



Giant Armadillo and Anteater Project

May 2019

THE TEAM WITH 'TEX'

Dear Supporters of the Giant Armadillo Conservation Program,

I am very late in sending a project update. Too much has been going on and sending an update got pushed to the bottom of my list too often. I am terribly sorry for this. However we have a lot of exciting news and new developments to share.

In January, I set out to visit our field site in the Atlantic forest in the North East of Brazil. You may remember that we started a project last year in two reserves of the Espirito Santo State. The aim of the work is to search for the last giant armadillos of the Atlantic Forest. How many are left? Can they be saved? We are working in partnership with the Harpy Eagle Project and a local university in Vitoria. Last year, we trained a team of students and I now have a Masters student conducting research. The preliminary results of the work are very alarming, as only one individual giant armadillo has been identified. Several burrows are monitored, but they are some years old. Although more field work will continue during the year, results currently point to the fact that the giant armadillo population in that area is now functionally extinct. The main cause is most certainly illegal hunting which is rampant in the reserves despite the best efforts of the forest guards. Even maintaining camera traps in the area is a challenge, as many get broken or stolen by hunters. I do not believe we will continue working in this area at the end of this study.

During this trip I also went to explore the State Park of Rio Doce located in the State of Minas Gerais.



According to the literature, current studies and conversations I have been having with other researchers, this is the only other area in the Atlantic forest where a potential population of giant armadillos may still be present. I am really happy to report that this exploratory expedition was very productive. During two hikes we found old giant armadillo excavations. I also spoke to the director of the Park, forest guards and other researchers and all reported that giant armadillos continue to be present. I therefore believe that as we wrap up the work in Espirito Santo we will move our focus to this Park where hopefully a population of giant armadillos still persists. More on this initiative next year.

Work in the Pantanal in the past few months has been very limited due to the floods. One quick trip to the Pantanal happened in January to retrieve some GPS units. On the 14th of May a team will be back in the field for two weeks. During this out of the field period, Gabriel Massocato worked hard to prepare a lot of education and communication materials to work with the communities in the Pantanal. Many of the actions listed in our Education and communication Action plan should be implemented this year as well as the improvement of our scientific tourism program.

The road survey work in the Anteaters & Highways project is in its final year. After 27 months, we have reached a total of 71,500km of survey effort. We recorded 8,411 road-kills. These include 1,363 six-banded armadillos, 622 nine-banded armadillos, 558 giant anteaters, 453 Southern tamanduas, 55 Southern naked-tailed armadillos and 6 giant armadillos. Tissue and blood samples were collected from 1058 road killed animals and 100 necropsies were performed, 58 of which were of giant anteaters. We also lost another one of our collared giant anteaters to road kill. This time the GPS unit was really smashed and we could not retrieve the data. We have started to remove some radio collars from individuals. In April, 30 camera traps were also placed near and far from the BR 267 study area. Every month we will be checking and re-positioning these 30 cameras in the study area.

The GACP also participated these past months in organizing two capacity-training opportunities:

(1) At the end of March along with CPSG-Brasil, Parque das Aves and the Lowland Tapir Conservation Initiative we organized a Vortex course that brought together 22 conservationists with long-term species data to learn about Population Viability Modeling. A huge thanks to Kathy Traylor Holzer and Phil Miller! We managed to create a very useful population viability models for Anteaters and use our data to test the impact of road kill and other threats. There is still a lot of work to do but results are promising. We also put together a preliminary model for giant armadillos. While there is enough data to create a model for giant anteaters, we still need a few more years of research to obtain more robust data for giant armadillos. There is still so much we need to learn. This really highlighted the need for our long term research in the Pantanal.

(2) In April, our NGO gave a weeklong course to masters students at the local federal university. Between project staff, our PhD students and collaborators we were able to give a full multi-disciplinary practical course on Species Conservation. Topics ranged from Education & Communication, Human Wildlife Conflict and Conservation Medicine to practical advice on running a project, data analysis and organizing as well as practice setting up camera traps or using telemetry. It was also a great team building exercise and provided us with the rare opportunity to have the whole team (armadillos & anteaters) in one place.

Our educator Andreia has been making a lot of progress. She established many new partnerships and created many new opportunities for us to spread our biodiversity conservation message. We are particularly excited to be expanding our work with science teachers in public schools and Science fairs where the project will be given space to create an exhibition. On other news: two new masters' students are starting at the local university in Campo Grande to study the diet of giant anteaters and giant armadillos.

At the end of May, we will be starting a new partnership and a new project with the Tamandu ASAS Project located in the State of Minas Gerais. This is our new initiative for this year. The aim of this project is to rehabilitate giant anteaters whose mothers were killed most often due to road kill. The Tamandu ASAS Project has been nursing and rehabilitating the anteaters and they asked us to help them with the release and monitoring of the giant anteaters when they go back to the wild. Our educational materials, in particular 2000 copies of the book on giant anteaters created through a partnership with the Greenville zoo and Reid Park Zoo were printed and distributed in the areas where the animals will be released. It made sense for the Anteaters & Highways Project to get involved, as the problem of orphan anteaters is an important animal welfare issue related to roadkill. We hope that we can bring back lessons learned from this experience back to Mato Grosso do Sul. This is a long term partnership and we are very excited to see how it unfolds. I asked the project coordinator to share the bio of the three animals we will be releasing. Here they are:

Dumbo arrived in the Tamandu ASAS Project on the 29th of May 2018 weighing only 1,240kg. Local residents found him alone vocalizing very loudly in the urban area of Uberlandia (near the City's water treatment plant). His first night alone without his mother was very difficult and due to stress he experienced severe hair loss which was only reverted through a lot

of patience, many bottles of milk and TLC. Dumbo is a real scaredy cat! He is easily frightened and not at all aggressive. It took him a very long time to leave his blankets to explore his habitat. The smallest noise would make him run for cover. With time, Dumbo adapted well to life under human care and his weaning was easy with minimal weight loss. He is actually a real glutton! Sometimes he even lays down while eating to be closer to his food. Dumbo is the cleanest of the project. He loves to take baths in his pool at any time of the day. In fact the first time that he came into his new rehabilitation enclosure at the Retiro Águas Vivas ranch in March 2019 the first thing he did was go into one of the pools.



Dumbo on arrival



Dumbo yawning

Chica Linda arrived to the Tamandu ASAS Project at 21:00 on the 9th of June 2018 after she was found alive hugging the dead body of her mother on a road in the Xapetuba region. She was dehydrated, full of ticks and weighed 1,245Kg. Chica took a long time to get used to using the bottle and required a lot of hard work from her caretakers.



She is now well adapted and independent and maybe the less human imprinted giant anteater of the project. She is curious and loves exploring. Since her early days she would leave her blankets to dig into the ground of her habitat. She was raised in the same rehabilitation enclosure as Dumbo in the Retiro Águas Vivas Ranch. The project maintained a separation in the enclosure so that each animal could have their own space and pools.

Capitu was brought at the veterinary hospital of the federal university of Uberlandia in July 2017 where he was raised and weaned. He was supposed to be released without going through a rehabilitation center in December 2018. However, he was too tame and used to people to be simply released and for this reason the environmental police asked the Tamandu ASAS to help. The Tamandu ASAS project took him to their rehabilitation enclosure in Tupaciguara. He now weighs 25kg and after one week learned to sleep in the middle of the vegetation. He has a big appetite and has now stopped seeking human interaction.



Giant anteater's rehabilitation facility



Giant anteaters in the rehabilitation facility



Orphan giant anteaters

At the end of May we will be fitting the animals with collars and releasing them. We are conducting a brief observational study to observe the animals' reaction to the collars. We will be training volunteers and members of the Tamandu ASAS Project on telemetry and monitoring methods. I look forward to keeping you updated about this project throughout the year.

We will be finishing the Zoo survey at the end of the month in which 91 individuals from over 20 zoos have participated. We are very grateful for this help. We will analyze the results and do our best to incorporate the information and requests so that both the GACP and Anteaters & Highways can provide our supporters with better materials.

As always I want to end this update by thanking you all so much for your support. As you can see the program and projects are always expanding and new partnerships, research questions and conservation actions always improving. We could never do any of this without your long term commitment and support. Thank you so much!

Arnaud and the teams



Anteaters & Hiways team



Inspecting an underpass that allows a giant armadillo to cross the highway