

Notes from the Pantanal Giant Armadillo Project, April 2014

As I write this note, it is raining! This year the wet season has been **VERY wet**, two expeditions cancelled, and one delayed! In January, the team set out for 12 days and had to return earlier because of the constant down pour. They only managed to return with the help of a tractor that accompanied the truck through the worst parts of the flood plains. In February and March, the expeditions were cancelled, as we could not reach the field site. Ten days ago Gabriel and our first biologist trainee of the year went to the field, but I had to hire a truck to drive them there as my old truck would not withstand these conditions. They will use the quad bike to work on a portion of the ranch.

However, **news from the field is excellent**. In January, the team managed to recapture one of our males (Houdini who is the expert at NOT being caught) as well as another male nine banded armadillo. Most importantly, they found and monitored all the animals we currently have tagged which include three Southern naked tailed armadillos, a nine banded armadillo, two other giant armadillos and check on the three giant anteaters. They also got some camera shots of the famous baby giant armadillo we have been monitoring since end of June 2013: Alex. He was at the time of the January pictures six and a half months old and becoming independent. He forages alone but still seems to try to meet up with mom at the end of the night. However, he is now spending many nights on his own. We have not place any devices on Alex as we believed he was too young but mostly because we did not want to interfere. It might be time to say **good-bye to Alex**, although I do hope we catch him later this year! If you look at the literature, it says giant armadillos are independent at 6 weeks old. Alex started to become independent after he was 6 months old. This just shows that giant armadillo reproduction is much slower than initially thought. Thanks to Alex, we have learned so much about giant armadillo reproduction.

In January, conditions in the field were tough due to the water and rain. They had to use a small barge to cross the flood plain in order to only cross the car once. The truck certainly took a beating and ran a very big bill at the garage upon its return! Gabriel is now back in the field and concentrating on monitoring our animals using the quad bike. Unfortunately, he does not have access to our whole study area and we will have to wait until the end of the month to get news from some of our animals. I hope that by then we will be able to cross the floodplain.

However, it has been a very busy time for all us. There are many exciting activities happening outside the field as well. We are searching for a new study area! The work in the Pantanal will of course continue, but it time we **expand our work to a neighboring and threated biome: The Cerrado**.

Cerrado is the Portuguese word for central Brazil's plateau of woodlands, savannas, grasslands, and gallery and dry forests. The Cerrado is the second largest of Brazil's major biomes, after Amazonia. It is one of the world's biodiversity hotspots. It has the richest flora among the world's savannas (>7000 species) and high levels of endemism. Species richness of birds, fishes, reptiles, amphibians, and insects is equally high. However in the last 35 years, more than 50% of its approximately 2 million km² has been transformed into pasture and agricultural lands planted in cash crops. Deforestation rates have been higher in the Cerrado than in the Amazon rainforest, and conservation efforts have been very modest: only 2.2% of its area is under legal protection. Numerous animal and plant species are threatened with extinction. Cerrado agriculture is lucrative, and agricultural expansion is expected to continue. Have a look at the picture I took of an image of an aerial view of the Cerrado from the area we are exploring. Look at how destroyed and fragmented the landscape is. This year we will search for a potential new study area with both conserved areas and areas with anthropogenic activity to try to understand the potential impacts of anthropogenic landscapes changes on giant armadillo populations. We hope to identify an area and start a pilot study with camera traps to see if we can establish a new project in the future (2015-2016). I have visited several areas and made many contacts and presentations ranging from private ranch owners to big multinational eucalyptus plantations. It will probably take several more months before we can start putting camera traps out.

Preparing for the **armadillo zoo campaign** which we will be launching in May has also kept us very busy. I can not thank enough all the artists and talented people volunteering their time to make this happen. Several Brazilian artists have created wonderful materials and illustrations. The Emerging Wildlife Conservation Leaders (EWCL) group has put together lots of great materials. A special thank you to one of Disney's Animal Kingdom keepers Laura Gruber who has been doing an outstanding job. The SZB, (Brazilian Zoo and Aquarium Association) especially its president Yara Barros has been working tirelessly to make this happen. We still have a lot to do, but hopefully at the end of May we can send you the link to all the materials that will be on a new website. We need all the zoos to use these materials and forward them to your education departments. Hopefully this is an initiative we can continue in the years to come.

I also have some really exciting news to share. Last week, I attended a workshop in Campo Grande that was selecting **priority indicator species for the selection of potential protected areas** in the state. Five species from different groups such as plants, invertebrates, bats, mammals, birds etc... were to be selected by a survey and groups of specialists. I am very pleased to say that the **giant armadillo was selected as one of five indicator mammal species!** Yes of course it took a bit of lobbying but our field work results and media coverage helped a lot. Furthermore the work we plan on doing in the Cerrado will be very important data for this initiative as we will be surveying various areas. Five years ago few people even knew about giant armadillos and now if all goes well they will be used as an indicator species to create protected areas. There is still a lot of work to be done for this initiative to take place but it is

rewarding to see our field work and communication efforts are transforming themselves into public policies.

Our state wide **road kill study ended at the end of March**. This initiative was a partnership between the lowland Tapir project and the giant armadillo project. Over a thousand medium to large sized mammals were recorded during surveys that took place every 2 weeks on three highways. Over a 150 giant anteaters were registered as well as hundreds of armadillos. Almost every species of mammals recorded in the state was found... including some rare animals I have never seen such pampas cats or hoary foxes. It is very sad to see the amount of animals getting killed on our state roads and this is the tip of the iceberg. We are now working with a group to analyze this data to make sure that results are widely publicized and made available and result in effective changes and mitigation strategies.

Other news is that our Veterinarian Danilo Klyuber took 3 months off to take some of the courses for his master's degree. Although it was hard for him to be back in a classroom, he did great! He will be back in the field at the end of the month. This year we plan to double the number of conservationists we offer training to and in May a trainee biologist and veterinarian will be joining us.

I know that due to the world cup, travel to Brazil will be complicated this year, but we have the dates for all the expeditions until December and we are more than happy to have you visit.

Once again thank you so much for supporting the project. 2014 promises to be a very exciting year.

All the best,

Arnaud and the giant armadillo team.



