



EXPEDITION DIARY Peru 2009

By Andy Stronach

31 October

Hello there. This is the first diary entry for the Biosphere Expeditions 2009 expedition to Peru and I am Andrew Stronach, your expedition leader.

I have now left my home in Scotland and am travelling via London, Miami and Lima and am heading for Puerto Maldonado in south-east Peru, our expedition assembly point. I have already prepared all my personal kit; I have heard it is quite wet at our expedition site this year, so am glad I have all my dry bags, sealable plastic boxes and silica gel to keep my camera kit dry ;)

I look forward to meeting you all soon and getting stuck into the survey work in our fantastic research area. If I get the time, I'll also write with another update from Puerto Maldonado before I disappear upriver. My mobile number in Peru is +51 (82) 982781440, but obviously this only works when I am in town.

Safe travels & see you soon.

7 November

Well, so far on the expedition I've seen beautiful night monkeys, sapphire spangled emeralds – hummingbirds, and yes their name is appropriate, three toed sloth, the more rare two toed sloth, an agouti, wonderfully marked green lizards, tree frogs and a host of birds; the thing is, that's only at the hotel I'm staying at :-)

I've spent the last few days printing datasheets, laminating anything that stayed still for more than a few seconds, buying medicines, liaising with people and making sure everything is organized at our research centre. All done.

Last night, I met Monique, Mary and Simon at Wasai; that was great, though they did just miss the night monkeys. I look forward to meeting everyone else; I will be in Wasai reception tonight (Saturday) at 1900 when I will brief everyone who wants to come along about the plans for going upriver to base (departing Wasai at 0700 after a light breakfast at 0630). Afterwards, if you would like, we can all go for dinner together.

8 November - Puerto Maldonado to Piedras Biodiversity Station

After a lovely breakfast at Wasai hotel, we, along with our modest mountain of luggage, a cooler box full of meat and dreams of jaguar sightings to come we loaded the bus and set off. Twenty minutes later we arrived at Puerto Arturo where we transferred our belongings to a longboat for the trip upriver; we also transferred an innocent bystander's crate of Coke to our boat, but she noticed so we gave it back to her :) Having crossed the Madre de Dios River, we turned north and whilst dodging logs drifting downriver, we entered the Piedras river on which we travelled for the rest of the day.

On the lower part of the river, there were small farms along the bank, but these thinned out as we moved further upstream. Every so often, we stopped for a loo break at a convenient beach; at one such stop, Mary skillfully managed to seek out the only bit of (very deep!) mud in the area, however, Tom did his very convincing 'knight in shining armour' impersonation and saved the day.

Last stop on the way was the very small community of Sabalouyo – two houses and one shop where there were biscuits and biscuits for sale; we decided to buy some biscuits. There was a lovely little dog there who was very skinny; when we left, he was not nearly so skinny; when we left, he clearly wanted to come with us; when we left, there was a considerable proportion of the team in favour of a bit of dognapping.

The wildlife on the way was fantastic and got better as we moved upriver. There was a large group of colourful Hoatzin birds perched in trees on the riverbank. Turtles dried themselves in the sun on top of logs. Butterflies of yellow, white and orange flew in great clouds over special parts of the bank. A big spectacled caiman of about 2 m ate a big catfish at the water's edge. We were very lucky to see two female red howler monkeys with two babies eating clay at a riverbank colpa as well as many parakeets on another colpa.

We arrived at Piedras Biodiversity Research Station in the late afternoon so that we just had time to carry our bags from the boat to the station, drink some of the lovely refresco that Gloria our cook had waiting for us, unpack, do the grand tour and get settled in before it got dark :) It's good to be back.

9 November - First training day

After a health and safety briefing, we learned how to use the trail maps, GPS, compass, machete, rangefinders, telescopes, binoculars and tripods. Later we split into two teams and went for an orientation walk. Cathy, Anja, Simon, Mike, Tom, Aldo and I went round the waterfall circuit noting hazards such as spiky palms on the way and practicing some of the navigation techniques we learned earlier. We saw a large group of brown capuchin monkeys high above us; lovely. After lunch, Alan, our scientist gave us a talk on mammal identification, followed by macaw clay lick survey methodology and lastly, parrot identification.

10 November - Second training day

Early in the morning, Monique, Mary, Helge, Paul and Tom went to the macaw clay lick with Alan to put into practice yesterday's training. Near the macaw colpa, there is a large sandy beach and to everyone's delight, on that beach there were very clear tracks of jaguar – that elusive and beautiful animal that many people crave to see in the wild. At the same time, Cathy, Anja, Mike, Simon, Markus, Bernhard and Aldo went with me to mammal transect A to practice surveying mammals; eagle-eyed Markus spotted a group of red howler monkeys, which were great to watch – it looked like they were quite enjoying watching us too. Mid-morning the two groups swapped tasks and headed out again. On the return from the macaw clay lick, eagle-eyed Markus struck again, spotting a three-toed sloth swimming the river; these animals are not the best swimmers, so Alan scoped it out of the water and gave it a free ride to the other side of the river – a fantastic and very rare sighting and everyone was very pleased with themselves. Walter (our boat handler) never thought to tell us about the jaguar he had seen just a little earlier! Meanwhile, on the mammal training transect, the mammals were a bit thin on the ground, so I disappeared off into the forest so the group had something to work with; not sure how that went, but it certainly entertained everyone :)

In the afternoon, Anja, Helge, Markus and Alan cleared A transect of fallen branches etc so that we will be able to sneak around quietly whilst doing the mammal transect surveys and see more animals. Aldo, Walter, Bernhard and I went to the macaw colpa and made a hide from where we will carry out our behavioural study observations; excellent team work getting the job done quickly.

11 November - The work begins....

Simon, Markus and I went off trail into the forest, searching for new colpa for Alan's study, as well as for macaw nests and parrot foraging events. The going was varied, being quite easy under closed canopy and quite close to impossible where the canopy was broken due to tree fall, letting in light and causing an explosion of tangled growth. A few times the path of least resistance was a stream; you either get soaked with sweat or with stream water – doesn't really matter which :) Somewhat surprisingly for me, we actually succeeded in finding a previously unknown colpa, though it was not regularly used.

Around the location of the only known mammal colpa at Piedras Biodiversity Station, Alan, Cathy, Mike and Bernhard started to make a matrix of trap traps. A track trap is a 1 m square area of ground, cleared of vegetation, roots, rocks, etc. so that only soft ground remains. Whenever animals stand on the track trap, they leave an impression of their feet - fairly clear tracks that can then be identified on checking. This task turned out to be somewhat more demanding and time consuming than anticipated.....

12 November

Today, we continued work on the colpa matrix, cutting small trails, measuring the trail lengths and making the track traps. Whilst crossing a small stream, I noticed a dead toucan in the water, it had not been dead for long, perhaps one day; it was amazing to see the detail of its huge colourful bill (right red inside) and its lovely feathers. I took it back to the station for the others to see.

Whilst JJ had been out, he had made a great find too, a massive red-tailed boa constrictor. Its body was almost the thickness of my leg, its head looked very business like and its tail was, unsurprisingly I suppose, a fantastic deep ochre red colour.

Daylight to no light takes little time in the tropics, and once it is dark, with a clear sky, the stars are wonderful – millions of them.

13 November

Tom headed out with Alan at dawn to survey transect A for mammals; seven hours later, transect A was completely surveyed and Tom was completely ready to spend the rest of the day horizontal in a hammock :)

Aldo, Mike, Anja, Markus and I went to the colpa matrix to continue the work setting it up; Simon managed to evade the work with some concocted tale about being sick after drinking water and then later realizing it was because he had taken his anti-malaria drugs on an empty stomach – very creative.... Everyone worked hard and by the time we headed back for lunch, with almost all of the work complete; finished off by Anja and Alan in the afternoon.

At the late shift at the macaw colpa, Helge said he had his most spectacular wildlife experience of his life – over a hundred red-and-green macaws. That says a lot for Piedras, coming as it does, from a professional photographer who dedicates a large part of his career to wildlife in many remote and fantastic places around the globe.

At lunchtime, JJ produced another snake, this time a yellow-tailed cribo perhaps 2m long, and fast, very fast.

In the afternoon, I went with Mike, Simon, Markus and Aldo to repair the macaw hide that had suffered some 'modification' as a result of some particularly heavy rainfall - that and my less than perfect design perhaps. Aldo seemed to find much to laugh about whilst we worked; I don't know why, but there did seem to be a very strong correlation between Simon or Mike picking up a machete and Aldo rolling around in hysterics:) However, when we had finished, we left behind a hide guaranteed to withstand anything the rainforest could possibly throw at it; wonder if it will still be standing tomorrow!

Dinner time provided yet another wildlife spectacle as hundreds of flying termites descended on the table, along with a variety of grasshoppers, beetles, cicadas and moths - never a dull moment here. As has become the norm, Helge produced yet another camera from yet another pocket and captured the dinner table ecosystem for posterity.

14 November

Up at 04:20 and along with Monique and Simon I went to the macaw hide, which was looking indestructible and even better, it was still the right way up. After only a few minutes, mealy parrots started arriving; they were a beautiful powdery green with yellow tail and red in the wings. With their short, strong wings they are fast and strong fliers, announcing their presence with loud raucous calls. Next to arrive were the blue-headed parrots, the dusky-headed parakeets and then a single orange-cheeked parrot. It was much later that the even more spectacular red-and-green macaws arrived. First these birds land in the tops of the trees above the clay lick where they have a snooze, enjoy the view or catch up on the latest gossip from their pals. Eventually, they work their way down the trees till they are very close to the clay where one brave soul takes the decision to be the first onto the clay. Once this has been done, everyone else follows and the brown clay becomes a fantastic coloured sea of vivid blues and reds – amazing. Occasionally, a small local boat passes, this invariably causes a 'flush' where all the macaws fly from the colpa at the same time – always a wonderful and truly amazing spectacle when there are a hundred birds flying together.

14 November – continued.....

So, Simon and Aldo return from their night transect at about 23:00 with all sorts of tall tales. First there was a scorpion, next a coral snake and lastly jaguar, not one but two! They were not seen, but they were heard playing together about 20 m off the trail: Aldo decided it was time to end the survey.

15 November - day off

The morning got off to a great start with a group of dusky titi monkeys calling only 20 m behind the lodge; I got my camera and with a little persistence got some lovely shots. Next were the humming birds, which were visiting the implausibly designed heliconia flowers of red and yellow. These little birds had a few of us racing around the lodge trying to get photos of them, with variable success. Cathy, Mike, Mary and Tom went to the macaw colpa early; I'm sure I said they could have the day off and as well as the riot of red-and-green macaws, they were lucky to see six spectacular orange-cheeked parrots. After a late breakfast, Mary, Tom, Helge and I walked the waterfall loop trail at a leisurely pace, looking at the trees, ferns, insects, birds and mammals; most of which Helge photographed.

16 November

Mary, Paul and Simon had an interesting early shift on the macaw colpa with dusky titi monkeys above the colpa frightening away the macaws. Tom and I went exploring, looking for a spider monkey that JJ had a little info about – just a rough location, so off we went. The forest vegetation was quite thick so we followed a stream, sometimes up to our thighs in water. We found a few different tracks of red brocket deer, no sign of the colpa, but we had a fun time anyway.

Alan and Helge completed a night transect and were very lucky to find five snakes, all different species; a beautiful multi-coloured rainbow boa, Amazon tree boa, two species of blunt nosed tree snake, and a false coral snake with its bands of red, black and white.

17 November

Cathy, Mary, Helge, Aldo and Simon completed a mammoth survey of transect A, leaving at 05:00 and getting back for a well earned lunch at 13:00. The rewards for the effort were great though; dusky titi monkeys, spider monkeys, brown capuchin Monkeys and saddleback tamarin monkeys. At one point, they also found a jaguar scrape, but sadly, no sightings of the beautiful animal itself. Last, but certainly not least, a green swamp snake, which flattened its neck, cobra like, to make itself look bigger – fantastic.

After lunch, Alan, Eric, Mike, Markus and I went to check the track traps at the matrix around the mammal colpa. Heavy rain quickly obliterates any animal tracks in the traps and we have been getting a little bit of rain lately..... All the tracks we saw in the traps were therefore no more than a day old, and even they had had some rain on them. About 30 min after we arrived, they got some more rain on them too – oh well. We were able to discern tracks from agouti, tortoise, nine-banded armadillo, grey-brocket deer and white-lipped peccary.

In the evening, after dinner, we all got into our boat and headed upriver to look for caiman. We looked for beaches along the river's edge where caiman are found. Unfortunately, the river was quite high and there were no beaches! Four species of caiman can be found in the area, but during our search, we only found one individual, however it was the rarest – the smooth fronted. With its dark and light striped tail and perhaps about 1.5 m long, this is the largest this species of reptiles grows. We did get a very good look at the caiman though as we got very close to it – excellent! Returning downriver, we switched off the boat's engine and drifted silently in the dark with our torches off under a sky full of stars with the silhouettes of the trees on the rivers edge.

18 November

Paul and I went to check an area on C transect to see if it would be suitable as a control area for a matrix of track traps. After a 2 km walk on which we saw a fresh jaguar scrape, we arrived at a small stream that we followed South. We found fresh tracks of tapier, red brocket deer and agouti. The find of the day, however, was a resting place in the stream bank of a neotropical otter, as far as I know, never before recorded at Piedras. A little further downstream, we found what appeared to be a tiny colpa in the bank of the stream with fresh signs of use.

Meanwhile, Cathy, Mike and Alan had a great encounter with rarely sighted monk saki monkeys on transect C where they were foraging and eating fruit. Simon, Helge and Aldo reportedly had the perfect early shift at the macaw colpa. First there were 60 mealy parrots along with 20 blue-headed parrots. Later, a whopping 100 red-and-green macaws covered the colpa and surrounding trees - amazing. News of the avian spectacle obviously spread quickly as the hide was invaded by ants; doubtless there to see the macaws too :)

19 November

Cathy, Mike and I did the early shift at the macaw colpa, but the morning started off very misty; we were barely able to see across the river to the colpa for the first 30 min. Eventually, the mist cleared and mealy parrots, dusky-headed parakeets, orange-cheeked parrots and a grand total of one (!) red-and-green macaw went onto the clay to eat. However, very soon after, the birds flushed and there were no more on the clay all day and few in the trees. The highlight of the day for me was two bat falcons in the tree top above the colpa; it was a privilege to be able to be able to watch these fantastic birds for at least 15min :)

Paul, Helge and Alan made the long walk along transect A and found the remains of a freshly killed peccary, killed by a jaguar; a fantastic find and yet more tantalizing evidence of the presence of this all too elusive and enigmatic animal.

In the afternoon, Bernhard and Alan checked all of the colpa track trap matrix, finding fresh tracks of paca, agouti and many white lipped peccary.

This brings to an end the first slot of Biosphere Expeditions 2009 expedition to Peru. A very successful first slot with no time lost due to weather :) and much valuable data collected – many thanks for all your hard work and getting stuck in, even when things were difficult.

I will be staying at Piedras Biodiversity Research Station for the changeover between slot 1 and slot 2. Alan Lee, our expedition scientist will now take all slot 1 team members back to Puerto Maldonado on Friday 20 Nov 09. Slot 2 team members; Alan will be staying at Wasai Hotel and will meet you on Saturday night in reception at 19:00 for a short briefing about travel upriver and then dinner together at a restaurant if you like. Departure for the river journey will be 07:00 on Sunday morning 22 Nov 09 from Wasai hotel. I look forward to seeing you all at Piedras Biodiversity Research Station and spending the next two weeks in the rainforest with you.

22 November - team travel from Puerto Maldonado to Piedras

Whilst Alan is travelling from Puerto Maldonado to Piedras Biodiversity Research Station with Slot 2 team members, Anja, Gloria, Melissa, Angel and I stayed behind and have been preparing for the new team's arrival. Gloria, Melissa and Angel have been cleaning the Research Station from head to toe and Anja, under instructions from Alan has been cleaning transect C from start to finish, with a sweeping brush! When we carry out the mammal transect surveys, it is very important to move quietly so that we can see and record the animals before they hear us and disappear off into the forest before we even know they are there. Snapping twigs and crunchy leaves warn animals of our approach, but with Anja sweeping the whole 5 km of the transect, we will be much more able to sneak up on all sorts of animals before they detect us :)

The war between Alan and myself continues..... Alan thinks it should be compulsory for everyone to wear Wellington boots when out in the forest. He says they provide some protection against snake bite and keep your feet dry. I think all Wellington boots should be banned from existence. Jungle boots give far better grip on muddy ground so reducing the chances of a dangerous fall, provide spike protection in the sole, fit properly so that they do not cause blisters on the foot or broken skin around the top of the boot like Wellingtons can and, unlike Wellingtons that slap around on your leg, they are quiet. As it has been years since wearing Wellingtons, I thought I'd give them a go again with an open mind and walked along Anja's lovely clear transect, however, with the Wellingtons slapping around on my leg every animal within ½ a mile must have heard me coming and I heard a few of them disappear off into the forest as I approached – never again, back to my jungle boots!

All of the team members of slot 2 arrived at Piedras, unloaded the boat and got everything to the station in record time. We did the grand tour of the station, unpacked, settled in and even did the health and safety briefing all before the first of many lovely meals from Gloria and Melissa.

23 November - first training day

First today, we split into two groups and went for an orientation walk. Walking around the trails near to the station, we got used to navigating on the trails and we also had a look at some of the hazards of the forest such as tree roots that can be easy to trip over and spike covered palms. Lastly we looked at some of the ecology of the forest such as 'devils gardens' where ants live in symbiosis with a tree. In these 'gardens', the ants kill all plants around their host tree, thereby reducing pressure on their tree, in return, the tree provides a home for the ants.

Alan covered the theory of both mammal transect surveys and macaw behavioural surveys. On the practical side, we learnt how to use machetes, GPS, rangefinders, compass, trail maps, binoculars, telescopes, tripods and Marcello's camera traps. Both Laurence and Becs were very taken with all the gadgets; perhaps an on site gadget shop next year.....

24 November - second training day

Simon, Marcello and Angel headed off along the Brazil nut trail on a two day trip to set up track traps and camera traps on the trail leading to the Brazil nut farm and beyond. The Brazil nut farm, about 5 km from base, is no more than a hut where workers rest during the Brazil nut harvest; I have never been there. When our intrepid team reached the farm though, they found it was in very poor condition and full of all sorts of ants; this provided some motivation to get on and complete their two day task in one day, which they did – must have been Gloria's breakfast that gave them the energy!

Having covered all the theory yesterday, today we did the practical side of the training. Alan took half of the group to the macaw colpa to practice recording behavioural observations, whilst I took the other half of the group to one of our transects to practice recording observations of mammals, perched parrots and large-bodied birds. When carrying out mammal transect surveys, it is vital that you are as quiet as possible; with a large group like we had, that was pretty much impossible, especially as we occasionally needed to speak to clarify points about the methodology. Because of the sound we were making, we saw few animals (as expected), so in order for the team to have something to practice recording, I left the group and hid in the bushes making like an animal – something that everyone said came naturally to me. I also made an impression of a jaguar track in the sand on the trail that had everyone excited when they noticed it, everyone that is apart from Aldo our guide who was not that easily fooled, but who did struggle to stop bursting out into laughter. In the afternoon, we went to our trap track matrix to prepare the traps so that we can see if animals have walked across them. On the way back, we saw a big group of squirrel monkeys along with brown capuchin monkeys in the trees directly above the trail that we were on; we stayed and watched them for about 20 minutes, wonderful :)

25 November - slot 2 unleashed on the rainforest – if it moved we surveyed it :)

Today, I went with Angelina and Ricardo to check the suitability of an area for a new, second track trap matrix. We currently have one track trap matrix centred around a mammal colpa. Alan our scientist wants to find out if/how colpas influence the spatial distribution of jaguar and other animals; to do this we need a control matrix away from any colpa to compare data - this will be the purpose of matrix two. We followed a very meandering stream through the forest and found many tracks along its edge. Tracks of a dog, either bush dog or short-eared dog, both very rare. Five different trails of tapir, one of which was very fresh, only about 10 minutes old. Paca, agouti, agouchi and other rodent tracks were abundant. At one place we found a trail where you could see where an animal had dragged its body and tail along the ground, its foot impressions revealed it to be an otter, excellent. After hours of meandering along the stream, sometimes up to our thighs in water, we had gone a straight line distance of around 1.2 km! So I decided to leave the stream and cut directly through the forest to one of our trails and then back to the station for a well deserved lunch.

In the afternoon, Joss, Walter and I went to the macaw hide to upgrade the seating arrangements. We took with us a plank of wood, that if we had dropped it in the river, I'm sure it would have sunk. That was the heaviest piece of wood I have encountered in my entire life and I still have the dent marks in my shoulder where I was carrying it to prove it! After a bit of digging and chopping, the work was done and we were even lucky enough to see some dusky titi monkeys by the hide as we were working.

In the evening, Joss and Alan completed a very enjoyable night transect under a calm, clear and star filled sky. Many animals were encountered including olingo, bi-coloured porcupine, night monkeys, spiny rat, rice rat and no less than five different species of frogs.

26 November

Marcello and Ricardo headed off to the Brazil nut farm to make some more track traps and to check the ones already made; this went well and tracks of jaguar were found in three of the track traps :)

Six of the team were left to carry out the macaw behavioural survey whilst almost everyone else went to prepare the second track trap matrix. On the way out, we saw a group of white-bellied spider monkeys high in the trees – wonderful. On site, we split into two teams; with me, wielding machetes, were Angel and Erik, whilst Rosa and Laurence measured the length of the trails and marked the positions of the track traps. This all went very well and we finished in record time, though it was hard work. On the way back we, again, saw a big group of white-bellied spider monkeys in the trees directly above us; they were absolutely fantastic to watch, swinging around at speed apparently effortlessly. They would shake the branches, at one point covering us with a shower of buds and fine blossom. Often the monkeys would hang, only holding on with their long prehensile tails, their four limbs free.

Back at base, after the tiring machete work, I spent the afternoon carrying out a comprehensive hammock survey :) Rousing from my slumbers, I found myself in the middle of a camera club photo shoot, everyone getting every conceivable kind of group shots.

In the evening, we were treated to a spectacular display of forked lightning that for an instant turned night into day before rumbling back to darkness with ground shaking thunder.

27 November

Laurence and I went on a foraging walk, looking for feeding or nesting parrots/macaws. Just a little distance from base, we spotted a group of spider monkeys, which we followed for a little in the forest, howler monkeys called in the distance. Further along the trail, we stopped by a big ciba or capok tree where we were treated to fantastic close views of a white-throated toucan and a spix's guan. Next, we saw a small group of brown capuchin monkeys in some palms. Further, we were both amazed to find a second group of white-bellied spider monkeys and this time, they hung around, literally :) so that we were able to get some great photos. Eventually, after some time and realizing it would get dark soon, we headed back to base, but our wildlife encounters were not over yet. A large group of spix's guans hopped around in the trees above us, probably unaware of our presence in the failing light. And then, a third group of white-bellied spider monkeys, I couldn't believe our luck :) But still it was not over for us. On arriving back at the station, we were greeted by a big yellow footed tortoise at the front door; it's tough at Piedras :)

Becs, Helen and Aldo surveyed transect C and saw a group of howler monkeys - 2 males, 1 female and a baby. Later they saw 2 dusky titi monkeys but apparently, highlight of the walk was seeing a swamp snake eating a frog :(

Simon and Alan checked matrix one for tracks and found: green agouchy, armadillo, jaguar and ocelot – an excellent haul.

28 November

Avril had fun on the early shift at the macaw colpa, or rather getting to and from the colpa. As she set off the immortal words 'there's not much mud, I'll be fine in my sandals' were uttered. [Just as well I was not there, I would have had words at that point....] The accidents were not too serious, I suppose. The first slip was forward, whilst going uphill, a good, full-length flat-on-the-face type mishap. On hand were two knights in fairly shiny armour, in the shape of Joss and Pete who helped Avril up the slope. Mishap number two involved a very graceful backward manoeuvre that ended with Avril flat on her bum (in the middle of the mud again of course). Avril made it back to base all in one piece, though she did look like she had just gone 3 rounds in a mud wrestling competition and I've yet to see her sit down.....

Matt, Alan and I checked Matrix 2, the traps were set yesterday; we checked 28 of them and found the tracks of a pale-sided trumpeter and an armadillo; not so many. Whilst walking round the matrix, however, we did see a group of around 30 false vampire bats, about 30 cm wingspan flying through the trees very close to us – excellent!

Becs, Simon and Aldo did transect A early in the morning and got off to a good start with dusky titi monkeys, next was the rear end of a tapir – a particularly fine and rare sighting of this elusive relative of the horse. Next was a single male red howler monkey and sighting of the day (perhaps of the expedition) about 10 saki monkeys – fantastic.

After lunch, Marcello gave a short tai chi lesson and due to the rapturous applause (mostly from the audience rather than the participants it has to be said!) he also did a little capouera lesson; no serious injuries, so that was good too.

After dinner, Becs, Helen, Laurence and Joss headed off in a very intrepid fashion, for the mammal colpa hide. The plan was to spend the night there to see if any animals visited the colpa to eat clay. Tune in tomorrow to see what happened.....

29 November - day off

Our intrepid team of mammal colpa watchers arrived back in the morning having spent the entire night watching the colpa for animals visiting in the night. The mission turned out to be of somewhat limited success (a career in politics awaits me). However the team did succeed in capturing a photo of a particularly dangerous looking animal at the colpa; we have to confirm the identification, but provisionally, it was a *Panthera obscura* subspecies *Laurenceii muddyii*.

In the afternoon Becs, Walter, Matt, Ricardo and Aldo went off in the boat and Becs had her 'best day of the entire expedition'. Perhaps seeing the sky for the first time in a few days, after having been sheltered under the forest canopy, was more of a pleasure than expected. A bit of fishing was attempted, with variable success, however, Becs did catch her first ever fish. Next, a caiman was spotted on the shore and everyone got some nice photos, Walter then announced he was going to catch it, much to everyone's shock. From the boat, Walter threw a net over the caiman and then grabbed it under the throat. After having extricated the caiman from the net, it could be seen in all its glory, before being popped back into the water.

In the evening, after dinner, we all climbed aboard our boat and headed upriver in the dark. With our torches, we looked for the red eye shine of caiman. It was not long before we saw a pair of red eyes, but as we approached, they disappeared below the water. The same happened with the next pair. Our third sighting was much better, we slowly drifted up to the eyes that were on the shore and attached to a spectacled caiman just over a meter long. Obliging, it sat there for some time and we all got a good look at it. Next, we found a caiman up a tree – that turned out to be a nightjar!

30 November - Back to the graft (!)

Becs, Joss and Simon had a day to remember on the early macaw colpa shift. Loads of macaws and parrots, but far more exciting than that, was the invasion of the hide by a few many millions of army ants. First they appeared on the outside of the mosquito net, rising up like a dark malevolent curtain on all sides. Becs and Joss were ready to make a run for it, abandoning the hide before they were carried off and cut up into millions of tiny pieces. Simon on the other hand, was made of harder stuff (or was that he had been drinking harder stuff, hmmm, not sure) and said "it'll be fine", so they stayed. Next, the ant column marched through the hide itself, a constant stream of them. For 20 minutes, the river of ants steamed through the hide as our dedicated team clung to their telescope and continued to survey the macaws – outstanding dedication to duty in the face of overwhelming superiority in numbers. Our battle-hardened team were looking forward to being relieved at 0930, but the relief never arrived – had they fallen to the insect army? 1000 came and went, as did 1030. Fearing the worst, our team were about to send out a search party to look for survivors, just as they arrived. Apparently the boat's engine had got water in it, causing the delay.

Helen, Matt and Aldo did transect C early in the morning. On the return walk, they found a tree in fruit, probably mashonaste, but I was not just filled with fruit; monkeys too. There were squirrel monkeys and capuchin monkeys which are frequently found together, but there were also spider monkeys – wonderful. But the excitement was not over for our intrepid trio; Aldo gave the swimming signal to indicate there was a patch of mud ahead, Matt went first, then Aldo and finally Helen. This was where the days' preparations, or rather inadequate preparations, :-/ came into play..... Foolishy, Helen had set off into the rainforest wearing only 2 pairs of thick wooly socks with her wellies, instead of her normal 3 pairs – unbelievable. Helen went to take a step forward, but she was unaware of the very fine adhesive qualities of Peruvian rainforest mud (see NASA report "A solution to space shuttle insulation tiles breaking free on re-entry" dated 03 June 1998) and the mud had taken a liking to her wellies and had no intention of letting them go; result, Helen stuck, semi-dangling at a jaunty 45 degree angle, completely unable to move. Matt had disappeared around the corner, but Aldo was on hand. Being the consummate Peruvian gentleman, without a moment's hesitation he started to pee himself with laughter. Having composed himself a little, like a knight in only slightly muddy armour, he then raced to the rescue, taking Helen's camera and making sure it was safe. After only a few minutes, he remembered that Helen was still stuck, so went to help her as well. After a bit of heaving and puffing, Helen was free – yippee! But her Wellie was not, boo! So, now Helen was balancing in a sea of mud, only on one leg – not the best time to get a fit of the giggles.....

At least Aldo, who was supporting her was well composed; well, at least until Helen started giggling, then he was off too. After a few wobbles and near mud experiences, the two finally managed to extricate themselves and the errant wellie from the mire, making it back to safe dry ground and a happy reunion with the camera.

Wellies 0, Jungle boots 1 :)

In the afternoon, Avril, Paula and I went for walk on the waterfall loop trail and saw a tyra, at over 1 m this long black member of the mustelid family has a fantastic yellow head. Under normal circumstances it would have made the headlines for the day's diary entry, not much chance of that today.

1 December

Paula, Helen and Ricardo did the early shift at the macaw colpa. During a quiet moment, Ricardo thought it would be great to see a monkey so started searching with the telescope, he didn't find a monkey, but did find a three-toed sloth. These animals have a top speed of around ½ a km per day and have fantastic camouflage so are practically impossible to spot in the forest, this was an amazing sighting!

Helen, Simon and Alan checked Matrix 2 and found lots of tracks including quite a few ocelot and even more interestingly, giant armadillo.

Rosa, Becs and I planned to canoe down the river and check the riverside mud for tracks to photograph for a reference collection. However, the river was dangerously high and fast, there was no mud visible at the side of the river (and hence no tracks), the canoe was rotten and falling apart and I couldn't swim, but apart from that everything was good. Can't remember what the reason was, but we went for plan B instead – looking for tracks alongside a small stream. This all went fine so we now have a small reference collection of tracks :)

After dinner, Matt and I went for a walk to one of the swamps; Matt was well prepared and even selected the highest wellies available so he would stay dry – should have known better :) The walk along the trail to the swamp was great; anole lizard, a cicada shedding its skin, spiders and all sorts of insects. At the swamp, Matt tried to stay dry for a few minutes before abandoning that unlikely hope and got stuck into the business of squelching around the swamp with water well above our knees, trying our best not to fall and ruin our cameras (successfully!). There were lots of frogs, dragonflies, insects, one caiman and even a mottled owl on watch above the swamp – fantastic.

Wellies 0, Jungle boots 2.

2 December

Simon, Pete and I did transect C early in the morning and were very lucky with the animals we found; lots of perched parrots, lizards and a whopping 6 species of monkeys.

Anja and Becs went on a parrot foraging survey and failed completely to find any foraging parrots – appalling. They did see saddleback tamarins tucking into grasshoppers and a harpy eagle, but that does not count as they are not parrots.

3 December - last full day at Piedras :(

Rosa, Becs and I did the last shift :(at the macaw colpa. This was my first trip to the macaws this slot and it was wonderful to see these spectacular birds so close and for so long; a real privilege.

Before dinner, Alan and Marcello did brief presentations on the preliminary results of the expedition. We added a new species to the known list of mammals that occur in the area, the neotropical otter. White-bellied spider monkey population continues to increase since the establishment of Piedras Biodiversity Research Station and the associated cessation of hunting. A very healthy large predator population, including jaguar, puma and ocelot occurs in the area. Macaws are very vulnerable to human disturbance and claylicks were seen to be very important for social interactions.

After yet another fantastic dinner from Gloria and Melissa, we got the music on and did a bit of dancing, mostly tango :) Then, with the aid of a bottle of Pisco or two, we talked into the small hours, discussing grammar. Yes, I'm afraid it is true!

4 December - Piedras to Puerto Maldonado

Having packed our bags, we loaded the boat and set off downriver for Puerto Maldonado. Instead of staff pointing out wildlife, as on the way upriver, now, after two weeks working on the expedition, everyone was spotting and identifying all sorts of wildlife; mission completed :)

So, that ends Biosphere Expeditions' 2009 Icons of the Amazon expedition; a great expedition that I personally really enjoyed. Both groups of team members quickly gelled into great teams who did a huge amount of really useful, great work. Thanks very much to everyone for that hard work and all the fun times.

Don't forget to share your pictures via www.biosphere-expeditions.org/pictureshare and look at our Look Ahead campaign www.biosphere-expeditions.org/lookahead.

So long

Andy