



Giant Armadillo and Anteater Project

September 2018

THE TEAM WITH 'TEX'

Dear Supporters of the Giant Armadillo Conservation Program,

I hope this email finds you all very well. Since my last update at the end of July, we ran two expeditions for giant armadillos in the Pantanal, three giant anteater capture expeditions in the Cerrado, three trips to the Cerrado for the camera trapping work and we continue are weekly surveys of the highways. In the history of the project, we have never had as much fieldwork happening simultaneously.



Pictures from the camera traps

I have lots of great news for this update: (1) We hired an educator for our projects; (2) We re-captured Robert a male giant armadillo we had not seen in five years (3) We finished the giant anteater captures for 2018: 25 animals were collared in two study areas in the Cerrado. As always we have also had a few setbacks and challenges, but overall these past three months have been fantastic.

You might remember that earlier this year, in April, we held a 5 day workshop (sponsored by the Chester Zoo and the Houston Zoo) to create a Strategic Plan for Education and Communication of our NGO. It helped us to plan and prioritize the actions that we needed for the conservation of giant armadillos and giant anteaters in the various biomes we work in. It also made us realize that we needed someone with experience who could help guide us and deliver these actions. I am thrilled to announce that thanks to the sponsorship of the Reid Park Zoo we were able to hire a full time educator. I received over 60 applications. Katia Rancura Director of education of the Sao Paulo Zoo and Camila Martins Director of education of the Parque das Aves worked with me to analyze CVs, and conduct interviews. It was a long process and we received many fantastic applications. We are very happy with the candidate we selected. Please join me to welcome Andréia Figueiredo to our team.



Dr. Andréia Nasser Figueiredo has both a strong academic and practical background with a masters degree and Ph.D. as well as 10 years of experience working on environmental education projects. She is also one of the founders of a small environmental education company called Fubá (www.fubaea.com.br) with three other women. Her colleagues also have Ph.Ds.' and extensive experience in creating actions and educational projects focused on biodiversity conservation. We are hiring Andreia through their company, which means her colleagues will participate and advise on all actions taken and materials produced. Andreia will be our main contact and on the ground person, but her colleagues will offer invaluable help. Andreia is now participating in our projects as well as meeting our teams and collaborators. She already participated in the September expedition and visited a rural school three hours away from our study site. She is now in the UK to participate in an encounter for conservation educators at the Chester Zoo. Once she has a better understanding of our work, the communities and issues she (and Fubá) will help us to implement our Strategic plan.

We really hope that through Andreia we can also further strengthen our relationship with zoos and institutions that discuss international conservation in their education and outreach activities. Towards the end of the year, we will be preparing a survey so we can make sure we can create relevant and useful materials for your programs. I will need your help! Please contact me if you are interested in helping to shape the survey. I look forward to reporting on many exciting advances in our education and outreach work in the future.

Many field expeditions took place since the end of July. In the Pantanal we ran two expeditions. In August the team consisted of myself, Gabriel Massocato (Biologist), Debora Yogui (veterinarian) and volunteer Thomas Giauque (my nephew from the UK!!). For the first time in 2018, water had now receded enough that we had full access to the whole study area. We were therefore able to find almost all our giant armadillos. Unfortunately, despite many days of searching, we were not able to locate Emanuel a male giant armadillo. Two animals were recaptured, Richard who was fitted with a GPS and Amanda. Although Amanda had been fitted a GPS in the previous expedition it was not emitting a signal. Thanks to a

camera trap we saw that the GPS unit was still on her so we recaptured her to retrieve the unit. These are new GPS units that collect data every five minutes. Although the signal did not work the GPS did collect data which is fantastic and will help us answer many new questions. As for Richard we are thrilled to have recaptured him as he had eluded us on the previous expedition.

In August we also placed camera traps throughout Isabelle's home range to try to find her as well as her son Tim who should now be independent. We are back to searching for a needle in a haystack! Isabelle's home range is one of my favorite areas as it is one the places I know the most intimately. It was actually while searching for places to put our camera trap that we stumbled upon one of the most striking scenes I have seen in the past few years: An ocelot predating a six-banded armadillo. www.youtube.com/watch?v=-BrY7z0QvWg

In August, we were also thrilled to welcome Ben Harrow from the Royal Zoological Society of Scotland- RZSS. RZSS sponsors my salary and it was a real pleasure welcoming someone from the society to show and discuss our work. His visit was a lot of fun and very productive. I want to use this opportunity to extend an invitation to all of you to come spend some time with us in the field.



The September expedition included Gabriel, Debora and veterinarian volunteer Amanda Carolina as well as American veterinarian visitor Emily Dunay. The highlight of that expedition was finding Robert! Robert is a male giant armadillo we captured five years ago!! I added a picture from five years ago to this update.



Roberts release in 2013



Scales on Robert's tail

Robert, named after Rob Yordi, was one of the first males we managed to monitor. His capture was crazy! He was captured by hand in the middle of the night by Gabriel, Danilo and myself after we returned from capturing Isabelle. He lives about 20 km from the ranch and we caught him during one of his male walk-about. We use the term walk-about to describe when males travel far away from their home range to inspect female burrows. Robert had appeared a few times in camera traps throughout the years, but it had been long time since we had any evidence of him.

Robert was caught in Tex's territory by chance. Gabriel was training Amanda in the use of telemetry. As they walked, guided by the signal, they stumbled upon a fresh burrow. Gabriel believed that it was Tex inside the burrow and made Amanda check carefully that she was not mistaken. Since Mafalda had disappeared they tried her signal...Emanuel??? Nope! Nothing. After trying all the animals they could think of, they rushed back to the ranch to get the trap. It was already late and dark when they installed the trap. I really wish I had been there when Robert was caught later that night. His tail has very distinctive marks on it, which means Gabriel recognized him instantaneously. What a crazy moment. Indescribable.

Finding Robert again is like suddenly finding an old friend, you had no news from for years. I cannot wait to follow Robert and see if his home range has changed; which females he now visits and so much more!

During this expedition the team welcomed two groups of tourists that came specifically to see the giant armadillo. Luckily, both groups experienced a capture as Renee was also recaptured and fitted with a GPS.



Gabriel with Renee

It is wonderful to think that of all the groups that came to Baia das Pedras to see giant armadillos along the years, only one did not get to see one. Once again, Emanuel was not found despite an intensive search but the other animals are fine. It also took six days to locate Mafalda a female giant armadillo who seems to be expanding her home range. Her GPS tag also failed and I am working with Telonics on making some adjustments. More cameras were placed to try to find Isabelle and Tim.

Speaking of cameras we got a very rare image which I am excited to share with you: <https://youtu.be/1NcnNFRZmgw> . For the past two years we have been maintaining a video camera trap near a tiny pond in a clump of trees. This is where we got a wonderful video of a giant anteater taking a bath, which went viral. Finally, we got an image of a giant armadillo drinking water! We believe that giant armadillos do not need to drink. In Isabelle's territory, for example, there is only one place with water and we have never seen her go near it even at the height of the dry season. This makes sense as giant armadillos are found in very dry areas of the Cerrado and of course the Chaco biome where water is notoriously scarce. It was therefore wonderful capturing this intimate moment and seeing for the first time a giant armadillo drinking.

I am so happy to announce that we have finished the capture rounds for 2018 of giant anteaters. Since May we have been running back to back expeditions in two study sites in the Cerrado and we managed to collar a total of 25 giant anteaters and recover 19 collars from the animals captured last year at another site. We worked in 3 sites and captured and handled 44 giant anteaters! Congratulations to the Anteaters & Highways team and the volunteers that helped us make this possible. At the end of July, myself, Mario Alves (Anteaters & Highways Veterinarian) and volunteer Thomas Giauque collared 5 animals at the edge of the 267 highway. In August Mario, Danilo Kluyber (Head Vet) and volunteer veterinarian Wagner Diniz captured 5 animals on the 262 highway. Finally Mario and Debora recaptured the last animal on the MS040 highway with a collar. In July when we tried to recapture Phoenix she had a tiny newborn baby on her back.



Phoebe with her baby in July



The baby is kept safe whilst the collar is fitted to Phoebe

We catch the animals with a net and we preferred to wait for the baby to be larger and stronger so he did not risk any injury during the capture. Therefore, although we were worried the batteries would run out, we waited until early September to recapture Phoenix. We knew we could find her even without a collar as after a year of monitoring her we know her home range very well. Mom and baby are fine. Now we are back to fundraising for collars for 2019!! We have a completely new set of questions to explore and I am working on developing new collars for this purpose right now.

The Anteaters & Highways is of course a challenging project to run. The road monitoring is very depressing and all the animals we caught this year live less than 1 km from the highway. It is inevitable that some of the animals we collar will lose their lives. It was however a very strange twist of fate that the animal named Ben after Ben Harrow was killed crossing the highway during the exact two days that Ben was visiting the project. It is very sad that Ben instead of seeing through binoculars his anteater ended up performing his necropsy. The hope, however, is that this project will put an end or decrease such events.

We are making great progress and have reasons for hope. We have been very successful in mobilizing the communities living in the three study areas in the Cerrado. We have very active WhatsApp groups and the communities have really embraced our cause. Gabriel gave three talks in schools and several landowners are putting signs up with the project logo committing to protect giant anteaters and their habitat. Our veterinarian Debora has also been working very hard with a private road concession so that we can monitor the road and suggest mitigation strategies. This experimental partnership was signed this week. They will cover costs for the study and the idea is that they implement mitigation strategies recommended. I see this as a very positive development and depending on the results something to potentially expand.

In other general news we are proud to announce that two Masters Students have finished their thesis with us. (1) Pedro Busana who was examining the role of art in conservation (In March I had forwarded you some of his illustrations); (2) Giselen Dalazene who analyzed armadillo health samples. Speaking of health Danilo attended the 67th Annual International Wildlife Disease Association Conference where he presented his findings on zoonotic pathogens found in armadillos that are important to Human health. While in Florida he visited the Naples Zoo and Caribbean Gardens which sponsors his salary. Danilo and Tim Tetzlaff used this opportunity to update the giant armadillo and our NGO ICAS's websites. <https://www.icasconservation.org.br/> and <https://www.giantarmadillo.org.br/> . Thank you so much to the

Naples Zoo for funding and maintaining our websites! We still need to do a bit of work on them, and could never do this without the help of Tim. Finally, we also got several mainstream articles on southern naked tailed armadillos published to share the findings of the scientific paper. Here is one popular article in English: <https://news.mongabay.com/2018/09/the-secret-life-of-the-southern-naked-tailed-armadillo/>

As always these updates are a bit longer than I intend. I want to thank you all so much for supporting our project and our work. We could not achieve these results without you. So THANK YOU SO MUCH. I am off to the field in the Pantanal on October 2. Wish us luck!

All the best from Brazil,

Arnaud and the Giant armadillo and Giant anteaters teams.

Photos from the projects



Anteater catching



collared anteater



Common Potoo



Capbaray



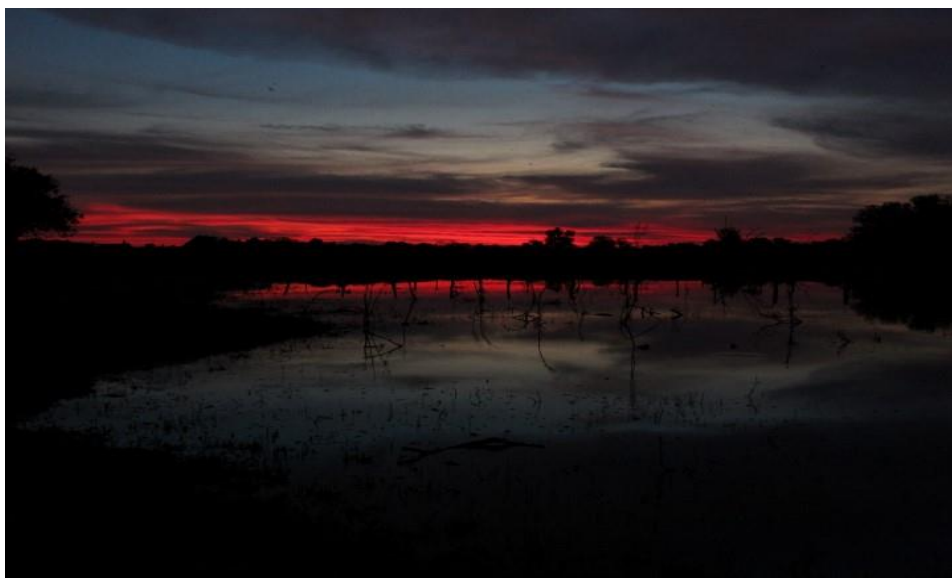
Ocelot predating armadillo



Blue and yellow Macaw



Giant Armadillo claw



Pantanal sunset