









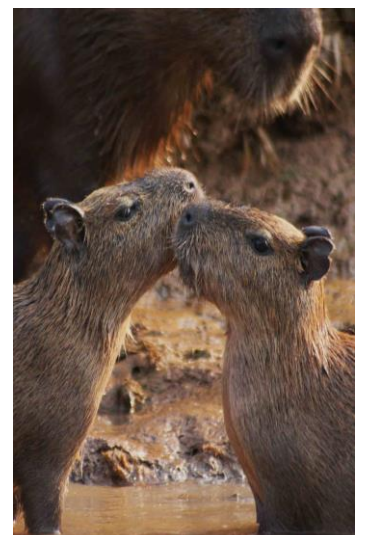
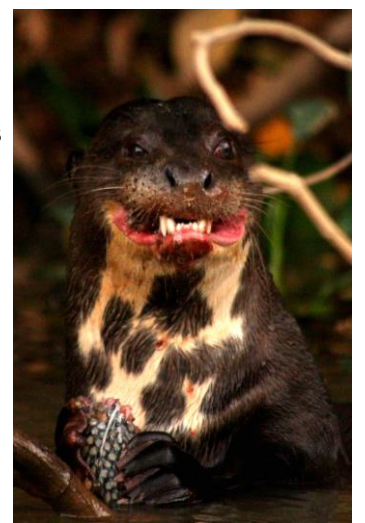
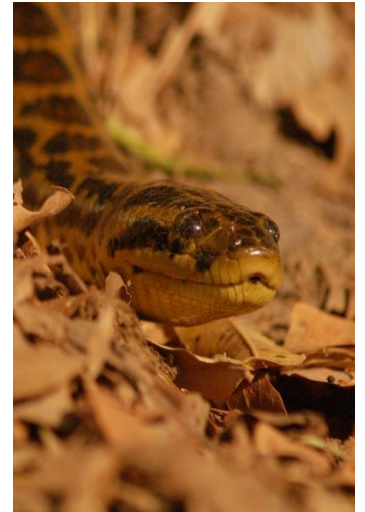


Pantanal Exploration

Destination: Pantanal, Brazil **Duration:** 16 Days **Dates:** 27th Sept – 12th Oct

-  Having a total of 17 jaguar sightings and at least 9 different jaguars on the trip
-  Having a close up sighting of the rare and elusive 2.3m yellow anaconda
-  Having an hour with a family of giant otters including sleepy adults and restless kits
-  Sharing Embiara Lodge with a nesting pair of hyacinth macaws & last years' chick
-  Having a fantastic sighting of a tapir feeding in an open meadow in daylight
-  Seeing 190+ species of birds including 5 species of macaws & Coscoroba swans
-  Spotting 2 species of peccary & armadillo as well as 7 giant anteaters
-  A brief view of a common grey four-eyed opossum and a total of nearly 30 mammals
-  Enjoying sightings of mating jaguars with the male chasing the female around
-  Enjoying a spectacular private flight over the southern Pantanal



Tour Leader / Guides

Martin Royle (Royle Safaris Tour Leader)
 Ailton (Guide / Naturalist & Panthera Researcher)
 Fisher do Santos (Jaguar Camp Guide)
 Zein (Jaguar Camp Boat man)
 Stefan (Embiara Manager and Guide)
 Matthew, Alessandra & Adalto (Embiara Guides)
 Robson & Boussa (Transpantiero & Cuiaba Driver)
 Brebo (Pilot & Co-Pilot of Air Taxi)

Participants

Mr. Roy Cyster
 Mrs. Lee Hodgson
 Mrs. Kate Royle

Overview

Day 1:	Cuiaba
Days 2-7:	N. Pantanal
Day 8:	Cuiaba
Days 9-14:	Embiara
Day 15:	Cuiaba
Day 16:	Home



Day by Day Breakdown

Overview

For a long time a forest enigma, a shadowy presence rarely seen and seldom understood the jaguar remained one of the last big cat species to be encountered with any regularity. But as research continues in Brazil's huge wetland area (known as the Pantanal) this big cat is beginning to reveal itself to the world. Despite this, few people are aware of the frequency that jaguars are seen here and as a result by joining this tour you could witness wonderful interactions between different jaguars, jaguars and giant otters or even a hunt and kill in the presence of just a dozen or so people and a few hundred yacre caiman. This big cat specialist trip aimed to bring you closer to a species which is so elusive elsewhere in its vast range through South and Central America; and there is no better place to do this than in the species' last stronghold; the northern Pantanal. With the expert help of a local guide (Ailton Lara) and his team (currently based on the Jaguar do Pantanal houseboat as their camp is refurbished) we were in excellent hands as they guided us through the land of the jaguar. Whilst here in the north of the Pantanal we were immersed into a world dominated by fast flowing waterways that intersect a burgeoning cattle ranching industry that suppresses all other agriculture in the area. This is the number one beef producing area in Brazil, which in turn is the world's number one beef exporting nation. It doesn't take a rocket scientist to figure out that in an area full of valuable cattle that the world's highest density of jaguars hangs on a knife edge. Only by continued eco-tourism and invaluable research will this remain the jaguars' last stronghold. And as the Pantanal receives more and more international acclaim and visitors the wealth of life here will flourish (with sustainable and controlled eco-tourism; both of these philosophies will be pushed to the limits with the upcoming FIFA World Cup and Olympics) and show itself to a wider audience. From playful giant otters and the more elusive neotropical otters and stunning hyacinth macaws or toco toucans, to rare cats such as the ocelot, jaguarondi, oncilla and puma as well as thousands of capybara and millions of caiman, all the species will benefit. But alongside the jaguars there is one group of animals that brightens up the Pantanal from sunrise to twilight and they are the birds. It is possible to rack up a huge number of species and seeing thousands of individuals every day is a given. Kingfishers, terns, toucans, hyacinth macaws, storks, jacamars, parrots, egrets, darters, herons, donacobias, kisadees and dozens more groups of birds. All of these species help to make this the jewel in South America's wildlife watching crown (and I am taking into account the mighty Amazon) and a place that should be at the top of every wildlife enthusiasts wish lists.

In addition to the tracking down jaguars in the north of the Pantanal we also took a flight south to the capital of Mato Grosso do Sul, Campo Grande and from there headed into the heart of the cattle ranches to the very special private ranch / lodge of Embiara; to experience a very different side of the Pantanal. Here there are fewer large rivers and far less 'swamp' habitat but instead a more dry savanna (cerrado) and scrub forest which is home to a whole different array of wildlife; including tapir, giant anteaters, southern tamandua, pampas deer, red-and-green macaws, golden-collared macaws, burrowing owls and boa constrictors to name a few. By staying at Embiara we experienced a great variety of wildlife that the Pantanal has to offer, seeing many species of birds and mammals that are very difficult or impossible to see in the north from the boats. Whilst here we will be also able to experience the Pantanal in a variety of ways; via 4x4 open jeeps, horseback, boat or on foot. All in the expert hands of the local guides and ranch staff, this is a little piece of wildlife heaven and must be the closest thing to a private national park in the world. So which ever mode of transport used to explore the fields, forests, rivers and lakes of Embiara, this beautiful boutique lodge will not disappoint.

All in all this is a true exploration of many of the Pantanal's different habitats and as you can see by reading further we had some excellent sightings and spotted a great range of species inhabiting this fantastic wildlife hotspot.



Day 1 **Cuiaba**

Arrival

In the late afternoon Roy and Lee were met at the airport in Cuiaba by their zoologist guide (Martin Royle) and our driver Robson and transferred into the centre of this developing city (construction is taking over the city in preparation for the 2014 FIFA World Cup). Once we had navigated the traffic, road works and plentiful diversions we arrived hotel and checked in. Earlier today Kate (Martin's wife) had arrived and so after freshening up we all met in the hotel reception and went for dinner in a nearby restaurant. Dinner was taken in the local institution Choppao, located in the heart of downtown Cuiaba the ice cold beers and humongous pizzas are massive draw



cards for the residents here. After dinner we walked the short walk back to the hotel and prepared for the trip down the Transpantaneira to Porto Jofre tomorrow.

Day 2 **Transpantaneira**

Travel & Wildlife Watching

The Transpantaneira highway was originally planned to span the 350km between Pocone in the north and Corumba in the south and construction started in 1976. However after reaching Porto Jofre (148km from Pocone) the work was abandoned and it was too difficult and not cost effective to carry on; mostly due to the fact that when the road was proposed and construction started the whole of the Pantanal was contained in one state, Mato Grosso. However during the building of the road the state was split into two and the southern state, Mato Grosso do Sul decided that their budget would not cover the construction of their half of the road so that it now stops at Porto Jofre on the banks of the Rio Cuiaba and the border of the two states. As a consequence of this the road has never been completed and remains unpaved and with no thoroughfare to the other side the heavy traffic bypasses the Pantanal. This has resulted in the highway becoming one of the best wildlife watching roads anywhere in the world. In order to get to 'Jaguar Central' in the heart of the Pantanal we spent most of the day travelling the road and stopped many times to take in the plentiful bird, mammal and reptile life along the way. The plethora of life here is comparable to anywhere outside of Eastern Africa. We clocked up close to 100 species of birds on our first day including peach-fronted parakeets, black-headed water-tyrant fork-tailed flycatchers, plumbeous ibis, savanna hawks, lesser kiskadees, hyacinth macaw, greater rhea and toco toucans to name a few. Another highlight was trying to count the throngs of Yacre caiman which congregated in every pool, stream, pond, lake, brook and puddle! This is a fruitless task as there are literally millions throughout the Pantanal. Estimates of their population range from 2 or 3 million to 10 to 35 million, either way there is no shortage of the jaguars favourite food (especially during the wet season). But undoubtedly the stars of the Transpantaneira are the birds; there are thousands of passerine birds and waterfowl here as well as a few species of truly monstrous birds. One being the official bird of the Pantanal the mighty jabiru stork and another being the largest bird in the Americas the flightless greater rhea. Whilst the rheas nest on the ground in large communal crèches which the male incubates and then cares for the young the jabirus mate for life and nest high in old manduvi palms. Their huge, mountainous nests are clearly visible and we saw one very close to the road which had an adult and two chicks inside. These nests are so large that they are also used by another bird species; this is the monk parakeet. A very noisy and communal nester that uses the underside of the jabirus nest to build little tunnels and chambers for themselves. This symbiotic relationship works as the parakeets provide an efficient guard duty and defend the nest as well as the jabiru eggs/chicks whilst the monk parakeets spend less energy on the construction of their nest. Today our wildlife viewing actually started just before we officially reached the Transpantaneira where a large fig tree close to a ranger station was in fruit and a group of black-tailed marmosets were climbing around inside the tangle of branches. As well as the marmosets (the smallest primate species in the Pantanal) there were many species of commonly seen birds such as yellow-billed cardinals, bay-winged cowbirds and plain-breasted doves also feeding around the ranger station. We spent some time watching the marmosets as they jumped and climbed around the tree and some spread themselves out on the branches to cool down. We then went underneath the official welcoming sign to the Pantanal and the wonderful bird watching began in earnest. Regular stops for the many caiman and wetland birds including snail kites, southern lapwings, cattle egrets, Brazilian teals, large-billed terns, rufescent tiger herons, great egrets, cocoa herons, limpkins and green ibis made up the majority of the first couple of hours. The sheer abundance of birds and caiman being hard to take in; highlights early on included a pair of southern screamers with their year old chicks. The chicks being around 90% the size of the adults but with much paler colouration all over their plumage. We also spotted a young caiman making a daring dash across the road, being only around 20cm long it is well within the size range of many predatory animals and it was certainly taking a risk moving out in the open during the daytime. Usually caiman wait until after dark to move from water body to water body. A little further on, close to the entrance to Araras Lodge we spotted a breeding pair of jabiru storks in a roadside pond. The male and female were making very rhythmic and purposeful head bobs to each other, most likely to reinforce bonds between them as they look to enter the breeding season together. Then shortly before reaching our lunch stop we spotted a male rhea very close to the road as well as an adult female marsh deer eating just off the road, there is a small section of road around 1km either side of the Mato Grosso Hotel where marsh deer are seen nearly every time we come down the road. Presumably due to their preferred food plants being found here and closer to the road than elsewhere along the Transpantaneira. For our lunch we visited the famous Mato Grosso Hotel which lies roughly half way down the Transpantaneira and on the banks of the Paraguay River. As well as having a hearty lunch there are some good bird feeders in the hotel grounds; these attract the usual cast of birds, including yellow-billed cardinals, bay-winged cowbirds, shiny cowbirds, greyish saltators, palm tanagers, silver-beaked tanagers, saffron finches and lesser kiskadees. But today we were also treated to some birds that whilst regular at these feeders, they tend to only arrive in the early mornings and most lunchtime visitors miss them. So we had great views of a chestnut-eared aracari feeding close to us. This brightly coloured smaller relative of the toco toucan is one of the most beautiful birds in the whole Pantana. Alongside the aracari we also saw purplish jays, chalk-browed mockingbird and red-crested cardinal. As we continued south we had more birding highlights including the vibrant vermilion flycatcher and stunning orange-backed troupial as well as a single hyacinth macaw flying parallel to the vehicle for a couple of hundred meters. We then arrived at an old and abandoned ranger station. We always stop



here as a great-horned owl nest is found from one of the huge mango trees that provide lots of shade around this little layby off the road. But we were also greeted by a couple of true Pantanal cowboys on horseback, they told Fisher of an anaconda around here. Well we didn't have to look too far as the 2.3m long anaconda was out in the open, very relaxed and slithering through the leaf litter without a care in the world. This was by far the best views Royle Safaris has had of a yellow anaconda, they are usually seen in dense bushes or vegetation or with just their nose and eyes above the water in an overgrown lake. But here we had a beautiful anaconda peacefully moving around in the open allowing for close up views and photographs. The anaconda eventually made its way to one of the derelict buildings and went inside, presumably to find some shade and cool down as the heat from the sun would have been dangerous for a reptile so far from water. Also around here we found the great-horned owl chick, also suffering from the heat the chick was low down on a branch (catching the occasional breeze) and panting hard to cool down. The chicks fluffy down feathers not being great to keep cool, however we did have fantastic views of the chick as they are usually high in the mangrove tree and hard to see properly. Further on we should have pasted some of the largest mixed roosting sites of various species including great egrets, smaller snowy egrets and wood storks as well as rufescent-tiger herons, cocoi herons, bare-faced ibis, ringed kingfishers and maguari storks. However some forest fires had blazed through this area since Royle Safaris' last tour here only 9 days ago and most of the vegetation was gone and the smouldering ashes had taken over the grasslands. With so much smoke in the air and very little vegetation left the wildlife was also largely absent. In the distance fires on either side of the road could be clearly seen and whilst fires are a naturally occurring part of the Pantanal ecosystem, these were most likely manmade fires and unlike other areas of the world where fires are carefully managed for the good of the ecosystem. Here most farmers and ranch staff do not use fire-breaks and other measures to make sure that fires do not get out of hand if the rains do not come. As a result we sped up and aimed to get to Porto Jofre as quickly as possible so that we could at least have a couple of hours on the water looking for jaguars before sunset. Once we reached Porto Jofre we had our first good sightings of hyacinth macaws as the resident pair around the Porto Jofre Hotel and airstrip were perched nearby. We then loaded up the boats and headed the couple of miles towards the house boat. We dropped the luggage off and then headed back out as we had already heard of a couple of jaguars being spotted upstream. We first tried the Black Bay River where one had been seen not too long ago, but we didn't find it. We did have good views of a capped heron before spotting a black vulture floating along the river on a dead and bloated caiman, the vulture feeding on its own raft. We then went up the larger Three Brothers River to where one of the jaguars was last seen. This report was of a jaguar who was resting and unlike the other one we found her where we were told she may be. This was an old female and she had found a small gap in the forest along the bank of the river overlooking a bend. We were the only boat here and managed to get into a good position despite the strong current, fallen tree in the river and bend in the river all meaning that Zein and Fisher really had to work hard to get the anchor and engine in the right positions so everyone had a good view through the window into the forest. As the sun began to set we headed back to the house boat after having further good views of capped herons and then on the way we were engulfed in a cloud of lesser and greater bulldog bats that come from the forests to drink and catch fish on the river as well as band-tailed nightjars and nacunda nighthawks who catch insects above the bats. Well it was a good start to the trip, with nearly 100 species of birds, a rare and elusive yellow anaconda sighting and our first jaguar in only 1.5 hours of trying; it was a very good welcome to the Pantanal. After dinner on the appropriately named Jaguar do Pantanal houseboat (or flotel) we all hit the hay as an early night seemed the best way to prepare for a day on the water in search of more jaguars and other wildlife tomorrow.

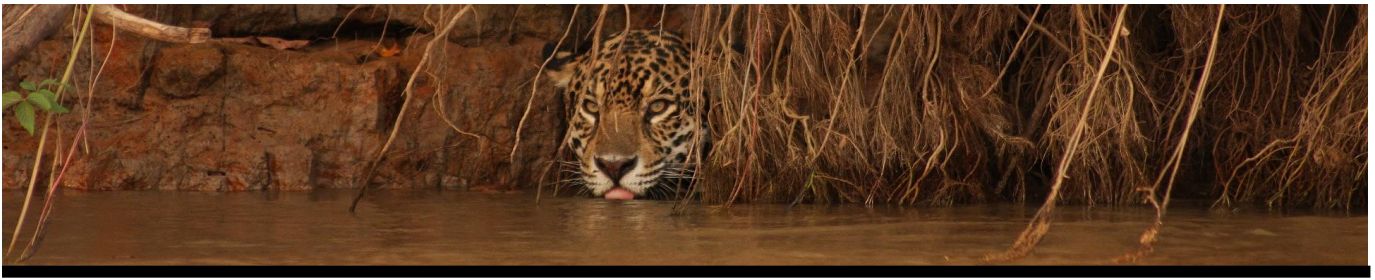
Day 3 North Pantanal

Wildlife Watching

Today was the first full day around the Rio Cuiaba and the world's number one hotspot for jaguar sightings. Our hopes were relatively high as Martin's last trip (2 weeks ago) had had 16 sightings of jaguars and this year more than ever were being seen. The day began with breakfast at 06:30am as the rain came down heavily, whilst not necessarily being great for sightings it would keep the fires down and get rid of the smoke and dust from the air, making it better all-around for the environment. We then departing on the Rio Cuiaba for 'Jaguar Central', at around 2km from our houseboat the Rio Cuiaba is joined by the Three Brothers and Black Bay Rivers. These rivers (along with the Piquiri River further downstream) are home to the greatest densities of jaguars in the world. First we headed for Black Bay River the river was quiet by mammal standards but we spotted a green-and-rufous kingfisher and watched as the very vocal yellow-rumped caciques built their woven nests hanging over the river from a large manduvi tree. As we left the Black Bay we spotted a sungrebe swimming close to the bank, we went for a closer look but couldn't find it again as it disappeared in the water hyacinth. The last bird sighting we had on the Black Bay this morning was a black-collared hawk being mobbed and chased across the river by a pair of very frantic lesser kiskadees. We then tried the Three Brother River and found a many of the commonly seen birds species usch as green kingfishers, neotropical cormorants, rufescent tiger herons, lesser & greater kisadees and capped herons alongside the multitude of yacre caiman everywhere you looked. The first mammal sighting we had today was of a male and female pair of capybara with their three young all swimming alongside the boat. We slowed down and went closer to the shore once they had reached the bank. We watched as the babies play fought with eachother. The male youngsters learning valuable skills for when they would have to fight for females and territory when they get sexually mature. We headed towards the island in the middle of the Three Brothers River where Martin was going to set his camera traps up. Along the way we found an adolescent male black howler monkey, its coat in the



process of changing from brown to jet black. Despite their name only the males are black and all babies are born brown (the same colour as the females) and when the males reach maturity they take on the black colouration. Fisher also took us to a commonly used daytime roost sight for long-nosed bats (sometimes called proboscis bats) and we found a couple as they hung upside down clinging to the face of a tree trunk. The colouration on their backs and heads perfectly blending in with the bark and lichens of the tree. We then came across a group of fishing giant otters and we followed them as they travelled quickly along the channel that skirts the north side of the island, we let them get ahead of us when Martin climbed ashore to set up the camera trap on a wide open bank that had several game trails coming from the fields beyond towards and along the river bank. As he was shore and bent over fitting the camera to the tree, the family of giant otters came back and started to react to him as if he was a jaguar. Their loud hissing and barking calls the ones they use when a large predator is around. Despite the giant otters being very used to the sight of boats and people in boats they are not very used to seeing people on the river banks and this reaction is that they perceived Martin as a threat. We all left the boat and came ashore to experience this intimidating behaviour from the giant otters. Eventually they must have realised we were not a threat or they got bored and all 6 adults left and carried on downstream. We followed them as they continued to fish around the boat and had great views of one as it caught a sailfin catfish and began to feed resting on a submerged log very close to us. At one point three of the adults were all feeding close to each other and the sounds of the crunching and cracking as they ate the fish was particularly loud and uncomfortable to here. The giant otter that was feeding closest to us attracted a green kingfisher that started to dive into the water around the feeding otter as it picked up scraps left by the otter. We then left the island and travelled up the Three Brothers river and came to a large jabiru nest with chicks resting in the heat of the day, the adult and chicks all vibrating their enlarged throats to cool down. The rain this morning meant that there were many green iguanas basking in the sun today and many were seen along the beaches and climbing the high banks. We came to a small beach with a nesting pair of black skimmers, however their very well camouflaged eggs remained elusive. We left as we began to get mobbed from the skimmers, their stress very evident so we left and carried on upstream. We then turned around to briefly try the Cuiaba and Black Bay Rivers before lunch back on the house-boat. Notable sightings before lunch included a great-black hawk feeding on an unidentified prey animal as well as good views of a green-and-rufous kingfisher (better than we had earlier). Then after dinner we heard of a couple of jaguars along the Cuiaba River, not very far from the boat. In fact we arrived at the mating pair just five minutes after leaving the boat. At first they were both hard to see (a large collared male with a large scar on the left side of his muzzle, which shows his entire canine and a beautifully patterned and scar free female) as they rested under and behind thick vegetation. Occasionally a tail would flick or a head move but they didn't seem to be in an energetic mood, that was until purring and growling broke the silence. As we watched and waited for the jaguars to get up we were entertained by a male and female pair of rufous-tailed jacamars as they acrobatically caught insects and killed them by beating them against the branch they were perched on. After around 50 minutes the male moved towards the female, growling was heard (most likely from the female as the male tried to initiate mating; as cats are induced ovulators they require multiple copulations in order to release an egg. This means that the males need to mate numerous times over a 2-3 days period). The female permitted the male to lie down next to her but only for 20 minutes when she rose and walked into the forest, the male quickly following. Whilst we couldn't see it, we heard mating occurring just behind the vegetation. Lots of aggressive growling was heard as well as snarling, then the noises moved slowly downstream, to a very narrow strip of land that separated this side of the Cuiaba River from another section upstream. Sooner or later this 2m wide section of land would collapse through and an oxbow lake would be formed here. Well we hoped that we could see better on the other side and so went upstream and around the bend in the river. Along the way Roy's hat blew off and it was only after got to the other side that we knew and after realising that the other side was better for the jaguars anyway we headed back to look for the hat. As soon as we arrived back to the spot we didn't find Roy's hat however we did see both the jaguars very close to the river, on the steep river banks. The female being smaller and more nimble she was able to get up and down the banks very easily and also found it easy to move between the dense tangle of branches and roots from fallen trees. It was very interesting to watch as the males tried his best to follow her but its extra weight and size made it very hard. As he chased her up and down the bank and through the branches and roots the we got great views of this intimate behaviour. The loud roaring, growling and snarling reverberating across the bank and river and when he did catch up with her the aggressive fighting that occurred was a great example of their strength and power. But the fighting wasn't serious, more of a way for the female to tell the male that she was interested and to wait. The male seemed to understand and gave her a little more space, she came down to the river and into the river. In part to cool down and also to drink, she then hid behind a thick tangle of roots, the male followed but kept his distance. The female was quite relaxed now and began to try and catch the annoying biting flies, snapping her jaws at the unseen pest must have looked very strange to anyone who didn't know she was after flies. After a few more minutes she climbed up the bank, quickly followed by the male and away into the forest. We waited a little while but they didn't come back out. We had watched these two jaguars exhibit some incredible behaviour for over 2.5 hours and now we left to try elsewhere along the Cuiaba River. We didn't see anything else of note, except for a small colony of yellow-billed terns mobbing a black skimmer and then an incredible sunset that turned the sky red. We then called it a day and headed back to the boat for dinner.



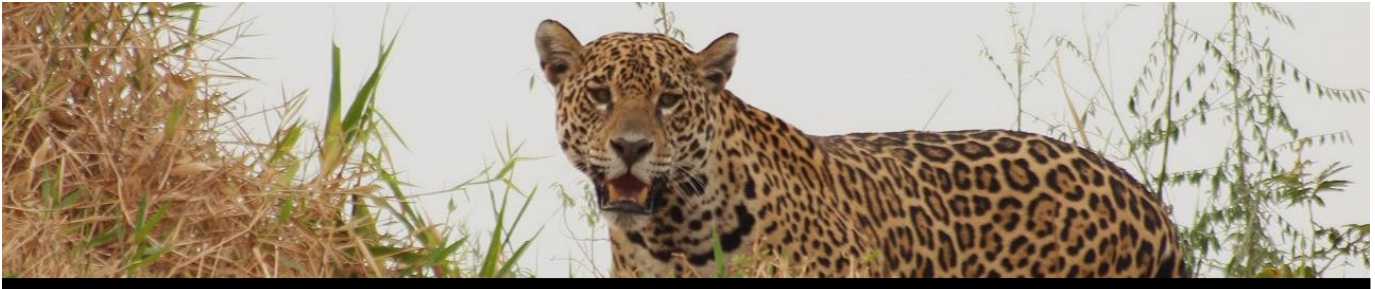
Day 4 North Pantanal

Wildlife Watching

This morning was overcast first thing, but it wasn't long before the sun have burnt through the cloud and off we went in search of more jaguars and wildlife. It wasn't long before we had great views of a blue-crowned trogon as well as great sightings of capybara feeding along the river bank. A little further along the Cuiaba River we came to a male black howler monkey feeding on flowers over the river. Possibly feeding on the flowers themselves or just drinking the sugar rich nectar, we couldn't tell from our position. The rest of the group was just about visible as they moved around in the trees behind the male. They are very sedentary monkeys as their diet is almost completely leaves they need to spend long periods of the day resting so that the bacteria in their guts can breakdown the cellulose; as a result they were probably just starting their day, having slept most of the early morning. Very close by we found a large roost of boat-billed herons. These nocturnal herons roost during the day underneath dense, overhanging vegetation and we spotted a couple as they fluttered around. When we got closer more were visible until they moved further into the trees. Also close to this roost was a crane hawk, this unusual grey hawk looks superficially similar to a male hen harrier however their long legs are used to grab animals from holes in tree trunks or crabs and birds from their nest holes along the banks of the river. This crane hawk was seen searching under the bark of a fallen tree, using its long and dextrous legs to peer under every piece of loose bark. As we headed back downstream the Cuiaba River towards Black Bay we saw a green kingfisher with a fish and then on the Black Bay River we saw a pair of black-collared hawks very well. We travelled the length of the Black Bay before once again trying the Three Brothers River and this morning we had some nice bird sightings including close black-capped donacobias, 2 nesting jabirus (one on the Three Brothers (3 chicks) and one of the Caxiri Canal (2 chicks)) and many more common species of birds. Mammal highlights here included three orphaned baby capybara, they have been seen in the same area for the last week or so and it is suspected that the adult(s) they were with has been killed by a jaguar. They were beyond the dependant age and could survive if they manage to avoid predators (which is easier said than done when there are so many jaguars around). Other than this it was very quiet for mammals this morning, until we heard that 2 jaguars had been seen downstream on the Three Brothers River. We found one of them sleeping under a tree and not very well visible. It was the same male that we found yesterday with the collar and the left top canine showing. We waited with him for a while but he was not very active, as the temperatures were increasing in the middle of the day he was not likely to move much for the next few hours, so we headed back to the boat for lunch. After lunch we then went back to the same spot and he had hardly moved and was still sleeping, it wasn't long before we then heard of another jaguar that was spotted on the Black Bay River. We left to find this jaguar and were successful as we spotted a female sleeping between a couple of trees in a very dark and shady place. We waited with this female as the air began to fill with darkening clouds and distant thunder. The female didn't move and we then heard that the male had moved back on the Three Brothers River; we then headed back towards the sleeping male with thunder, lightning and winds all increasing in frequency and intensity. Travelling upstream on the Three Brothers River there were many turkey and black vultures soaring and riding the strong winds above the rivers and riverside forest. When we were on the way to the sleeping male we heard of another jaguar that had been spotted beyond the island (quite far away), however when we arrived at where the sleeping male was and he was not there anymore we decided to try for this other jaguar. Along the way we came across a jaguar standing proud on the raised bank of the river. We had this beautiful female all to ourselves for around 20 minutes as she walked along the river bank, looking down into the water in search of any caiman or capybara that are resting in the water hyacinth close to the riverbank. We gently followed her as she moved downstream, stopping every now and again to sniff the air, scan the bank she was on and the opposite side. She also occasionally stopped and lay down right on the river bank, giving us incredible views of this powerful predator. As it turned out this was the jaguar that we were on our way to see further upstream, but she moved downstream and was lost by the 3-4 boats that were watching her upstream. It was around 10 minutes before a couple of boats came to join us. As we followed the female she went behind some bushes on the bend of the river, at this point we lost her but we stayed around because a group of capybara had crossed the river to the side that she was on! Obviously they didn't see her and (because she didn't come out and attempt a hunt) she hadn't see them either; we then heard a capybara bark in alarm and the cawing of purplish jays coming from further downstream (beyond these capybara), it could only be from this female that had walked inland to cut the corner of the river and had completely missed these capybara. So we headed further downstream and found her resting under a tree. As the sun was getting lower in the sky we decided to head back downstream and try the Black Bay River and the female that was there earlier, before calling it a day. Along the way we found a small band of giant otters fishing and watched as to caught and ate catfish, when they finished they noisily and playful swam off in search of the rest of



the group. Whilst we were stationary and watching the giant otters there was a planalto hermit hummingbird flittering around the flowers overhanging the river and the feeding otters. As well as the otters feeding there were lesser kiskadees trying to catch scraps as the otter fed messily. Once the otters had left we carried on towards the houseboat and quickly came across a young (3 year old) female jaguar resting on the bank. The light was fading fast now but this young female was perfectly positioned lying on a ledge on the sandbank just resting and waiting for the sun to finally set and she can go hunting. This was a female that Martin had seen last year with her brother when they were both still cubs (albeit large cubs that were just about ready to disperse). It was great to see this female doing well and now carving out her own territory (although very close to her mothers). We stayed here until it was pretty much dark and then we headed back to the boat with the usual cloud of bats, nightjars and nighthawks.



Day 5 North Pantanal

Wildlife Watching

This morning it was much chillier than previous days (around 15-20°C) and the sky was overcast again, first off we tried for jaguars along the Black Bay River, we travelled the length of this narrow and shallow river and found nothing, but on the way back out of the river Martin spotted an uncollared male jaguar standing just behind a tree, he was dripping wet and had probably waited for us to go past before crossing over the river. This was a battle scarred male, we had great views of this male as he walked in and out of the forest along the river bank for the whole length of the Black Bay River. This male had been involved in a brutal fight with the collared male we had seen mating with the female a couple of days ago and despite his huge size had come off worse. He had lost his right eye as well as suffering a huge gash the length of his forehead (inflicted by a blow to the face from a forepaw, presumably damaging the eye at the same time) and many puncture wounds (inflicted by the canines of the other male) on his shoulders, neck, forelegs and chest, he also damaged one of his canines in the fight. He hadn't been seen since the fight and some of the guides had worried that he would die due to his wounds or an infection, but he was in great condition and looked completely relaxed as he patrolled the riverbank, scent marking along the way. He even rolled around some small trees, grabbing the branches and pulling them down to him before rolling on his back and patting the leaves with all four paws. This was incredible to see, this playful behaviour is unusual in any wild mammal once they become adults and particularly rare in males. Watching this close and intimate behaviour was incredible, rubbing his cheeks on tree trunks, playing with saplings and scent marking are all great indicators that he is doing fine despite his bad looking injuries. We followed him still and when he came to a small, almost dried up creek that was clogged up with vegetation. We gambled that he would continue around and positioned ourselves opposite a clearing further upstream. After around 15-20 minutes he did cross the creek and came towards us, we carried on following him as he hunted caiman along the water's edge, he made an attempt on one but the caiman got a head start and amidst the splashing in the water hyacinth the jaguar came out empty handed. This sighting turned from brilliant to exceptional as he continued walking along the Black Bay River and along a beach. This stretch of the river was little more than 4m across and around 40cm deep, the engine was trimmed all of the way up and paddled were used to punt and paddle the boat along as slowly and silently followed he along. We were now within 10m of the male as he walked along the beach just ahead of us and then lay down and rested. We couldn't have planned a better sighting, this was one of the best jaguar sightings that Royle Safaris has ever had in the Pantanal and a fantastic way to start the day. The male then carried on and left us as he moved inland and away from the river, so we turned around and when leaving the Black Bay River we had good views of a caiman feeding on a catfish on a sandbank, this was shortly followed by watching a giant otter feeding on a fish. As we entered and explored the Three Brothers River we came across the giant otters at one of their holts, they were with a young kit, the adult female moving the kit from this holt towards another holt around 100m downriver. We followed the giant otters as they moved the kit to this holt and disappeared themselves, so we headed further upriver. By now the sun was trying to break through the clouds and many caiman were out basking on fallen tree trunks and beaches, trying to warm up after a very cool night and morning. We headed around the island and had some great bird sightings including a pair of black-collared hawks, capped & striated herons, ringed kingfishers and rufous-tailed jacamars. When we arrived at the island we heard a capybara alarm call and the subsequent splash indicated that it had dived into the water, we slowly came around this bend in the river hoping to see a jaguar on the bank. But all we found was the capybara in the water looking quite nervous but we couldn't find any reason for the nerves or alarm. After not finding the reason for the capybara's alarm we left and headed back towards the giant otter holts, when we arrived there we found the giant otters jumping out of the holt and diving into the river and swimming back towards the other holt. We followed the giant otters back towards this other holt as they played and splashed along; on arrival at the first holt there was lots of very high pitched squeaking and gargling. This is a contact call from adults to



kits and it wasn't long before the other kits emerged from the holt and started playing with the adults in the river. They were also joined by the adult female carrying the same kit she had taken to the second holt previously. We watched as all 6 adults and one of the kits travelled noisily from this holt back downstream to the second holt, when they arrived here a few of the adults with the kit went into the holt high on the river bank whilst the rest turned around and went back. By now it appeared that this was a swimming lesson or important socialising for the kits as there seemed to be no benefit to the adults to be swimming back and forth from one holt to the other like this. When they arrived at the first holt they went inside and we waited hoping that they would bring out the other kits and take them to the other holt. As we waited the other adults came back carrying the kit and with many high pitched calls the other adults and kits came out of the holt and we got fantastic views of all 6 adults and the 4 kits as they played and groomed each other in the shallows of the river bank. They all swam towards the second holt and maybe this was an important lesson for the kits in that they were getting used to the river, different holts and also the sights and smells of the environment whilst safely in the company of the whole family unit. Giant otters are the most social of all otters and their family groups are made up of a breeding male and female with their offspring of various ages. Once the offspring reach maturity (3-4 years old) they tend to leave the group in order to establish their own breeding pair. However some giant otters stay in their family group for much longer and some females stay with their parents until they die and they can inherit the territory. This social system is very similar to that of gorillas despite these two species being incredible different in biological terms. Once we watched the group complete with the kits head into the second holt we left for the Caxiri Canal as he heard about a jaguar there. When we arrived the jaguar was lying down in very dense vegetation and very hard to see, as it was getting towards midday and it would seem unlikely that the jaguar would move from his sleeping den we left for the houseboat and lunch. Just after lunch we hadn't even left the boat when Fisher and the boat staff called down to our rooms that a jaguar was on the beach opposite the boat, in a quick scramble Roy, Kate and Martin boarded the boat and made it over to the opposite side of the Cuiaba River. Here a dark coloured collared female was found walking purposefully along the beach, going in and out of the riverside vegetation. After a few minutes and around 200m of riverbank we lost her in very thick vegetation so we went back to the houseboat, collected Lee and came back out to find her. We did find her again (by following the movement of the bushes as she hunted caiman), we heard a couple of splashes but she apparently didn't capture a caiman. We then left her and travelled up the Cuiaba and onto the Three Brothers River, it was quite quiet with a pair of southern crested caracaras feeding on a large fish that that must have scavenged from a caiman and suckling baby capybaras being early highlights. We then heard of a jaguar sighting upstream and we came to a group of boats who had been following the jaguar along the bank, it was now hidden from view as it went behind a small forest. We went ahead of the rest of the boats and predicted where the jaguar would emerge and we waited there. After a few minutes the jaguar came out on the bank in front of us. She looked straight at us and then lay down on the bank, we waited with her for around 30 minutes before deciding to leave her and try our luck on the downstream and on the Black Bay. We then found a beautiful blue-crowned trogon and spent some time positioning the boat for good views of this stunning and colourful bird. Whilst we were doing this Fisher and Martin heard purplish jay alarm calls from the opposite bank, so we headed over for a closer look. We then found a female jaguar sleeping under a tree very close to the river. We waited with her as she rose from her resting place and jumped up the bank to lie down in an even better viewing place for us. This was very close to where we had been smelling a dead animal over the last day and a half and we wondered if this was a recent jaguar kill that she was guarding. There were also 6 black vultures perched in a nearby tree, which further testified to our speculation that she was guarding a kill. We waited with her as she rested in the shade until around 5pm and once it began to get dark we headed back to the boat for dinner.



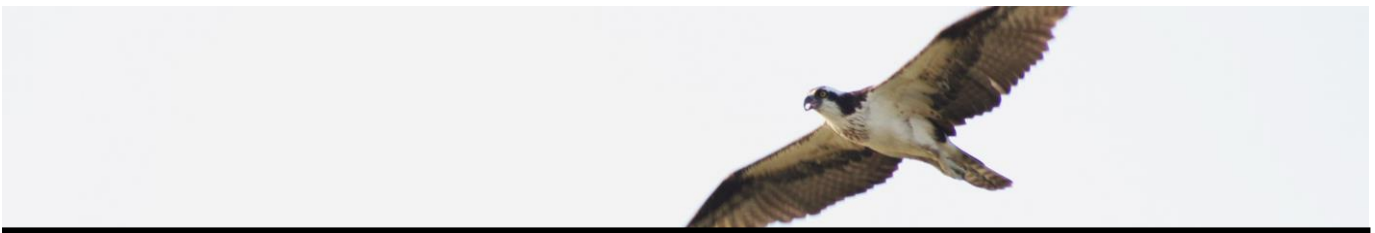
Day 6 North Pantanal

Wildlife Watching

Today started cool and overcast once again, this little cold snap (by Pantanal standards) sparing us from the brutal heat that the Pantanal usually serves up during October. But today started very well, we had only just arrived at the Black Bay River as three other boats were watching a collared jaguar walked along the bank, crossed the peninsula onto the Three Brothers River and the swam across in front of us. The power of the animal as it swam in a straight line despite the intense current being showcased. The jaguar quickly climbed the bank and disappeared into the forest, we tried to follow the jaguar along the Cuiaba River in the direction that it was moving in but we didn't find it again. The forest on this side of the river being very thick and difficult to find any jaguars here. We then went back to where the female with the carcass was last night, on the Black Bay River. We didn't find here but did have great views of a little cuckoo as it perched very close to us; we had other great views of a green-and-rufous kingfisher, a piratic flycatcher, nest building yellow-rumped caciques and a brief view of an undulated tinamou. Then a little further downstream we did find the female as she was moving along the river bank. She was following the exact same route at the male from yesterday. We positioned ourselves in similar positioned to yesterday and had great



views of her as she came in and out of the vegetation. At one point when we were waiting Zein found a large veined tree frog who had taken up residency on his console. So we had good views of it before releasing it back into the forest. We then went back to the female jaguar as she crossed the same overgrown channel like the male yesterday before disappearing behind a tree. We waited for 20 minutes but after we still couldn't see her we left and had a brief glimpses of a giant otter before finding a cocoi heron struggling with a large sailfin catfish and being mobbed by a great black hawk. Watching this large hawk chasing the big heron along the river was a great sighting. We also spotted a striated heron with a relatively large fish too (evidently the fishing is good this morning). The only other sighting of note on the Three Brothers River was a family of capybara on a beach, the adult male and female with 3 young babies allowing us to get very close for excellent views. Their meditative stances perfectly relaxed as we drifted to within 3m of them on the beach. On our way back to the houseboat for lunch we visited the Black Bay River to see if the female had moved at all, she had moved to a different tree by was still hard to see and shortly after arriving she moved deeper into the forest and we left for lunch. After lunch we decided to try the Piquiri River where we quickly found a different giant otter family from the one we have been seeing on the other rivers. We found the group with 2 kits (slightly older and larger than the other kits) feeding on fish near a sandy section of raised bank. For over an hour we were the only boat here as we anchored up and watched them play-fight, fish, eat, play, groom and scent mark (their unique way of walking over the soft faeces and sliding around to spread the scent around being particularly interesting to see). There was lots of murmuring and squeaking as the kits fought the adults of the fish and the adults wrestled with each other for the best fish and resting positions on the half submerged trees and branches. It was very interesting and special to see the kits following and copying the adults as they climbed up to the top of the sandy bank and defecated with their special scent marking behaviour (as described above), the young kits copying although they didn't quite get it right; often sliding around without having stepped in their faeces. Eventually (maybe 25 minutes into the sighting) the adults all climbed on the sand bank, rolled around and scratched to relieve themselves from parasites. They then fell asleep, however the kits were far too playful and they were not interested in sleep. They would try and sleep but after 30 seconds they began to pester their mother for milk (which she occasionally obliged with) of they would play with each other whilst the adults slept. Whilst the giant otters were sleeping and resting on the sandy bank an Amazon racerunner lizard was busy cleaning out it hole on the top of the bank. The noises and flying sand disturbing the adult giant otters every now and again. But this was important resting period for the usually very energetic otters and the lizard was not going to get in the way of them sleeping. This was an incredible sighting and a real insight into their life, to steal away an hour or so and share it with this family of giant otters was very special and a definite highlight of the tour. After around an hour they left to resume their fishing and we too left to carry on upstream along the Piquiri River. The Piquiri River has far less aquatic vegetation growing along the banks and as a result the beaches are much longer, on one of these beaches we a pair of jabirus with wings outstretched drying after bathing, further along this same beach we found a pair of beautiful sunbitterns. They were walking along searching for food, but didn't show us their interesting behaviour where they spread their patterned wings to create shade that unsuspecting fish swim into for cover and the sunbittern then pounces with speed and precision. We also came across a hunting osprey, by following the osprey as it flew along the river occasionally diving down to try and catch a fish and then perching briefly on a tree overlooking the river. Unfortunately for us and the osprey he was unsuccessful in his fishing; as we continued along there were many chaco chachalacas and blue-throated piping guans foraging around giant otter holts, this is as they feed on the faeces of the otters after they have scent marked with their strange shuffling dance. We didn't see many more animals along the Piquiri and as the sun began to set we turned around and headed back towards the houseboat, along the way we came across 4 chestnut-eared aracarís preparing to roost in a tall dead tree on the banks of the river, by now the sun was very low in the sky and the stunning plumage of the aracarís was barely discernible in the dim light. Towards the confluence of the Piquiri and Cuiaba Rivers we watched a small family group of black howler monkeys as they moved to their sleeping tree. Making large and acrobatic leaps from one tree to the next along the way. The only sighting of note before we got back to the houseboat was a tree full to the brim with roosting neotropical cormorants and a pair of nesting jabiru storks, the leafless manduvi tree being silhouetted and looking like a prop from the Hitchcock film *The Birds*.



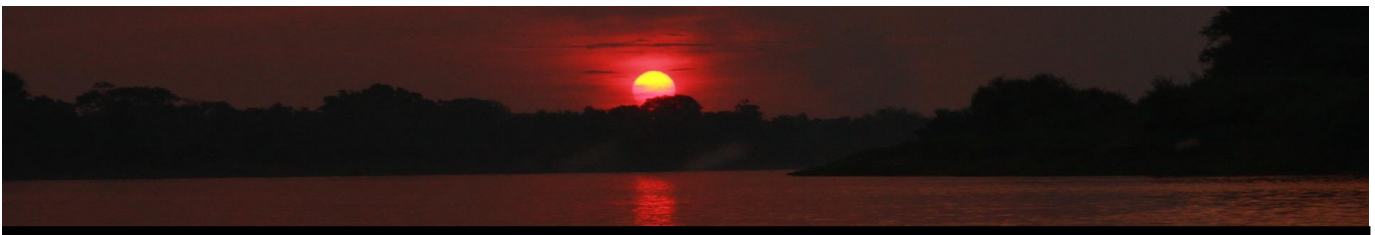
Day 7 North Pantanal

Wildlife Watching

Today began sunnier than the last few days and there was many more birds active this morning, the warmer morning meaning that many insects were active today and so where the birds. Along the Black Bay River we had good views of a pair of straight-billed woodcreepers and a little further along we came across a mixed foraging group of black howler monkeys, Azara's capuchin monkeys and also a small flock of blue-throated piping guan. The first half of this morning was quiet as we went along to the island and collected the camera traps, photographing the colourful water hyacinth flowers along the way. We also had great views of an adult rufescent tiger heron feeding on a large fish and a brief sighting of a giant otter. We travelled along the narrow Caxiri Canal and back



towards the confluences of the Black Bay, Three Brothers and Cuiaba Rivers via the Cuiaba River. The morning soon heated up towards the normal temperatures of this time of year and the river was very quiet, the only sightings we had before getting back around to the Black Bay River being a jabiru in a nest with 2 chicks and a pair of toco toucans flying over the river. However this all changed when we got back to the Black Bay River when we had a brief view of a jaguar disappearing into the forest, we went over the Three Brothers to see if he would emerge on this side. He didn't so we went back to the Black Bay River, he was the collared male of the mating pair (with the scar on his muzzle, exposing his canine) and it wasn't long before he came back out and began to walk along the shore of the Black Bay River. He came down the bank to the river and lay down under the roots and branches of a thick tree on the water line. We waited with him when we heard from another boat that the female was also nearby. She was also lying down in the shade of a thick tree and both jaguars were very hard to see. However we stayed with the female jaguar to see if she would wake up, whilst we waited we watched a pair of nesting yellow-chinned spinetails coming and going from a small hole excavated in dead vegetation, they were bringing food to their unseen chicks and they were very hungry as the adults constantly brought food back to them. We also watched a pair of black-collared hawks feeding on a fish, we had excellent views of these hawks as one ate the fish and the other calls with their strange moaning like call from above it in the tree. We then left for lunch and afterwards came straight back to see if the male or female had moved. We watched the male climb back up the bank and go into the forest, we had heard from another boat that they had dragged a dead caiman (the carcass of which we had seen floating in the water hyacinth over the last couple of days) into the forest and were taking it in turns to feed on it and sleep nearer the river. We decided to anchor up and spend a fair bit of time here and hope that either or both of the jaguars would emerge, the male did but then quickly vanished again. As we waited we had great views of a squirrel cuckoo foraging very low to the water and very close to our boat, this bird that usually like to remain hidden and hard to see well was treating us to very clear and good views. As we were watching the squirrel cuckoo, Kate who was sat at the back of the boat started to take pictures very quickly and as we turned around the female was walking straight towards us through a narrow gap in the trees and towards the bank only 10m away. This was a fantastic view as we were the only people who had decided to wait here and because we had been so quiet the jaguar herself didn't realise that we would still be here and visibly shocked when seeing us on the river. She climbed down the bank in front of us and had a drink, we stayed with the female for a while longer until she again disappeared into forest and we left to try the Three Brothers Rivers. We quickly came across another mating pair of jaguars however only the female was visible when we arrived, she was lying on the river bank looking out over the fast flowing Three Brothers River, we waited here for around an hour to see if the male would come out or the female move somewhere, but at around 16:30 we started back towards the houseboat as we were going to try some spotlighting a little way along the Transpananteira this evening and had to meet our driver at Porto Jofre at 17:30. Along the way we stopped a couple of times as the sunset was truly magnificent, even by Pantanal standards. As the sunset and we started out on our drive the smoke from the still raging fires was everywhere. This smoke was going to make spotlighting hard as visibility was diminished and also the fact that a lot of the roadside vegetation where we had the time to get to had been burnt in the last 2 weeks and so we were unsure what we would find. As it turned out the fires had proved to be very harmful to our chances of finding many mammals. In the past we have had great success in spotting cats on this stretch of road, animals such as jaguars, ocelots and oncillas had all been seen but tonight we only found some capybara and common pauoque nightjars and many caiman and greater bulldog bats. However the bonus of the night came towards the end, in fact only around 100m away from Proto Jofre's airstrip when Fisher spotted eye shine and as we got out of the vehicle and looked into the trees close to the road we had very brief views of a common gray four-eyed opossum. Luckily the face and tail were visible well enough and for long enough that the identification was possible. On the boat journey back to the houseboat from Porto Jofre the sheer abundance of flashing and glittering click beetles (a bioluminescent beetle) was stunning, both river banks flashing and flickering yellow-green with hundreds of thousands of beetles all in search of mates with their carefully timing flickering of light.



Day 8 **Transpantaneira**

Travel & Wildlife Watching

This morning we left the houseboat at 07:30 and headed up the Transpantaneira, it looked like rain was on the way this morning, which would be very welcome in light of the fires that were still raging around the highway; they were also closer to either side of the road. In fact the wildlife watching was significantly hindered once again as the first several miles of the road were devoid of most life. The fires having scorched the land and any animals that could have long moved on to other areas. The fires are very productive for a couple of groups of animals though and there were plenty of vultures (black, lesser yellow-headed and turkey vultures) as well as raptors (black-collared hawks, roadside hawks, savannah hawks and southern crested caracaras) around. They would follow the fire lines



and pick off insects, reptiles, amphibians and small mammals as they flee the fires. After a while we had cleared the fires and we began to see many more animals including a great sighting of a pair of giant tegus using the road and the morning sun to warm up. Fisher then spotted an anaconda in a nearby pool, however as we stopped and got closer we realised it was the coil of a large dead yellow anaconda. We couldn't see any possible cause of death but unfortunately in the last month Martin had seen 1 live anaconda and 2 dead ones, whilst we couldn't tell what had killed it, there were no signs of the anaconda being killed by a caiman or jaguar (the only predators of an anaconda of this size) and local people do still kill snakes when they are seen. So ancient belief that all snakes are evil and dangerous is still rooted in some local people here and this could be a possible cause of death. Whilst we were stopped here with the dead anaconda we saw many of the bird species that are common around waterholes along the Transpanteira, including a southern screamer complete with 5 chicks. Just a little way down the road from here we came across a group of large yacra caiman feeding on a smaller caiman, as the dry season reaches its peak cannibalism is common as smaller caiman provide some of the only sources of food in some of the smaller pools. We watched as some of the larger caiman took possession of carcass and started to dismember the carcass with death rolls. Carrying on around we came across a bat falcon perched outside its nest hole, allowing us great views of this often elusive yet very pretty raptor. In the same tree there was a pair of toco toucans feeding however they flew off before we could get great views. Other notable sightings before lunch included a pair of noisy hyacinth macaws, a male marsh deer close to the road but hidden by thick bushes a second marsh deer (female this time) in a slightly better position and more visible. We also saw a female red brocket deer with a fawn walking through a small field as we approached Rio Claro Lodge for lunch, when we got there rain began to fall and the bird feeders remained empty. Although this wasn't for long as within 20 minutes of being at Rio Claro the plethora of feeding birds were around in abundance. Along with the yellow-billed cardinals, nanday parakeets, chaco chachalacas, southern crested caracaras, shiny cowbirds, bay-winged cowbirds and the common birds around the lodges along the Transpantaneria. Amongst these sightings we were also shown a tropical screech-owl underneath an old piece of farm equipment, the owl had a broken wing and was trying to cool down in the heat of the day. We also spotted burrowing owls, white-eyed parakeets and a sunbittern whilst here. Then after lunch we left quickly found a small group of coatis feeding in some trees as we were watching the coatis a crab-eating fox came bursting out of the trees (tail deeply between the legs and hackles raised) and across a small section of grass towards us; being chased by a pair of very irate male coatis. The rest of the group had dispersed deeper into the forest whilst the fox skidded to a halt, saw us and then ran into the forest (presumably risking the coatis than running into us!). What was very interesting was why a group of coatis feeding in the trees would be so aggressive towards a crab-eating fox (presumably not much a threat in this situation), we could only assume that they must have had young coatis and they protecting. A little further along, as we came towards the end of the Transpantaniera, we came across a couple of large pools either side of the road where a huge group of large yacre caiman were sunbathing and resting in the shallows. As today was cooler than usual and the rain was coming and going we witnesses the beginning of an inland migration, here a large number of caiman began to move. They were leaving the pools as they moved into the ranch land in search of fresh pools of water than still have fish and other food in them. It is unusual to see this behaviour as they often only do this at night so that they don't overheat out in the sun. Only now were we able to see just how many caiman were in the pools as several hundred were moving slowly in an endless procession across the field towards the forest. All of them following the same well-trodden caiman highways. We then left this prehistoric scene as the rain began to fall again and the sightings were few and far between as we headed back to Cuiaba and to the hotel. We had dinner at the hotel and prepared for the long day of travelling tomorrow as we would head south to a very different part of the Pantanal.



Day 9 **Embiara Lodge**

Travel & Wildlife Watching

This morning Ailton came to drop us at the airport and after saying bye to him we duly completed the formalities at the airport before departing Cuiaba for the capital of Mato Grosso do So, Campo Grande. The flight was 1.5 hours and when we arrived we were met by our driver Jefferson, he would drive us to Aquiduaana which is the closest town to Embiara and then a further 5 hours through the ranch land. We lunched at a roadside café before reaching Aquiduaana where we also picked up some groceries for the lodge as they are so remote they need every vehicle coming in to bring needed food and equipment. The drive to the beginning of the ranches was very uneventful, with long straight motorways all the way to Aquiduaana. Then when we reached the beginning of the dirt road that would take us the 120km into the heart of the southern Pantanal. As soon as we were in the rural land again we started to see the wildlife that makes this region so wonderful. Many greater rheas, picui ground doves, monk parakeets and toucans made the journey very pleasant. The mammal highlights included 5 giant anteaters, we saw 4 in the



same two fields; one carrying a baby on its back and another reasonably close to the road. Unfortunately the stretch of road we were on is fenced off from the fields and we were unable to get any closer to them for photos. We saw the fifth giant anteater next to the road, it had been drinking in a small pool near the road and we found him walking towards a line of trees bordering a field. Whist Roy and Martin got close to the anteater in a small stand of trees, we didn't have great views of the anteater as it carried on walking and didn't come back out into the open. Some of the other highlights for the long journey towards Embiara being a male greater rhea with no less than 10 stripy chicks. It is the male rheas that look after the eggs and chicks and it was great to see this male with so many small chicks in the open. They often care for several dozen chicks and the fact that there were only 10 around this male was a sign that a few had become food for the numerous hawks, foxes and small cat species that predate on them. A couple of other sightings were a flock of 8 hyacinth macaws feeding on seeds and collecting palm nuts that have passed through the digestive system of feral pigs and tapirs on the ground. As well as the more common species of birds (as mentioned above) we saw many coatis and many greater rheas throughout the journey. We then made it to the rickety old bridge over the Pantanal's own Rio Negro (not the same one that meets the Amazon River in the north of Brazil); after we had been through 30 of the 36 gates and the signs that we were getting close to Embiara Lodge. The only notable mammal sighting once we got onto Embiara's land was a small group of white-lipped peccaries that crossed the road with their teeth chattering loudly. On arrival we were met by the barking of Nina the gorgeous (if not very shy) jack russel and the cawing of hyacinth macaws that had taken up residence in a tree in the middle of the lodge complex. After these noisy welcoming calls Roy, Lee and Kate went into the main house for a welcome drink and to meet Stefan the lodge manager, Matthew and Alessa, two of the guides here. Afterwards everyone was shown to their rooms before a wonderfully prepared and tasty dinner. Afterwards we were warned that a young puma has taken up a territory around the lodge and with Stefan having a very close encounter a week previous there was no walking around after dark on your own. We also met Will Feral the feral pig who has also taken up accommodation at the lodge. The feral pig is the only animal in the Pantanal that the local people can hunt and what they do is look out for young males that they lasso and castrate (to take to the bitter testosterone out of the meat) before cutting off half of the tail and making a nick in the ear and releasing the animal back. This is so that they know which males to kill once they reach a good size. It is a brutal process but it provides the local people with meat (other than beef) and the abundance of the introduced pigs is tolerated for this reason as well as giving the jaguars and pumas another easy prey source so they take less cattle and thus come into conflict with farmers less. This is a strange example of an introduced animal having a positive effect on the local wildlife, by keeping the native species from being hunted and also providing a food source to top predators that does not impact the profit margins of the ranchers around here.

Day 10 **Embiara Lodge**

Wildlife Watching

This morning we started with breakfast in the midst of dozens of resident bare-faced curassows as well as crested oropendulas, nesting hyacinth macaws, plush-crested jays, purplish jays, southern crested caracaras, white-tipped doves and pale-vented doves and the feral pig and crab-eating fox that are all coming the lodge grounds home at the moment. After the breakfast and a little photography of the stunning birds here (the blue, purple and yellow markings on the plush-crested jay, making it one of the most attractive birds in the Pantanal) we departed the lodge for a walk amongst the fields nearby the lodge. Shortly after leaving the immediate grounds of the lodge we came across a small flock of undulated tinamous foraging on the ground, this common but seldom seen bird is a rather like a large partridge. They are often heard with their distinctive 4 note whistling call but they are not often seen in the open at all. As we walked here we were guided by the excellent Adalto; Adalto is regarded as the best tracker and guide in the southern Pantanal and Embiara are very lucky to have him as he is regularly approached by other lodges and tour operators. He has lived his entire life here and has seen everything that the Pantanal has to offer. We were also joined by Alessa so that we were sure of finding any wildlife that would be around with the help of these two knowledgeable guides. We then came to a small freshwater lake with lush vegetation (mostly sweet smelling canfer) around the edge and we got nice views of blue-throated piping guans drinking on the shore of the lake. Further around the lake we came to a couple of lines of leaf-cutter ants. Their never ending labour manifest in the cleared 'highways' they have created through the grass and canfer; it is incredible to see cleared trails through the vegetation that are created by millions of tiny feet as they endlessly march onwards collecting food for their fungal gardens deep inside their nests. As we walked around the other side of the lake we saw some of the manduvi palm nuts that are so prized by the macaws as well as peccaries, tapirs and feral pigs in the area. We then came across a group of white-lipped peccaries, they were heading down the pathway ahead of us, the peccaries (both white-lipped and collared) are amongst the hardest mammals to get close to as they are so skittish. They carried on walking towards us until they were around 20m away when they suddenly noticed us and they snapped their teeth together loudly, raised their hackles, released the pungent alarm odour and disappeared into the forest. We continued our walk through the palm forests and were shown some of the local tree species such as bociuva (probably the single most important palm in terms of a food source for the wildlife around here) and also a large black fig tree; the trunk like tendrils of the large fig tree forming a curtain fringing a section of forest. The incredible spotting skills of Adalto were highlighted with a couple of fantastic bird sightings, firstly a breeding pair of purple-throated euphonias fluttering around a small tree near the trail and then later on (nearer the lodge) a roosting greater potoo. This perfectly camouflaged nocturnal bird pretending (quite convincingly) to be an

extension the branch it was perched on, remained very statuesque as we watched. With feathers that match the local tree's barks to perfection and an ability to remain absolutely still for hours on end, allows the potoo to go unnoticed in the tree during the day. Whilst the bird sleeps away the daylight hours it remains concealed in direct view from predators such as hawks, snakes and small cats. In between these two bird sightings we saw a ringed kingfisher hovering above a lake searching for fish, a pair of white woodpeckers on the runway, great views of pampas deer and also a flock of 7 red-shouldered macaws. These macaws are the smallest and rarest of the macaw species here and to see 7 in a tree close to us was exceptional. After the potoos close to the lodge we walked to a small viewing platform above an inlet of the Rio Negro. Separated by 100's of kilometres from the more famous Rio Negro in the Amazon, but both rivers get their names from the high concentration of tannins in the water. These bitter chemicals are released by vegetation (particularly in leaves) and turn the water a dark brown (almost black) colour. We waited here for a while as Martin set up one of his camera traps here, he set it up on a section of pathway at the back of the lodge that has resulted in many species of mammals in the past and we hoped for jaguarondi again! When we arrived back to the lodge we had some rest time, after checking in on the resident hyacinth macaws before lunch. Shortly after lunch we heard very intense purplish and plush-crested jay alarm calling behind the lodge. We went off to have a look and see if we could find anything that was causing the alarm calls. After around 15 minutes of quietly and carefully tracking in the forest we came to where the birds were focusing their alarm calls, but it was very thick vegetation with thorny leaves, we couldn't get inside for a closer look, but at the birds were calling very intently on a small patch of ground and we were within 4m of the birds; we figured that we could rule out jaguar or puma and it was mostly like a small cat (oncilla or jaguarondi) or a snake such as a boa constrictor. Then after excitement we headed out in a jeep for a safari; Matt was our driver and Stefan would be our guide. Early in the drive we came across many pampas deer and two brown brocket deer as well as a toucan being mobbed by smaller birds. Toucans are nest raiders and as well as eating eggs they will also take chicks and small birds, so small nesting birds have no tolerance for toucans. We then drove down the sandy corridor (the common road used to connect various lodges and ranches and also used to drive the cattle up and down when they are sold). We stopped off at the pair of burrowing owls who are usually perched on the tree or fence post next to their burrow next to the road. This afternoon was quite cool with the threat of rain in the air, we had the occasional rain shower. This is good weather for mammals as it is not particularly hot but for the most part mammals remained elusive. We did have great sightings of both black-bellied & white-faced whistling ducks in large flocks on lakes. We then carried on to the huge drainage field, Embiara is not just a lodge, it is also a working cattle ranch. With around 800 head of cattle the ranch is quite small and the land is not overgrazed. As a result compared to other more intensive cattle ranches is evident in the lushness of the vegetation and abundance wildlife; compared to the parched and withered grass and lack of wildlife on the large cattle ranches. The safari drives explore many of the different habitats from the green pampas grass fields, freshwater lakes that receive flood water, salt-water salinas that do not receive flood water, forests and the vast drainage field which floods each year and forms a 120km river through the ranches and acts as a fish breeding ground. In fact two years ago they had the largest floods in over 80 years and nearly all of the southern Pantanal was underwater, with the rivers rising at an average of 30cm a day for nearly 3 weeks! The drainage field is a great place to see water fowl and many other species of birds and we saw many birds including roseate spoonbills, great & snowy egrets, whistling, cocoa & rufescent-tiger herons, maguari, jabiru & wood storks, wattled jacanas, plumbeous & bare-faced ibis, southern lapwings and black-bellied & white-faced whistling ducks to name but a few of the most abundant species. On leaving the drainage field we drove through some flood forest and around other freshwater lakes where we found nearly 10 jabiru chicks, all fully fledged but still with a white cap on their head marking them as adolescent and not adults. Other highlights this afternoon included more great views of red-shouldered macaws and many more jabirus all feeding in the shrinking pools of water. As the water dries up the remaining fish become easier and easier to catch and this is where the many jabirus were congregating this afternoon. Before sunset we also had good views of a toucan as well as a fly by from a stunning blue-and-yellow macaw. After the sunset the we spotlighted our way back to the lodge, it was quite quiet with only white-lipped peccaries, pampas deer and a crab-eating fox being seen on the way back to the lodge for dinner.



Day 11 **Embiara Lodge**

Wildlife Watching

This morning after breakfast we were escorted on foot again, however we went towards the river and the riverine forests instead of the grassland. Our thinking for this route was to increase our chances of seeing a Brazilian tapir (which was high on Roy and Lees' wish list); during the mornings the tapirs are sometimes found here resting as the forests stay very cool. We were escorted once again by the excellent Adalto and Alessa. Early on we came across the roosting potoo again as well as its mate, the sexes being almost impossible to tell when they are perched and perfectly camouflaged. One was in the same place as yesterday and the other about 50m away and almost as impossible to see. We were joined on this pathway by a small group of white-lipped peccaries that didn't hang around very long. We followed them up a different trail and away from the lodge into the palm forest before reaching the riverine forests; as we walked along we came across lots of fresh scrapes, these scrapes were made by a puma. When they urinate or defecate they scrape their hind feet back and forth to form two parallel lines and a small mound of soil behind. They looked fresh and as this pathway was where we set up one of Martin's camera



traps yesterday we were hopeful that we would get a clip of a puma as it patrolled its territory. The frequency of the scraping suggested a male puma but this would only be confirmed when we collected the cameras in a few days time. On our way towards the river Adalto took his trusty machete and carved a pathway in places where trees had recently fallen and blocked the trails. We then entered the very different forests near the river; the darker forests here are dominated by trees and plants that can survive many months under water as these forests flood annually. Along with the shift from palm forest to riverine forest there is a distinct lack of ground vegetation here and the canopy is full, the reason that tapirs, peccaries and other mammals like to spend the day in these forests is that the temperatures can be around 10°C cooler under this dense canopy. Carrying onto the Rio Negro we had nice views of a gilded sapphire hummingbird as it fed on the nearby flowers before perching on an electric wire above us and sang its very monotone whistling song. All the time we have been walking this morning we were surrounded by a large group of white-lipped peccaries, we occasionally came across some of this group as we walked through, more often than not it would be some loud rustling followed by teeth chattering and grunting as they ran away from us. A little further along the path Martin spotted a very small and beautiful black, red and yellow butterfly, newly emerged from its nearby chrysalis the butterfly was waiting for the morning sun to come warm its wings before taking to the air for the first time in its life. We then came across a couple of tapir middens, the tapirs mark their territories by defecating in the same places and these middens can be quite large with spherical horse-like dung. Once we arrived on the shores of the river we found a small day roost of black-crowned night-herons and boat-billed herons. These are the two nocturnal heron species that live around here and it was great to see these two species clearly in the day. Walking just inside the forest along the river was noticed that it was very quiet this morning, some of the normal birds known from the river were seen as we walked along the beach, searching for tracks or possibly freshwater stingrays feeding in the sandy shallows. We did find plenty of stingray depressions, these round holes are where the stingrays forage for crustaceans and bivalves that are hidden in the sand. We also came across very fresh tapir tracks coming out of the forest, down the beach and over to the other side of the river and away into the forest. Unfortunately we seemed to have missed this tapir this morning; it may have even been the sound of us walking through the forest that prompted the tapir to move off. We waited for a while here in case the tapir would re-emerge from the side of the river, after a few minutes we carried on and had some nice bird sightings on our way back to the lodge as the temperature began to rise. Some of the best bird sightings included roseate spoonbills, yellow-headed caracara and black skimmers. The skimmers being particularly interesting as they patrolled their section of stream up and down in search of any unsuspecting fish at the surface. Before the final stretch back to the lodge we stopped at the a hide on the banks of the river, the hide had been badly damaged in the last wet season, but we sat and watched the river from outside the hide. As we sat here very intense alarm calls from both purplish and plush-crested jays started from a little way back. Adalto, Alessa and Martin went to have a look if they could find anything, but the alarm calls were moving away from us in a broken and undulating way. This type of call is most common when the jays have seen and are pursuing a raptor through the forest and we didn't find what they were alarming at. Once we arrived at the lodge there was a small group of coatis foraging around Martin & Kate's room as well as a pair of yellow-headed parrots and the residents of hyacinth macaws in the trees in the middle of the lodge complex. After lunch we went for a jeep safari with Stefan and Alessa; early on we found a pair of burrowing owls in their usual haunt along the corridor. After the rain showers of yesterday and this morning there were many woodpeckers and woodcreepers foraging, the rains increase activity of grubs and beetles and we saw many crimson-crested, pale-crested, lineated & white woodpeckers as well as narrow-billed and straight-billed woodcreepers. However the real highlight today was about to happen, we stopped at a large freshwater lake just off the corridor to watch a large group of capybara as they grazed on the fresh growth of grass on the water's edge. As we watched capybara Martin and Stefan both noticed a strange animal emerge from the tree line and walk along the far side of the lake; at first we both thought it was a calf, a reddish-brown tall calf (all legs and small body). But as soon as we looked through binoculars we exclaimed maned wolf! This strange species of dog is very tall, with large triangular ears and a rich and vibrant red coat, the long legs making it seem as if the maned wolf was gliding across the ground for around 30 seconds before disappearing into the forest again. This was the first record of maned wolf being sighted around here and the first spotted for Stefan and Alessa too. What an incredible and rare sighting, for those 30 seconds or so as the maned wolf walked gracefully along the tree line we were mesmerized by it, this rare and unusual fruit eating dog is one of the least seen mammal species in the Pantanal. We waited for the maned wolf to come back out of the forest for a few minutes before heading on and arriving at one of the salt water lakes (called salinas). The salt water lakes are formed when the rain water and receding flood waters are trapped over very salty rocks, clays and sand. As the water is evaporated during the dry season the water draws up the mineral salts from the earth (there is lots of salt in the earth here as the whole of the Pantanal used to be an inland sea until around 65 million years ago). The resulting mineral extraction and evaporation leaves some of the lakes very saline. They are obvious because they are devoid of aquatic vegetation and the perimeters of the salinas are free from ground vegetation as well. On this particular salina we spotted a large flock of swans (around 40 strong) some distance off before travelling further and finding many wading birds including hundreds of whistling ducks. Other good sightings this afternoon included very good sightings of red-legged seriemas as well as red-and-green macaws feeding in a palm tree. They flew over-head and moved to another tree that was even better for views; we stayed with the feeding pair of macaws for several minutes. As we carried on we came across feeding coatis as they climbed and foraged in the palm trees and then Alessa spotted a giant anteater in a field with tall grass. We climbed out of the jeep and



headed into the field in pursuit of the giant anteater, it was surprisingly fast as it moved through the grassland and into thick bushes. In between the bushes we got brief glimpses of this unusual species as it moved away from us and deeper into the field and towards the forest. Whilst we were in the field Stefan also came across a nine-banded armadillo briefly before it dived into a hole and away from us. We then left the giant anteater and armadillo alone and left watched a small flock of crested oropendulas skilfully building their nests as they hook acrobatically down from palm leaves over the road. We then arrived at another salina, this salina was full of white-backed stilts and both species of whistling ducks with a flock of fork-tailed flycatchers swooping and catching flies high over the lake, their incredibly long and thin tails flicking here and there as they turned and whirled around. As the sun began to set Martin spotted a nine-banded armadillo foraging on the shore of a freshwater lake in short grass, we got down from the jeep and approached the armadillo quietly. As he foraged and busily dug for grubs we got very close views of the armadillo, their eyesight is very poor and their hearing not much better so as long as we were upwind from him we got within a matter of feet and we got great views and photos of this usually strictly nocturnal species in the daylight. On the way back we spotlighted and amongst the many caiman we saw many greater bulldog bats, common pauoque nightjars and a pair of potoos when on the airstrip.



Day 12 **Embiara Lodge**

Wildlife Watching

This morning we had a trip down the section of the Rio Negro that is in Embiara's land with Stefan steering masterfully between the unseen sand banks and submerged trees and branches. Even before we had got on the boat we saw a flock of at least 30 snail kites flying high above the river. The snail kites form these large flocks when about to migrate and also when they have found a large food source. Whether they were migrating or flocking to a rich feeding lake is unknown but the spectacle was a great sight to see. A little further along the river we had nice views of a female Amazon kingfisher as well as a pair of nesting large-billed terns on a small beach, their very well camouflaged eggs remaining hidden from view. As we watched the terns a pair of larger black skimmers came to the same beach and started to noisily mob the terns. They were not happy about the terns being here, presumably they also have a nest here or they are looking for a nesting site and have chosen the location of the two terns. Along with these many other species of birds were seen along the river this morning, including another pair of purple-throated euphonias and a nesting pair of rufous-tailed jacamars. Other bird sightings along the river were hunting black skimmers, they regularly patrolled their stretch of river back and forth (mostly during the mornings and evenings when fishing is easier); squirrel cuckoos and an anhinga drying its wings before diving into the water and swimming away. We followed the line of bubbles from the anhinga and watched as the thin head and neck rose and swam on before diving down again. There were many butterflies around this morning with large flocks of yellows and whites on the shoreline feeding on the mineral and salt rich clay-like soils. Other highlights as we turned around and headed back towards the lodge we found ringed kingfishers as well as a rufous-tailed jacamar catching and feeding on a bee and of course the peaceful guardians of the river; a small family group of capybaras on the riverbank sunbathing, they were very relaxed and came down into the water to rest in the cool water and sleep. The temperatures were the hottest they have been so far whilst we have been in Embiara and the we arrived back at the lodge before the temperatures rose to the high 30's. This afternoon Matt and Stefan took us to the Embiara farm, this working cattle ranch, located at the drainage field is also where they keep their herd of horses and this afternoon we would see the Pantanal in the traditional cowboy style. However on our way to the stables we drove to a lake where a group of coatis were making their way towards, in the lake was a large group of feral pigs on the far side, white-lipped peccaries and many capybara in a mixed group on the nearside and amongst the many black-bellied whistling ducks strode a long tapir through the middle of the shallow lake. We were treated to fantastic views of the tapir as the sun beat down on the lake and the tapir waded through the water to the other side. After the tapir had crossed and disappeared into the forest we carried on to the stables, saddled up and began a horseback safari. Early on we had the usual sightings of southern lapwings, cattle egrets and the common waterfowl and storks still feeding on the fishing remaining in the drying pools of water around here. We then entered a small section of palm forest where Stefan found a blue-crowned motmot in the forest, this elusive and beautiful bird showing its elongated tail feathers, although its brightly coloured plumage was not discernible against the sky. As we left the forest and entered the drainage field again we heard jay alarm calls from the nearby trees and we found a couple of coatis feeding high in the trees. We watched them as they climbed very dextrously among the branches and went deeper in the forest. Back into the drainage field we came across many rheas as well as a few flocks of foraging guira cuckoos and the usual multitude of storks, ibis, lapwings, herons and egrets. After we arrived back at the farm we dismounted the horses, bade farewell to Ramon and the farm staff and began to drive back to the lodge whilst spotlighting. It was very quiet until we reached the crossroads leading to either Embiara or the neighbouring Barranco Alto Fazenda where Martin spotted a female tapir feeding on fallen bociuva



palm nuts. She was very close (around 10m away) and fed completely ignoring us, she then walked off and down the road away from us, we were with her for around 10 minutes and so didn't follow here. We had a great sighting and were able to get photographs and so left her to feed and we carried on to the lodge. This great sighting was the last of the day before we had dinner and retired before doing it all again tomorrow.

Day 13 **Embiara Lodge**

Wildlife Watching

This morning Stefan and Matt took us all down to a freshwater lake behind the airstrip for some canoeing, to canoe silently around these lakes is a great way of exploring the microhabitats that exist around, on and in each of the lakes. On leaving the lodge we saw the local crab-eating fox and when we approached the lake we noticed a small group of coatis and a larger group of white-lipped peccaries feeding on the shore of the lake. We approached both of these species closer in the canoes, as well as searching out many of the smaller species including the huge variety of invertebrates such as very unusual aquatic grasshoppers, water spiders, dragonflies and damselflies. All of these insects live their lives either directly on the water's surface (using the surface tension of the water to support their slight bodies and allowing them to walk, hop and run on the water); or in the case of the dragonflies and damselflies they live just over the water and use the many aquatic plant species such as water hyacinth and lilies that form mats of vegetation and are the equivalent of forests for these species. Only by slowly exploring the lake is it possible to notice this abundance of life, under the surface there are large shoals of paracuna are piraputanga fry as well as the endemic *Hypherssobycon eques* (Mato Grosso fish) and beautiful *Astyanax bimaculatus* and the unusual long-finned *Apistogramma trifasciata*. The *A. trifasciata* were seen protecting their fry by keeping them within the confines of their elongated pectoral and caudal fins. Along with the fish other vertebrates that live on the lake included many *Pseudis limellum* (a small frog species) and a couple of pairs of wattled jacana that live on the vegetation. One of the pairs had some young chicks but they carefully kept the chicks away from us as we paddling slowly towards them. This may have been due to our presence or the fact that a large clump of floating vegetation was playing home to a black-collared hawk. After circumnavigating the lake we walked back to the lodge where we found a savannah hawk being aggressively mobbed by southern lapwings and then in the forest behind the lodge complex Martin spotted a beautiful blue-crowned motmot. This time we could see the exquisite colours of the plumage and the long tail plumes that make this species one of the most sought after by birders in the Pantanal. In between this mornings' canoe and walk and lunch Stefan found a parrot snake in a palm tree near the boardwalk leading to the bungalows. By the time he had reached the rooms and told Martin and Kate they arrived just in time to see the beautiful green-blue, pencil-thin snake disappear into the tangle of leaves and fronds in the palm. Martin and Stefan tried to find the snake again so we could show Roy and Lee but it is not uncommon for these snakes to either remain hidden for many hours (until they are sure the threat has gone away) or because of their cryptic colouration and nature they can disappear easily and not be found again. Also around the lodge were the resident hyacinth macaws and their red-and-green cousins and a mother and fawn brown-brocket deer. All of which were feeding in the field overlooked by the bungalows. Then after lunch we left for an afternoon drive with Stefan and Matt; close to the lodge we had a giant tegu running very quickly ahead of the jeep, these lizards often run fast away from the jeep, without just running into the forest on either side and away from us. We then arrived at one of the lushest of the freshwater lakes around the lodge. Here we came across a large group of capybara and white-lipped peccaries, the peccaries feeding on the roots and tumours of the plants that the capybara were eating the leaves and stems of. We then spotted an intriguing raptor sat snugly on a nest in a bare manduvi tree, after considerable inspection we identified the bird as a female white-tailed kite, a rare sighting for here. A little further along we came across a fully grown adult female tapir feeding on the treeline of a small clearing. This was the best tapir view we have had so far and one of the best in Royle Safari's history of travelling to Embiara. For around 10 minutes we watched the largest wild mammal in South America as it used its short trunk to reach flowers, leaves and fruit from low hanging branches to within reach of its mouth. The tapir fed enthusiastically along the tree line before disappearing into the forest and we continued onwards. What a great start to the day so far. We then arrived at the nest hole of red-and-green macaws that we had seen a few days ago, they both left the nest hole as we arrived, flew right over us and then began to feed at a nearby palm. Leaving the red-and-green macaws and arriving at a salina there were many birds including hundreds of least grebes (making pretty patterns as they skittered across the surface of the water when we approached there part of the salina), white-back stilts and a pair of red-and-green macaws and golden-collared macaws feeding on the ground around the lake and a plumbeous kite perched in a tree overlooking this peaceful scene. This is a great place for macaws to forage as tapirs and feral pigs come to these salinas and defecate, leaving lots of half-digested palm nuts that the macaws in turn come along and feed on. Close to the lodge we came across a pair of crab-eating foxes scent marking, we followed them for about 100m before they moved deeper into the forest and we carried on towards the Rio Negro and the large bridge; where we were to watch the sunset. On the corridor heading towards the bridge Martin spotted a pampas deer fawn hiding in some tall grass on a mound close to the road. This is typical deer defensive strategy for fawns, where they rely on their camouflage to remain hidden, the mother was a few hundred meters away feeding and the fawn would be fine, if it hadn't picked such an obvious place. The raised mound, bright green grass contrasting with its brown pelage and the long grass covering the backside of the fawn but being missing from our side. If this wasn't the defensive strategy of the fawn it would almost seem like it was positioned here so we could have good views of it from the road. On reaching the bridge the sun had already



turned the sky a deep red hue and as it fell further towards the horizon the colours and shadows were beautiful. As the sunset we were joined by hundreds of brown-chested martins and white-winged & southern rough-winged swallows as they flew busily catching flying insects. We also watched many snowy egrets flying from the nearby water holes to a roost underneath a large tree overlooking the river. We also had brief views of a feeding neotropical otter as it swam away from us. When we returned to the lodge we spotlighted but other than white-lipped peccaries and pampas deer we didn't see anything.



Day 14 **Embiara Lodge**

Wildlife Watching

Today was our last full day in the Pantanal and we started with a drive to the drainage field with Stefan and Adalto; as we drove in the fields just after leaving the lodge compound we saw a mother pampas deer suckling a fawn and Stefan briefly spotted a yellow armadillo. The armadillo quickly disappeared into its burrow and we headed into the palm forests, where we found a caiman walking slowly over the road. With the weather having been rainy and cool a lot over the last few days it is more common to see caiman deep in forests and far away from the large lakes and rivers. Before we arrived at the drainage field we had great views of a brown brocket deer walking in the scrub close to the road. We stopped at the farm building and dropped off some food and fresh water before continuing on and across the drainage field towards the local school. Along the way it may be possible to find a giant anteater as the route to the school crosses some larger fields where anteaters are regular visitors. There were many pampas deer around today including lots of adult males with their lightweight three pronged antlers free of velvet and ready for the rut. On leaving the drainage field and entering forest once again we found a group of black howler monkeys, including a mother carrying a baby. We watched the mother and baby male as they walked quickly from tree to tree; the mother using her prehensile tail to support her weight as she bended branches towards the next tree. They can jump from tree to tree but where possible they prefer to use their weight to bend trees in the direction they want to move in and avoid risky jumps between trees. As we watched the female and baby we noticed the rest of the group beginning to move around (presumably after a late start this morning) in the trees a little further back from female. Closer to the school we had great views of a laughing falcon perched on a tree and then at the school we wondered in the classroom whilst Stefan explained the educational system in the Pantanal. There were no children in school today but we spent a little time around the school grounds and watched the many species of birds around here, common birds like great egrets and bare-faced curassows were common and we had watched an American kestrel hunting around the school grounds, using the palm fronds as cover to wait for prey to wonder close enough. The drive back to the lodge was quiet with some woodpeckers being the highlights of the drive back. We saw pale-crested and red-crested woodpeckers before a white-lipped peccary caravan crossed the road in front of us close to the lodge, all 27 peccaries speedily crossed in front of us before we arrived back at the lodge and we found one of the adult hyacinth macaws chewing on a branch near its nest hole. Exactly what the macaw was doing chewing on the branch we were not sure, maybe playing, practising its beak dexterity or maybe just playing. These intelligent birds are known to play with objects and also use tools to sharpen their beaks and crack open nuts. This afternoon we headed out once again for a safari drive, this time Matt taking over from Adalto with Stefan also joining us. At a large salina we heard the deep repetitive ho-ho-ho alarm call of black howler monkeys. We scanned the trees and found the male howler monkey on the opposite side of the salina (around 100m away), the only alarm call this urgently, loudly and aggressively in the presence of a big cat. We waited and watched and it wasn't long before we heard the harsh cawing of jays as they joined to the alarm calls. We waited for around half an hour as we were certain that a jaguar or puma was hidden from view just inside the forest; as time wore on the jay's alarming stopped and the howlers seemed to relax more, they still alarmed but less persistently and we decided that we should move on and the chances of the big cat coming out now were slim as it seemed (from the change in intensity of the alarm calls) to have either lay down to sleep or moved away into the forest. Also with the salina not being a freshwater lake it was unlikely the cat would come out, there was no potential prey around the lake and no water to drink. Further along we spotted a foraging yellow armadillo in the open, clearly showing the differences between the nine-banded armadillo we saw very well a few days ago. The yellow has longer and coarser hair and the bands are not as complete around the flanks and the overall shape of the animal is less smooth and rounded, looking less like the 'typical' armadillo. The internal differences are even more striking as the yellow armadillo is the only species of edentata (sloths, anteaters and armadillos) that has large and functional teeth. The lack of large or functional teeth is a characteristic of the edentata; a characteristic that the yellow armadillo lacks and as a result this species is a predator as well as insectivores and in captivity they have been recorded killing rats and one individual even tried to drag a deer fawn into its hole! This means that the yellow armadillo is typically more active and quicker than other armadillo species, a fact we saw when it quickly ran into the forest after finally noticing our jeep (after a few minutes of not sensing our presence at all). At a second



salina we found a pair of hyacinth macaws foraging for bociuva nuts around the shore, we watched as they raised the nuts with one of their feet to their mouths and whilst holding the nut in their claws they positioned the nut with their tongue into the correct position to use their really sharp beak to break the hard nuts and retrieve the nutritious seeds inside. Further around this salina we took advantage of the low light and great reflections to take photos of the stilts and a lone roseate spoonbill in the still water of the salina. The sky was looking ominous now, the clouds darkening and the odd flash of lightning brightening the gloom in the distance, a storm was on the way for sure, but would it reach us whilst we were still out or when we had got back to the lodge was the question. We watched the storm approaching from a small field lined with forest, the clouds growing in size and anger with a steady and impressive show of thunder and lightning providing entertainment to us for around 20 minutes. We left as the rain reached us and we decided that being out in the open during a lightning storm was not a great idea. On the way back to the lodge we had brief views of a small group of collared peccaries crossing the road and when the storm had engulfed us we turned on the spotlight and the only other sighting we had being a pair of crab-eating foxes close to the road. On arrival back at the lodge we relaxed and waited for dinner as the rain came down and the storm thundered around us.

Day 15 **Embiara Lodge & Cuiaba**

Wildlife Watching & Travelling

This morning we had our last game drive with Matt and Stefan with Maneola joining us too; on the freshwater lake closest to the lodge we found a large group of capybara feeding and relaxing in the shallows as well as many birds including savannah hawks, blue-throated guans and the normal cast of lakeside birds. As we carried on into the fields there was a nesting pair of savannah hawks in a tree close to a feeding group of blue-fronted parrots. We had great views of both of these species before finding a male and female pampas deer very close to the road. On the shore of a salina we came to a neotropical cormorant roosting tree, there was a couple of cormorants in the tree but along with these 'lazy' cormorants was a pair of plumbeous kites, a yellow-headed caracara and a lesser yellow-headed vulture all perched and waiting for the sun to come out and then they can begin hunting or scavenging. Thanks to the storm last night the wet sand was very good for tracks and this morning we found fresh puma tracks as we approached a field and had great views of a pair of red-legged seriema as well as red-and-green macaws once again coming out of the nest hole in the old manduvi tree. A little light rain came down as we drove some way along the corridor and came across a giant armadillo hole. Fresh claw marks, loose sand and impressions of the armadillo's armour plating on the sand all indications that the giant armadillo had recently been here and with all of the signs pointing towards the hole and none leaving. It was very evident that the armadillo was still inside the hole. We didn't have the time to stake it out though and with giant armadillos being exclusively nocturnal we wouldn't see it emerge today anyway. So we left the hole and along the sandy corridor we found many animal tracks including puma, tapir, feral pig, giant anteater, peccary, giant armadillo and ocelot. As we approached the lodge a huge flock of snail kites flew over us, a little in the distance another cloud of kites took to the air. There must have been over 100 snail kites within view and this looked more like they were getting ready for a migration than they were flocking to a food source. On the drainage field we had great close up views of guira cuckoos before collecting the camera traps and heading back to the lodge to pack and get ready for our flight back to Campo Grande. When checking the camera traps the range of wildlife we captured was incredible, between the two cameras (with the one behind the lodge being far more productive in terms of diversity) we had both white-lipped and collared peccaries, pampas deer, brown-brocket deer, Brazilian tapir, bare-faced curassows, giant tegu, feral pigs, Azara's agoutis, lowland pacas and crab-eating foxes. On the camera trap we set up along the trail we walked one day we did get the male puma, the one that had made the scrapes we saw. A great clip showing him walking towards the lodge along the fence line. It just goes to show the wealth of life there is around here when this many species of captured using the same pathways in only 5 days. We then packed and had lunch before heading to the air strip at 13:30. After saying our good byes to Stefan, Matt and Maneola and flew south-east over the Pantanal towards the distant hills and the city of Campo Grande. The views out over the different lodges are a reminder that whilst many of the farm owners around Embiara are environmentally minded and keep their forests intact not all do. There are many intensive cattle ranches between Embiara and Campo Grande the different in vegetation cover was stark. One of the main problems being that the Brazilian government gives tax breaks for more productive ranches, meaning that if you don't have lots of cattle and run your farm solely as a cattle ranch the taxation can be too much to keep a small farm and lodge operational. Another problem is the initiative of only keeping 20% of your land was original vegetation. There were no stipulations that this had to be prime forest or even continuous forest and you see large fields mostly cleared for pasture with narrow bands of forest running parallel to each other. This is an example of a farmer getting around the 20% rule by using a tractor or another piece of heavy machinery to clear 4 lines and leave the fifth one free, so keeping 20% forested but in a way that is easy and cheap to manage, allows maximum grazing for cattle and provides the wildlife with a very small amount of forest that is not continuous with other forested areas. For now the Pantanal is still mostly wild, remote and home to huge numbers of animals (including an estimated 6,000 jaguars) but the future could well see a change in this if development and bad agricultural practises are allowed to continue unabated and in many cases promoted by the national and local governments. However during the hour long flight we saw many flocks of birds, the white egrets and jabirus standing out the most, as well as capybara and even a tapir standing proud in a lake; we also had some turkey and lesser-yellow headed vultures soaring around us before we came to land at Campo Grande



airport. At one point the rain came down very strong and the visibility was reduced due to this, however the pilots are used to the rain here and we were safely taken to the airport, where we got the flight back to Cuiaba and from there we met by Ailton there and taken to the hotel for dinner and our last night on the tour.

Day 16 Home

Departure

This morning Roy and Lee were transferred to the airport in time to catch their afternoon flight back to Sao Paulo and onwards to the UK. Martin and Kate departed later in the afternoon.

Species List

Pantanal Exploration / Sep - Oct 2013

Mammals (* = heard or signs only)

	Common Name	Binominal Name
1	Black howler monkey	<i>Alouatta fusca</i>
2	Marsh deer	<i>Blastocerus dichotomus</i>
3	Crab-eating fox	<i>Cerdocyon thous</i>
4	Maned wolf	<i>Chrysocyon brachyurus</i>
5	Azara's agouti	<i>Dasyprocta azarae</i>
6	Nine-banded armadillo	<i>Dasytus novemcinctus</i>
7	Brazilian big-brown bat	<i>Eptesicus brasiliensis</i>
8	Yellow armadillo	<i>Euphractus sexcinctus</i>
9	Capybara	<i>Hydrochaeris hydrochaeris</i>
10	Ocelot	<i>Leopardus pardalis</i>
11	Neotropical otter	<i>Lontra longicaudis</i>
12	Red brocket deer	<i>Mazama americana</i>
13	Brown brocket deer	<i>Mazama gouazoubira</i>
14	Black-tailed marmoset	<i>Mico melanura</i>
15	Black myotis	<i>Myotis nigricans</i>
16	Giant anteater	<i>Myrmecophaga tridactyla</i>
17	South American coati	<i>Nasua nasua</i>
18	Lesser bulldog bat	<i>Noctilio albiventris</i>
19	Greater bulldog bat	<i>Noctilio leporinus</i>
21	Pampas deer	<i>Ozotoceros bezoarticus</i>
21	Jaguar	<i>Panthera onca</i>
22	Collared peccary	<i>Pecari tajacu</i>
23	Greater dog-like bat	<i>Peropteryx kappleri</i>
24	Common gray four-eyed opossum	<i>Philander opossum</i>
25	Giant armadillo	<i>Priodontes maximus</i>
26	Giant otter	<i>Pteronura brasiliensis</i>
27	Puma	<i>Puma concolor</i>
28	Proboscis bat	<i>Rhynchonycteris naso</i>
29	Azara's capuchin	<i>Sapajus cay</i>
30	Feral pig	<i>Sus scrofa</i>

SEPTEMBER				OCTOBER										
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	27						~20	7	20	9	32	18	22	8

31	Brazilian tapir	<i>Tapirus terrestris</i>
33	White-lipped peccary	<i>Tayassu pecari</i>

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								19	47	62	19	~100	28	12

Birds (* = heard or signs only)

	Common Name	Binominal Name
1	Blue-throated piping guan	<i>Aburria cumanensis</i>
2	Spotted sandpiper	<i>Actitis macularius</i>
3	Bay-winged cowbird	<i>Agelaioides badius</i>
4	Unicoloured blackbird	<i>Agelasticus cyanopus</i>
5	Yellow-faced parrot	<i>Alipiopsitta xanthops</i>
6	Glittering-throated emerald	<i>Amazilia fimbriata</i>
7	Blue-fronted parrot	<i>Amazona aestiva</i>
8	Brazilian teal	<i>Amazonetta brasiliensis</i>
9	Scarlet-headed blackbird	<i>Amblyramphus holosericeus</i>
10	Southern screamer	<i>Anhima cornuta</i>
11	Anhinga	<i>Anhinga anhinga</i>
12	Hyacinth macaw	<i>Anodorhynchus hyacinthinus</i>
13	Yellowish pipit	<i>Anthus lutescens</i>
14	Helmeted manakin	<i>Antilophia galeata</i>
15	Blue-and-yellow macaw	<i>Ara ararauna</i>
16	Red-and-green macaw	<i>Ara chloropterus</i>
17	Grey-necked wood-rail	<i>Aramides cajanea</i>
18	Limpkin	<i>Aramus guarauna</i>
19	Blue-crowned parakeet	<i>Aratinga acuticaudata</i>
20	Peach-fronted parakeet	<i>Aratinga aurea</i>
21	White-eyed parakeet	<i>Aratinga leucophthalma</i>
22	Great egret	<i>Ardea alba</i>
23	Cocoi heron	<i>Ardea cocoi</i>
24	White-headed marsh-tyrant	<i>Arundinicola leucocephala</i>
25	Burrowing owl	<i>Athene cunicularia</i>
26	Yellow-chevroned parakeet	<i>Brotogeris chiriri</i>
27	Great-horned owl	<i>Bubo virginianus</i>
28	Cattle egret	<i>Bubulcus ibis</i>
29	Zone-tailed hawk	<i>Buteo albonotatus</i>
30	Black-collared hawk	<i>Buteogallus nigricollis</i>

SEPTEMBER				OCTOBER										
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	4		15	43	1	~45	~10				4		8	
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31	Great black hawk	<i>Buteogallus urubitinga</i>
32	Striated heron	<i>Butorides striata</i>
33	Yellow-rumped cacique	<i>Cacicus cela</i>
34	Muscovy duck	<i>Cairina moschata</i>
35	Green-barred woodpecker	<i>Caloptes melanochloros</i>
36	Crimson-crested woodpecker	<i>Campephilus melanoleucos</i>
37	Thrush-like-wren	<i>Campylorhynchus turdinus</i>
38	Southern crested-caracara	<i>Caracara plancus</i>
39	Spot-tailed nightjar	<i>Caprimulgus maculicaudus</i>
40	Red-legged seriema	<i>Cariama cristata</i>
41	Rufous casiornis	<i>Casiornis rufus</i>
42	Turkey vulture	<i>Cathartes aura</i>
43	Lesser yellow-headed vulture	<i>Cathartes burrovianus</i>
44	Cream-coloured woodpecker	<i>Celeus flavus</i>
45	Pale-crested woodpecker	<i>Celeus lugubris</i>
46	Collared plover	<i>Charadrius collaris</i>
47	American pygmy kingfisher	<i>Chloroceryle aenea</i>
48	Amazon kingfisher	<i>Chloroceryle amazona</i>
49	Green kingfisher	<i>Chloroceryle americana</i>
50	Green-and-rufous kingfisher	<i>Chloroceryle inda</i>
51	Maguari stork	<i>Ciconia maguari</i>
52	Little cuckoo	<i>Coccyzua minuta</i>
53	Dark-billed cuckoo	<i>Coccyzus melacoryphus</i>
54	Boat-billed heron	<i>Cochlearius cochlearius</i>
55	Feral pigeon	<i>Columba livia</i>
56	Plain-breasted ground dove	<i>Columbina minuta</i>
57	Picui ground dove	<i>Columbina picui</i>
58	Scaled dove	<i>Columbina squammata</i>
59	Ruddy ground-dove	<i>Columbina talpacoti</i>
60	Tropical peewee	<i>Contopus cinereus</i>
61	Black vulture	<i>Coragyps atratus</i>
62	Red pileated finch	<i>Coryphospingus cucullatus</i>
63	Coscoroba swan	<i>Coscoroba coscoroba</i>
64	Pale-crested spinetail	<i>Cranioleuca vulpecula</i>
65	Bare-faced currawong	<i>Crax fasciolata</i>
66	Smooth-billed ani	<i>Crotophaga ani</i>
67	Greater ani	<i>Crotophaga major</i>
68	Undulated tinamou	<i>Crypturellus undulatus</i>

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		*	*	*	1	*			3	*	*	2	*	

69	Plush-crested jay	<i>Cyanocorax chrysops</i>
70	Purplish jay	<i>Cyanocorax cyanomedas</i>
71	Rufous-browed peppershrike	<i>Cyclarhis gujanensis</i>
72	Black-bellied whistling duck	<i>Dendrocygna autumnalis</i>
73	White-faced whistling duck	<i>Dendrocygna viduata</i>
74	Straight-billed woodcreeper	<i>Dendroplex picus</i>
75	Red-shouldered macaw	<i>Diopsittaca nobilis</i>
76	Black-capped donacobia	<i>Donacobius atricapilla</i>
77	Lineated woodpecker	<i>Dryocopus lienatus</i>
78	Little blue heron	<i>Egretta caerulea</i>
79	Snowy egret	<i>Egretta thula</i>
80	Swallow-tailed kite	<i>Elanoides forficatus</i>
81	White-tailed kite	<i>Elanus leucurus</i>
82	Purple-throated euphonia	<i>Euphonia chlorotica</i>
83	Sunbittern	<i>Eurypyga helias</i>
84	Bat falcon	<i>Falco ruficularis</i>
85	American kestrel	<i>Falco sparverius</i>
86	Black-backed water-tyrant	<i>Fluvicola albiventer</i>
87	Pale-legged hornero	<i>Furnarius leucopous</i>
88	Rufous hornero	<i>Furnarius rufus</i>
89	Rufous-tailed jacamar	<i>Gallbula ruficauda</i>
90	Crane hawk	<i>Geranospiza caerulescens</i>
91	Chopi blackbird	<i>Gnorimopsar chopi</i>
92	Guira cuckoo	<i>Guira guira</i>
93	Sungrebe	<i>Heliornis fulica</i>
94	Laughing flacon	<i>Herpetotheres cachinnans</i>
95	Savanna hawk	<i>Heterospizias meridonalis</i>
96	White-backed stilt	<i>Himantopus nimantopus</i>
97	Gilded sapphire	<i>Hylocharis chrysura</i>
98	Epaulet oriole	<i>Icterus cayanensis</i>
99	Orange-backed troupial	<i>Icterus croconatus</i>
100	Plumbeous kite	<i>Ictinia plumbea</i>
101	Jabiru	<i>Jabiru mycteria</i>
102	Wattled jacana	<i>Jacana jacana</i>
103	Piratic flycatcher	<i>Legatus leucophaeus</i>
104	Narrow-billed woodcreeper	<i>Lepidocolaptes angustirostris</i>
105	Grey-fronted dove	<i>Leptotila rufaxilla</i>
106	White-tipped dove	<i>Leptotila verreauxi</i>

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	2	9	2	6	3	8				1	15			
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	16						13	9	19	~30	~20	~200	~120	2
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	1												1	
	12							23	~25	73	~20	~20	~20	~30

107	Cattle tyrant	<i>Machetornis rixosa</i>
108	Ringed kingfisher	<i>Megaceryle torquata</i>
109	Boat-billed flycatcher	<i>Megarynchus pitangua</i>
110	Tropical screech owl	<i>Megascops choliba</i>
111	White woodpecker	<i>Melanerpes candidus</i>
112	Green ibis	<i>Mesembrinibis cayennensis</i>
113	Yellow-headed caracara	<i>Milvago chimachima</i>
114	Chalk-browed mockingbird	<i>Mimus saturninus</i>
115	Shiny cowbird	<i>Molothrus bonariensis</i>
116	Giant cowbird	<i>Molothrus oryzivorus</i>
117	Blue-crowned motmot	<i>Momotus momota</i>
118	Black-fronted nunbird	<i>Monasa nigrifrons</i>
119	Wood stork	<i>Mycteria americana</i>
120	Brown-crested flycatcher	<i>Myiarchus tyrannulus</i>
121	Streaked flycatcher	<i>Myiodynastes maculatus</i>
122	Monk parakeet	<i>Myiopsitta monachus</i>
123	Nanday parakeet	<i>Nandayus nenday</i>
124	Great potoo	<i>Nyctibius grandis</i>
125	Common potoo	<i>Nyctibius griseus</i>
126	Black-crowned night-heron	<i>Nycticorax nycticorax</i>
127	Common pauraque	<i>Nyctidormus albicollis</i>
128	Band-tailed nightjar	<i>Nyctiprogne leucopyga</i>
129	Chaco chachalaca	<i>Ortalis canicollis</i>
130	Osprey	<i>Pandion haliaetus</i>
131	Yellow-billed cardinal	<i>Paroaria capitata</i>
132	Red-crested cardinal	<i>Paroaria coronata</i>
133	House sparrow	<i>Passer domesticus</i>
134	Pale-vented dove	<i>Patagioenas cayennensis</i>
135	Picazuro pigeon	<i>Patagioenas picaxuro</i>
136	Planalto hermit	<i>Phaethornis pretrei</i>
137	Large-billed tern	<i>Phaetusa simplex</i>
138	Greater thornbird	<i>Phacellodomus ruber</i>
139	Neotropical cormorant	<i>Phalacrocorax brasilianus</i>
140	Moustached wren	<i>Pheugopedius genibarbis</i>
141	Lesser kiskadee	<i>Philohydor lictor</i>
142	Bare-faced ibis	<i>Phimosus infiscatus</i>
143	Squirrel cuckoo	<i>Piaya cayana</i>
144	Capped heron	<i>Pilherodius pileatus</i>

	1	5		12		8		2		1				2
	7	15	11	13	3	7	2		1	4	9	1		
	2	2	1	4	3	3	2							
							1							
						1			2					
	7	1			3		8		~80	2			2	2
									8	1				2
	1													
	~25				1		6							
	1				2					4	1	5	31	1
											1	1		
		1			2	1								
	~25						126						~30	
												1		1
													1	
	2	7	2	7	15	3	6		~20				4	
			2				4	13						
									1	5				1
							1							
		2		1						3				
			2			1				3	3	1	3	
	63	~30	~55		~20	~10								
	1	7	4	6	8	7	16	15	16	23	18	18	28	29
			1	1	1	1								
	~92	29	~70	3	16	26	~140	2		1	14			
	1													
2	~10													
	7	3	7	3	6	8		4						
	3	1	8		1		2	~60		6			5	2
			1											
	4	3			1	1	11		1		2			
		*												
	7	17	14	5	46	56	5		11	2	1	6	7	1
										1				
	~40	71	94	54	38	55	3		2	6	12	5		9
					5	3	26	66	~100	10	27	63	~100	30
				1		3	1			2	1			
	8	6	3	5	5	3	7							

183	Solitary sandpiper	<i>Tringa solitaria</i>
184	Blue-crowned trogon	<i>Trogon curucui</i>
185	Rufous-bellied thrush	<i>Turdus rufiventris</i>
186	White-throated kingbird	<i>Tyrannus albogularis</i>
187	Tropical kingbird	<i>Tyrannus melancholicus</i>
188	Fork-tailed flycatcher	<i>Tyrannus savanna</i>
189	Eastern kingbird	<i>Tyrannus tyrannus</i>
190	Pied lapwing	<i>Vanellus cayanus</i>
191	Southern lapwing	<i>Vanellus chilensis</i>
192	Great-rufous woodcreeper	<i>Xiphocolaptes major</i>
193	Eared dove	<i>Zenaida auriculata</i>

	4			3			2	1	2	~15	~10	~60	23		
	1			1					1					6	
	1														
			12	1											
		2	4				5								
				3			12	4	2		~50			6	
													1		
			1	2			1				7	16			
	13	3		2				38	35	24	13	88	33	35	6
													2	1	
									~10		~10		~10		

Reptiles (* = heard or signs only)

	Common Name	Binominal Name
1	Amazon racerunner	<i>Ameiva ameiva</i>
2	Yacre caiman	<i>Caiman yacare</i>
3	Yellow anaconda	<i>Eunectes notaeus</i>
4	Tropical house gecko	<i>Hemidactylus mabouia</i>
5	Green iguana	<i>Iguana iguana</i>
6	Parrot snake	<i>Leptophis ahaetulla</i>
7		<i>Mabuya nigropunctata</i>
8	Point-nosed false chameleon	<i>Polychrus acutirostris</i>
9	Eastern Collared Spiny Lizard	<i>Tropidurus torquatus</i>
10	Giant tegu	<i>Tupinambis meriamea</i>
11	Golden tegu	<i>Tupinambis teguixin</i>

SEPTEMBER				OCTOBER										
27	28	29	30	1	2	3	4	5	6	7	8	9	10	11
					1				1					
	1,000's	~100	~100	100's	100's	100's	1,000's	1	4	33	22	3	4	8
	1						*							
								1						
	2	6				2	1							
												1		
												1		
										2				
									1			5		
							1			*	1	1	1	
	1					1	4							

Amphibians (* = heard or signs only)

	Common Name	Binominal Name
1	Cane toad	<i>Bufo marinus</i>
2	Quacking treefrog	<i>Hyla lanciformis</i>
3		<i>Leptodactylus fuscus</i>
4		<i>Lysapsus limellum</i>

SEPTEMBER				OCTOBER										
27	28	29	30	1	2	3	4	5	6	7	8	9	10	11
											1			
		1							2	1				
												1		
												~10		

5		<i>Physalaemus albonotatus</i>
6	Lesser-snouted tree frog	<i>Scinax nasicus</i>
8	Veined tree frog	<i>Trachycephalus venulosus</i>

															1
									1						
					1										

Freshwater Fish (* = heard or signs only)

	Common Name	Binominal Name
1	Three-striped apisto	<i>Apistogramma trifasciata</i>
2	Two-spot astyanax	<i>Astyanax bimaculatus</i>
3	Piraputanga	<i>Brycon microlepis</i>
4	Serpea tetra	<i>Hyphessobrycon eques</i>
5	Acari	<i>Hypostomus plecostomus</i>
6	Cascudo	<i>Liposarcus anisitsi</i>
7	Pacu	<i>Piaractus mesopotamicus</i>
8	Ocellated river stingray	<i>Potomotyrgon motoro</i>
9	Spotted sorubim	<i>Pseudoplatystoma corruscans</i>
10	Barred sorubim	<i>Pseudoplatystoma fasciatum</i>
11	Red-bellied piranha	<i>Pygocentrus nattereri</i>
12	Spotted piranha	<i>Serrasalma marginatus</i>

SEPTEMBER				OCTOBER										
27	28	29	30	1	2	3	4	5	6	7	8	9	10	11
													~35	
												1		
					2							~100		
												4		
		1										1		
		3	2		1									
			2		1									
											*			
			3		2									
					1									
			11											
			2											

Notable Invertebrates (* = heard or signs only)

	Common Name	Binominal Name
1	Leaf-cutter ants	<i>Atta spp.</i>
2	Marimbondo wasp	<i>Auplopus spp.</i>
3	Scarlet dragonfly	<i>Diastatops pullata</i>
4	Brown huntsman spider	<i>Heteropoda venatoria</i>
5	Brazilian red-and-white tarantula	<i>Nhandu chromatus</i>
6	Cloudless sulphur butterfly	<i>Phoebis sennae</i>

SEPTEMBER				OCTOBER										
27	28	29	30	1	2	3	4	5	6	7	8	9	10	11
									100's	100's		100's		
									1		1	2	1	
		2	3	1	3	2				2				
										2		1	1	
													1	
	3		2						2	3				