her contract in July, and was replaced by Blasdermira Rojas Espinola.

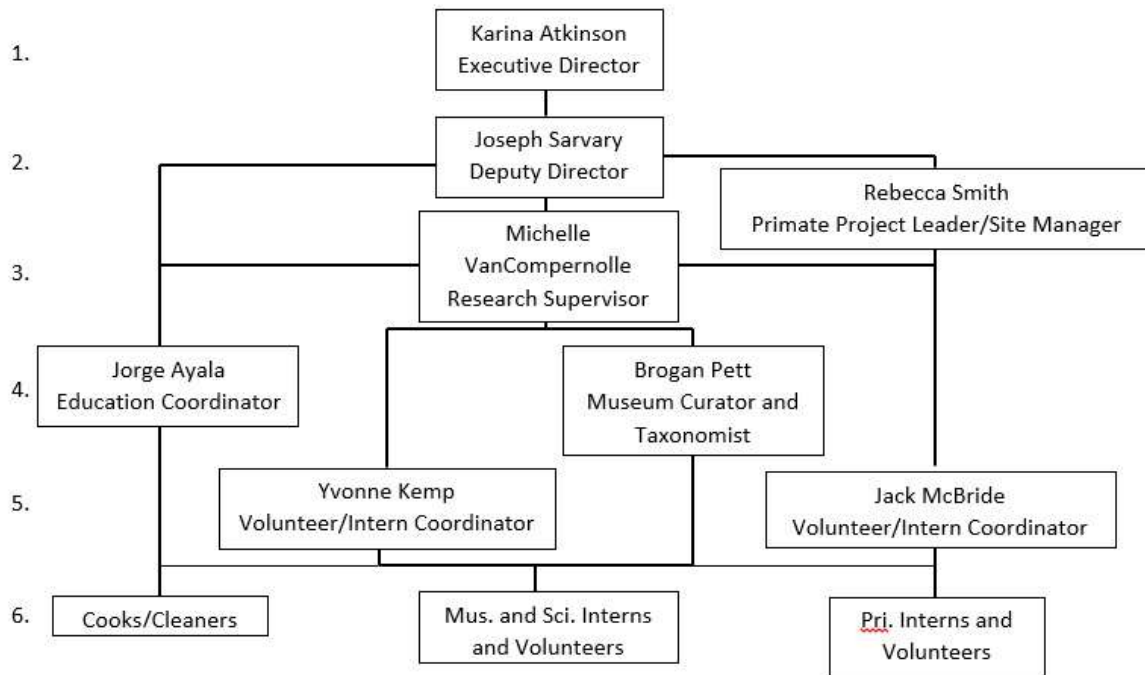
In December 2018 Michelle and Brogan received RNVS’s from the Ministry of the Environment and Sustainable Development. In January 2019 Michelle and Jack completed driving courses and obtained Paraguayan driving licences.

In April 2019 Joe began a Masters in Zoology at Miami University, spending 10 days on a field course in Baja in June.

Becca and Karina attended the National Geographic Society Explorers Festival/Rolux Awards Event in Washington DC in June. Becca is now nearing completion of her third year

as a PhD candidate, having completed drafts of her second and third chapters, as well as the introduction of her thesis. Her research combines primate ecology with conservation of the Atlantic Forest, drawing upon data from capuchin groups found at Laguna Blanca and PRO COSARA. Her data will lead to several publications.

The organigram in August 2019 is:



2. SCIENCE

a. *Publications:*

In the last twelve months, Para La Tierra affiliates have published twelve articles in peer-reviewed journals:

In the field of entomology:

Dickens, J., McMahon, L., Binnie, S. (2019) The Butterflies of a Cerrado-Atlantic Forest Ecotone at Laguna Blanca Reveal Underestimation of Paraguayan Butterfly Diversity and Need for Conservation. *Journal of Insect Conservation*.

Smith, P., Pett, B.L., Dickens, J.K. 2019. An aberrant form of *Protambulyx eurycles* (Herrich-Schäffer, 1854) (Lepidoptera: Sphingidae) from Paraguay. *European Entomologist*.

In the field of herpetology:

Pett, B.L.; Sarvary, J., Davis, H.P., Smith, P., Atkinson, K. 2019. Records of morphological abnormalities of anuran limbs from Paraguay. *Cuadernos Herpetologia*. 33(2)

In the field of mammalogy:

Smith RL, Smith P. (2019) Wild observation of infanticide and cannibalism by Azara's Agouti (*Dasyptocta azarae*) (Mammalia: Dasyproctidae) in Paraguay. *Ethology*. 1–5.

Owen, R., Smith, P. (2019) Mammals of the Mbaracayú Forest Natural Reserve, Canindeyú Department, Represented in Scientific Collections. *Revista de la Sociedad Científica del Paraguay* June 2019 volume 24(1)

Owen, R. D., Sánchez, H., Atkinson, K., McMahon, L., Jonsson, C. B. (2019) New and noteworthy records of rodents (Mammalia, Rodentia, Cricetidae and Echimyidae) from Paraguay. *Check List* 14 (5) 721–730.

Smith, P., Rios, S. D. (2018) Distribution and status of Paraguayan Xenarthra. *Edentata* 19 1–29

Culot, L. et. al. (2018) A dataset of communities and occurrences of primates in the Atlantic forests of South America. Ecological Society of America website.

In the field of ornithology:

Smith, P., Johnson, K.P. (2019) Dew-bathing in the Atlantic Forest endemic Robust Woodpecker *Campephilus robustus* (Lichtenstein, 1823) (Aves: Picidae). *Turkish Journal of Zoology* 43: 400-402

Fast, M., Rios, S.D., Clay, R.P., Smith, P. (2019) *Sporophila nigricollis* (aves, thraupidae) in Paraguay: photographic documentation and comments on its status in the country. *Boletín del Museo Nacional de Historia Natural del Paraguay* 23(1) 14-17

Smith, P., Ríos, S.D. (2019) Re-thinking wing-flashing in Mimidae, with new reports from Paraguay, *Ethology Ecology & Evolution*, DOI: 10.1080/03949370.2019.1575911

Smith, P., Morris, P. (2018) Crypsis in two species of tinamou (Tinamiformes: Tinamidae): roosting Solitary Tinamou [*Tinamus solitarius* (Vieillot, 1819)] probably mimic owls. *Boletín do Museo Paraense Emílio Goeldi. Ciências Naturais* 13 (3) 467-470

b. Projects:

Several projects carried out at Laguna Blanca are in the write-up phase, including:

- Predation preference for microteiid lizards in open and closed habitats
- Use of burrows by herp species in the Cerrado
- Dragonfly inventory
- Fish inventory – new species for science to be named after Anthony Hopkins

Several projects carried out in the Wetlands of Ñeembucú Complex, and from the Coleccion Cientifica PLT are in the final data collection/write-up phase, including:

- Odonata Inventory: Charismatic Indicators of ecosystem health in the Ñeembucú Wetland Complex
- The Hellmayrs Pipit
- Fish Diversity of the Ñeembucú Wetland Complex
- Snail-kite Foraging Behavior
- Reptiles of Ñeembucú
- Conservation Index
- Ñeembucú Amphibians
- Eburini in Paraguay: New species description, new country and distribution records
- Rena Behaviour
- Amphibian Deformities 2 (Collection evaluation)
- Gecko Diet
- Fish microplastics
- Tongue eating isopod
- Cerambycidae de Ñeembucú
- Scarabaeidae of Paraguay
- Hydrodynastes diet
- Carabidae of Paraguay
- Tapeworms in Howler monkeys
- Attitudes towards urban howler monkeys
- Dietary Diversity of Howlers in Different Environments
- Risk Awareness of Urban Howler
- Social Network Analysis as a tool for studying relationships of non-female bonded primates
- The diet of hooded capuchins differ in pristine and degraded Atlantic Forest
- Activity budgets of urban howler monkeys - effect of group size and home range size
- *Protambulyx eurycles lagunablancae*
- Saturnids of Paraguay
- Cassidinae of Paraguay
- Pentatomidae of Paraguay
- First Cordyceps records in Paraguay
- Evidence of Crab eating in Paraguayan Howler Monkeys

While others are under review including:

- IBIS Birds
- Rococo Toad PIM tests
- What determines behavioural responses of the South American coati *Nasua nasua* (Carnivora: Procyonidae) to primates? With an emphasis on capuchins in Paraguay (Primates: Cebidae)
- Description of the nest and eggs of the Brown Leaf Lizard (*Stenocercus caducus*: Cope 1892) and an observation of “nest theft” in Paraguay.

- Paradox Frog Diet

c) Other Staff and Intern Successes

In 2019 Becca completed several short courses offered by National Geographic, including social media, sciencetelling, and video making.

In October 2018 Joe presented his education project theory at the NAAEE conference in Spokane.

In April/May 2019 Constantinos organized and catalogued the entire library collection at Centro IDEAL.

In June 2019 Becca presented her research at the National Geographic Society Explorers Festival in Washington DC.

One of Becca's interns, John Kane, was accepted to present his work at PLT at the American Society of Primatologists meeting. John's research paper was accepted for publication in the American Primate Society Journal.

One of Jeremy/Michelle's interns, Madeleine Hiscock was awarded PLT's first ever "Intern Development Award".

Joe's intern, Lia, has produced two promotional videos for PLT capturing spectacular footage of PLT projects, as well as Atlantic Forest and Ñeembucú habitats.

Brogan won a travel award to work with spiders at a museum in Belgium.

3. EDUCATION

a) Earth Expedition

From July 19th to 28th 2019, 15 students and instructors from Miami University's Project Dragonfly program visited Pilar, PRO COSARA, and San Cosme y Damian. The main costs came from food and transport. The course included service projects which resulted in professional assistance for PLT logistically and in physical projects, including new bird paintings, 800 specimens pinned in the museum, a reorganization of the Voces curriculum, and Becca registered on Skype a Scientist. Dates for 2020 are already set at July 25th to August 4th, with an optional Chaco trip to follow.

Two of last year's students have facilitated the donation of education equipment and a cheque (Jillian Budz), and lab equipment (Lisa Scanlon) to PLT.

b) Eco-Leadership

In June 2019 Joe, Jorge, Karina and Bridget held a book launch for the Voices of Nature curriculum in Asuncion, where Joe gave a presentation of the curriculum. It was

attended by around 25 formal and informal education professionals from Asuncion and resulted in many new contacts for the team. Following this event, the book is currently under consideration at the Ministry of Education for inclusion in the national curriculum.

The Eco-Leadership program has benefited from nearly two years of support from Peace Corps Volunteer, Bridget Tam. In September 2018 Peace Corps volunteers and Pilar Sustentable organised a “Costa a Costa” event, which the Eco-Club children participated in. In January 2019, the two Pilar Eco-Club groups came together to host a summer camp for children during the school holidays. The club was attended by 15 children and held twice a week at the military base.

In September 2018 Joe, Jorge and Bridget participated in the annual Access Camp near Asuncion for students learning English. They won the award for best presentation.

In November 2018 28 Peace Corps Environmental Volunteers were given “Voces de la Naturaleza Starter Kits” in order to start Eco-Clubs in their own communities. Bridget and Jorge presented the project at an open fair, then Joe provided a training workshop on hosting Eco-Clubs in May 2019. Numbers of Eco-Clubs in Paraguay went from twelve to 33 between December 2018 and August 2019, reaching around 600 children per week. Joe offered a grant of \$150 from the Mary Robinson Fund to carry out community action labs, but unfortunately only received one application.

The children involved in the second year of Eco-Club “Voces de la Naturaleza” at Centro IDEAL graduated in November 2018. The third year began at the end of February 2019 and has seen consistent attendance of around 12 children per week since, with a short break in April. June 2018 marked the first complete year of the second Eco-Club in Pilar, run by Pilar Sustentable members from a local high school. They also host around 10-15 children each week.

In April the education team held three successful Earth Day activities across the country.

4. MUSEUM

In addition to creating a third room for housing wet specimens, in February 2019 the museum space was also fumigated, repainted, reorganised, relabelled, and cleaned, adding a second air conditioning unit to maintain the specimens.

The IBIS collection has been claimed by both the Contreras Family and the University of Pilar. This collection remains physically separate from the PLT collection for the time being, but has been treated in the same way as the CCPLT collection in terms of preservation. IBIS specimens are in the process of being allocated CZPLT numbers.

Collecting permits applied for in April 2018 were emitted in October 2018. New applications were submitted in August 2019.

Several professional scientists visited the CCPLT over the last year, including Norman Scott and Bolívar Garcete.

5. FIELD SITES

a. *Ñeembucú*

Estancia Santa Ana and the Military Base remain the main field sites in the area. Although many others have been visited, no formal agreements have been made with their land owners. Interns are also making use of public beaches and swamps on the side of the main roads.

Don Barrios, owner of Santa Ana was invited to an asado during the EE at which PLT acknowledged his contribution to the science program. His nephew came in his stead. In August 2019 he signed a letter of permission, allowing PLT to collect on his property.

The city of Pilar is home to several troops of howler monkeys, and is the main site for ongoing howler monkey studies. Several other studies have been executed around the city, involving urban herpetofauna, lepidoptera, and coleoptera.

b. *PRO COSARA*

In January 2019 our relationship with PRO COSARA hit a bump when they requested we sign a convenio in which the terms were unacceptable. After negotiation through the Executive Team and Board of PRO COSARA we signed an acceptable convenio with them in May. Based on the convenio, we then developed and signed two “Collaborative Projects”. Becca has spent all available weeks at Nueva Gambach between Monday and Friday, normally taking Jack and two or three volunteers to receive training and work with her.

Becca has reported increasing success in habituating the capuchins and has two feeding tables, and a capture cage in place. She and Jorge spent two weeks in July trying to collar a monkey, but has yet to dart one.

c. *Chaco*

PLT ran an additional Chaco trip at the end of the EE, taking seven people on a four day tour of the Laguna Capitan, Fortin Toledo, Filadelfia and Loma Plata.

Herr Patrick of Laguna Capitan has signed permission for PLT to collect on his property, pending approval from MADES.

6. GRANTS

a. *Erik Hoskings*

The grant to fund publication of the Field Guide to the Birds of Laguna Blanca is still pending drawings from the artist. He has now completed a substantial amount of the total drawing and after some discussion the trustees have decided to continue to wait for him to complete the task, however, we haven't heard from him in months.

b. International Primate Society

The Forest Guard Training Course for Paraguayan Forest Guards funded by the Lawrence Jacobsen Education Development Grant for \$1,325 took place in December 2018, run by Becca, Joe, Jorge and Jack. Forty-two forest guards from six organizations across the country attended the course. Becca has since received a handful of reports of monkeys in several departments.

c. Mary Robinson Climate Justice Award

Joe spent a significant part of the £5,000 fund on books and starter kits for eco-clubs, as well as printing and promotion of the Voces of Nature curriculum. The funding period has finished, but there is a small amount of money left over which will be used for more kits and further promotion.

d. PRONII

Joe and Becca remain Candidatos de Investigadores, while Karina and Paul remain level I and II respectively.

e. National Geographic

Despite some road bumps, Becca's primate project is progressing well. An extension has been approved and a report will be completed by December 2019. All schools involved in the program have been visited at least once by Becca over the last twelve months, with some having received two or three visits. Each school will be visited three times throughout the project. Becca completed three visits to each of the schools in Tapyta in November 2018.

f. Muhammed Ali Foundation

In March Joe was named a finalist for a Mohamed Ali Humanitarian Award. Unfortunately he was not awarded the final prize.

g. Charles Southwick

In April Jorge was awarded the Charles Southwick Conservation Education Commitment Award of \$500 for a project of his choice, and \$1,500 for him personally.

h. Pintando Pilar

Following a presentation by Paul and Karina in September 2018 and an application by Pilar Sustentable, the Municipality awarded the Pintando Pilar project a small grant to cover paint and some artist's costs to paint murals on several walls in Pilar. This initial grant was boosted by a fundraiser in the bar, various donations from local hardware stores, and

members of the Rotary Club who also provided walls for painting. By August 2019 four murals were completed.

Several additional proposals were written, where grants were applied for and rejected during the last twelve months, including from Van Tienhoven (Ñeembucú), Prince Bernard Fund for Nature (Ñeembucú), American School of Asuncion (field course), American Primatology Society (Primates), and Lush Charity Pot (Ñeembucú, still under consideration).

7. VOLUNTEER AND INTERN PROGRAM

The Volunteer and Internship program has seen a few ups and downs over the last twelve months, but has seen the highest numbers of interns and volunteers for years over the winter. With new advertising platforms identified, we hope to see this trend continue into the next twelve months.

In October 2018 Becca hosted the first Primatology Field Methods course for three people. She received excellent feedback on the course content and outcomes. Several courses were advertised for 2019 with no success. Three over the Spring break period in March were possibly advertised too late, while the Primate course programmed for June had no subscribers. The October 2019 iteration of the course has also been cancelled due to lack of interest. A January 2020 course has been advertised.

8. LAND PURCHASE

Since leaving Laguna Blanca we've heard reports of intensive hunting, logging and several large fires on the property. The agreement with Guyra Paraguay is still in effect, but with no progress made in the last 12 months.