

CAVING in MADAGASCAR

Steve Bourne

Madagascar - a country of bountiful forest, lemurs and a diversity of other fauna not found elsewhere on the planet. Well so I thought. Of course I had read that the country's forests were under pressure and many species of lemur are threatened or endangered, but the same can be said for much of Australia. I was not quite prepared for the level of clearance and just how little natural vegetation remains, at least in the parts of the country I visited in September this 2015.

I was lucky enough to get on an expedition to recover bones of extinct lemurs located in a cave in the Beanka area on the western side of Madagascar. ACKMA member Greg Middleton has been a regular visitor to this area, along with my friend Julian Hume from the Natural History Museum in London. I had previously been on a trip to Mauritius and Rodrigues with them and Owen Griffiths, who resides in Mauritius and has

conservation and business interests on each on these islands.

The expedition was coordinated by Owen, with scientific coordination by David Burney from Hawaii. Other team members were Eric De Boer, a Dutch palynologist, and Christine Griffiths, no relation to Owen but manager of his tortoise reserves, and a team of locals including palaeontologists from a university in Antananarivo, (called Tana by most people) the country's capital.

The journey there was a long one, over 36 hours of plane flights and quality time in various airports. I flew to Johannesburg, waited six hours and then flew four hours back in the direction I had just come from to get to Tana. We stayed overnight in Tana and loaded the four vehicles in the morning with supplies, which had been purchased by Greg and Owen the previous day. The Malagasy currency is the ariary; its 'value' fluctuates between about 2,500 - 3,000 to \$1A, so the supplies came to an impressive 2M ariary. I was briefly a millionaire, although with all that money in your pocket you became a target for the local pickpockets, one who was brazen enough to try and get Julian's money out of his pocket even though he had his hand in pocket around his roll of money!



*Antananarivo is a crowded city with areas of poverty.
It is certainly not a tourist magnet.
Photo: Steve Bourne*



*A pickpocket about to try his luck
Photo: Steve Bourne*

The first day was a gentle 4 hour drive to Tsiromandidy, the last reasonable sized town before our final destination. The last night of 'cold' beer before we hit the field. The hotel was not a high standard western hotel, but the friendly staff and good local food made for a pleasant evening.

Early next morning we heard what was to become a catch cry for camp, "its a brand new day" as Owen rallied the troops. Being quite a early riser, assisted by 4.00am church bells and roosters, I was well and truly awake before Owen did his circuit. After breakfast and purchasing 100 bread rolls, we hit the road for Ambinda, the field site at Beanka. At the time, I did not realise these bread rolls were to become a staple of our diet for a week.

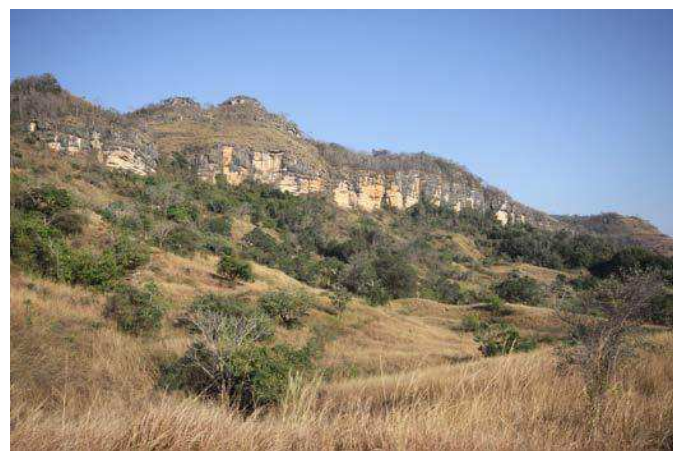
I had been told that the roads of Madagascar are the worst in the world and dismissed this as a superlative without much foundation. Well I was wrong and I have to agree, these *are* the worst roads I have ever seen and



*The 'highway' between Tana and the coast.
Photo: Steve Bourne*

travelled on. Ambinda is 320km from Tsiromandidy, and we took just over 12 hours to travel this distance. we took less on the way back, but more on that later.

For me as a first time traveller of the route, it was all new and exciting, but for the veterans like Greg and Julian,



*The Beanka karst
Photo: Steve Bourne*

the journey was rather tedious. Along the way, we passed through a large national park. Apparently a few years ago, it was a reasonable expanse of forest, but incessant burning and clearing has reduced it to non-contiguous patches of vegetation. For me, it demonstrated the great challenge the world faces, trying to protect natural resources when the human need is great, and this need inevitably wins out, especially when there is little or no controlling conservation agency.

Happily, Beanka is quite a different story. Owen Griffiths, through his organisation Biodiversity Conservation Madagascar (BCM), has secured a 25 year lease of the area. This has added a degree of protection, with the guards Owen employs, in addition to the natural protection provided by the area's geography and geology.

At last, day five after leaving Australia, I got to do something other than sitting in a plane or car - some caving! A local guide took Greg and me, plus our local university palaeontologists, to a cave not too far from the Ambinda field camp. We only visited the dry sections of the cave, but did return a few days later to explore the wet section.

I managed to see my first sifaka lemurs and got some nice photos. Now I knew I really was in Madagascar!! The days of travel were looking really worthwhile now.

Day six. Now for the serious business. The mission was now clear to me. I was a little vague when I joined the trip, but Dave Burney, Julian and Greg with Owen now clearly explained the expedition's objectives. We were to set up a field camp near a cave where extinct lemur bones had been found two years previous. It was a short three hour drive across rugged terrain including creek crossings. I learnt that on a previous trip the crossings were impassable to 4WD vehicles and cattle drawn wagons were hired. I also learnt when we returned to Ambinda that the camp site was a mere 17 km away, it



*Home sweet home - our camp site
Photo: Steve Bourne*



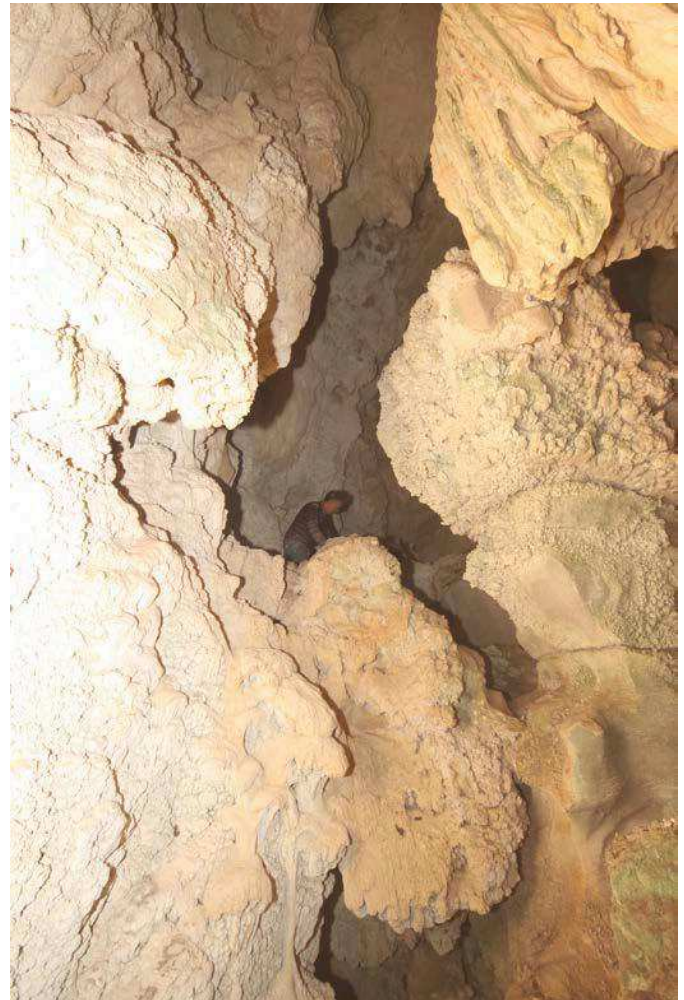
*Collecting the fresh meat on the way to our camp site.
Photo: Erik De Boer*

would have nearly been possible to walk there in the same time as driving.

We set up camp in a rather exposed area, but given we were not in camp during the heat of the day this did not matter. On the way to our camp site, our drivers had purchased some chickens and ducks. These were transported live to camp, and provided fresh food over the next few days. Not quite how it would be done at home, but with no refrigeration, a perfectly reasonable way to ensure you has fresh meat.

When I left Australia, I made a conscious decision to not have any form of communication or time keeping device with me. As someone who spends his life attached to various forms of media, I thought a break would be very good for my wellbeing. This was true, but the total lack of any idea of what time of day or night can create some interesting situations. The first night in the field camp I awoke refreshed after an very early night (8.30pm or so after the generator was shut down). I noted a light on in Owen's tent and assuming the the catch cry "its a brand

new day" would soon ring out, I dressed and left the tent. It was dark, and given the early start, decided to find my way to the river and try to photograph lemurs and other nocturnal wildlife. After a considerable length of time at the river (maybe 1 km from camp) and still being dark, I guessed I may have misjudged the hour of the day/night, so I returned to my tent. Much later, the "brand new day" cry rang out across the camp at 5.30 am. I asked



*Owen Griffiths in one of the new caves
Photo: Steve Bourne*

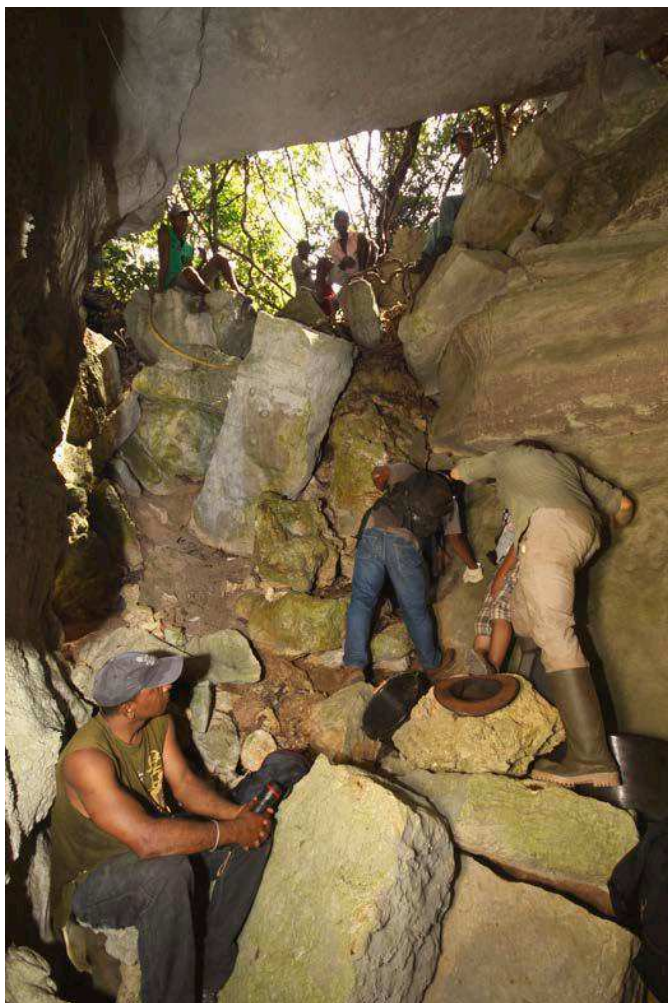


*Walking across the Beanka karst to the cave site
Photo: Steve Bourne*

Owen when he had his light on during the night. Apparently he had woken for a drink at 2.00 am and I had seen his light, and thinking it was morning had set off. This was not the only time I spent some hours exploring the Malagasy jungle at night; sometimes a clock is useful!

Once the rest of the team was ready, four hours after I was, we set off for our target, a cave with lemur bones. Just a short one and a half hour walk. When I added up the travel from home, I was a long, long way away, both in distance and time.

The cave site with the bones is a steeply sloping cave entrance. Dave Burney had provided a preliminary

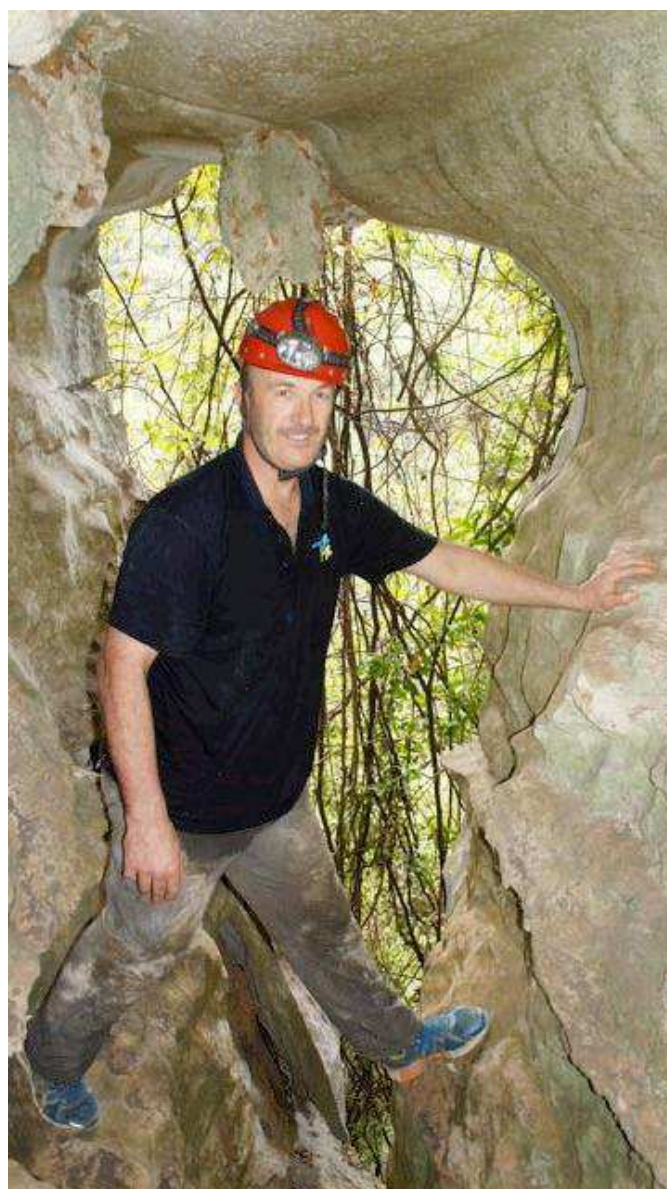


The steeply sloping entrance to the bone cave. Bones were trapped in small pockets of sediment close to the entrance.

Photo: Steve Bourne

interpretation of why the bones were there - a possible giant eagle roost, where these bones were discarded from above and were dropped/washed into the cave. The excavation team of locals set to work and the rest of the team set off on other tasks. Owen and I explored to the right of the cave entrance and quickly climbed to a new level, and discovered two new caves straight away. This was too easy. Neither cave was very long, maybe 100 metres of passage each, but of good dimensions, some nice climbs and leads, so plenty to keep a caver interested. The upper entrance of one supported Dave's interpretation of an eagle-accumulated deposit being directly above the dig site. No doubt further analysis of the bone material will confirm or refute this interpretation.

Excavated material was sieved and sorted on site, with Julian and Christine coordinating this work. The logistics (and hard work) of carrying all of the sediment one and half hours back to camp meant that it was much easier to carry tables, sieves and other equipment to the cave site. My role became the "official" expedition photographer, which was a pretty good gig. It gave me



The author in one of the new caves we found.

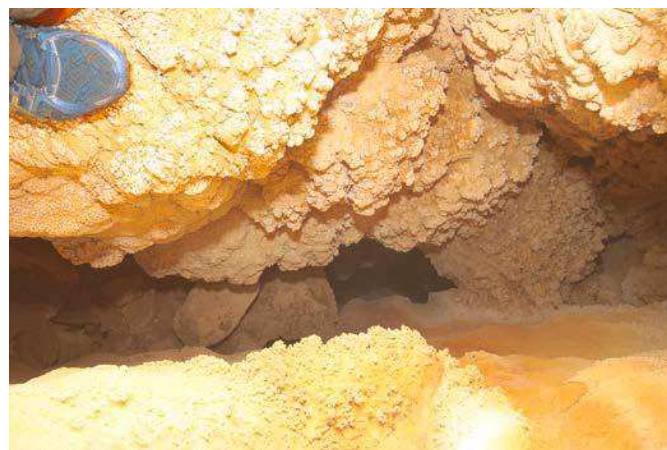
Photo: Greg Middleton

the excuse to move from one site to the next, do a bit of cave exploration, photograph birds and other wildlife, and generally have a really good time. I finished with a little over 2,500 images for the trip.

One the second day of excavation, Greg, local guide Delague and I visited the Bokorana River Cave. I understand that this cave was discovered via Google Earth, as it is possible to see the Bokorana River disappear into one side of the Beanka karst and emerge at another point. We entered the cave where the river exits (Greg tells me the entrance side is inaccessible). The first section is quite deep water, requiring swimming until a sand bank is reached. It was on this sand bank we noted crocodile tracks, and had a brief discussion as to whether we should keep going into the cave. I am not quite sure what the logic was, but we decided to keep heading into the cave. The serpentine cave passage is



Christine and Owen and two local guides at the entrance to the Bokorana River Cave
Photo: Steve Bourne



The deep slot I managed to negotiate
Photo: Steve Bourne

astounding. I had never been in a cave with a passage that meandered like this. At one point we heard a loud roaring noise which had us puzzled until we rounded the next corner to find tens of thousands of bats milling around. Moving further into the cave, Greg noticed a red eye ahead in his headlight. This was the crocodile that has made the tracks and was now about one kilometre into the cave! We crept closer and took a few photos and



The crocodile in the Bokorana River Cave
Photo: Greg Middleton



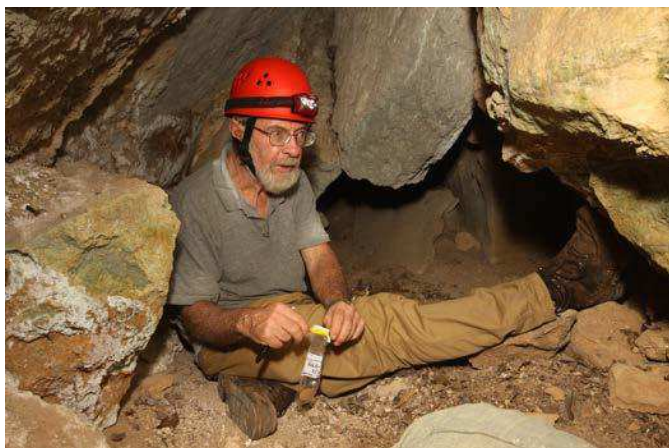
Partial skull of Archaeolemur
Photo: Erik De Boer

decided that it would be unwise to push passed the two metre crocodile and having to pass it again on the way back. I felt slightly exposed, wearing my very best caving underpants (red) and nothing else!

A small collection of lemur bones was found above the main site. This small cave dropped down a deep slot a few metres inside the entrance, and it appeared that bones were being washed down here and there could possibly be a deposit at the base. I volunteered for the climb and looking down, thought it may have been about 10 metres. The narrow slot became much wider at about this depth requiring me to reverse and place my back against the other wall, and further few metres further down, I had to do the same again. The slot was over 20 metres deep and quite an exciting climb, but

unfortunately no bones at the bottom. The sediment here was not conducive to bone presentation, and anything that had made it this far down had corroded away. After resting for 10 minutes or so, I made the long haul back to the top. We were thinking of names for the cave, and I proposed Cheese Grater Cave, because that it what it did to my back on the climb. This just added to the collection of scratches and bruises I was managing to accumulate.

It only took two days to complete the excavations, so the next day we took a walk following the river to a nice gorge with a couple of caves to explore, plus lots of wildlife to photograph. We found tracks of the elusive fossa, an animal I would love to have seen in the wild but had to wait to we visited the zoo in Tana a few days later. We saw more tracks of crocodile including tracks that were twice the size of the ones in the cave the previous day. It makes you skirt the deep water rather than wade through it! Greg led us through a couple of caves he had surveyed on previous trips and we explored the gorge for



*David Burney excavating bones
Photo: Steve Bourne*

archaeological sites. The caves are warm and humid, so I sweated profusely, even with minimal exertion. Caving at the lower levels in the water had its advantages provided you could ignore the crocodiles. I saw another small one, which is apparently pretty unusual because Julian and Greg have been visiting Beanka for a few years and sightings are very rare. As we made our way back to camp, it started to rain, but fortunately did not last too long. The following morning, everything was mostly dry as we packed to head back to the field camp at Ambinda.

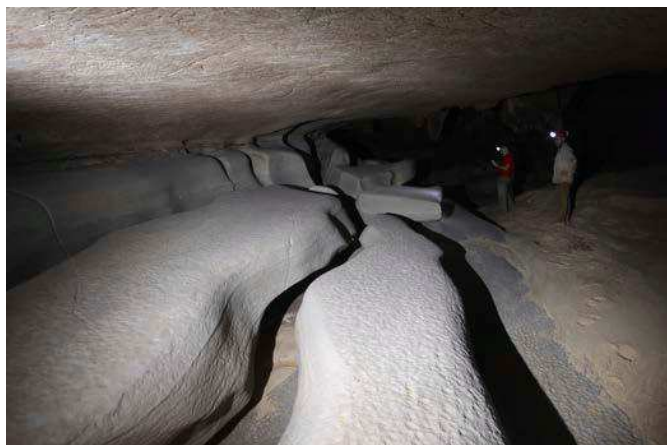


*Delague with a huge eel
Photo: Steve Bourne*

The local villagers treated us to some spectacular dancing - back flips from a standing start a specialty for even the youngest of boys. I took many photos of the dancing and showed the photos on the screen to them.



*Above. My new friends at Ambinda
Photo: Julian Hume
Left. Acrobatic dancing
Photo: Steve Bourne*



Top left. A large millipede, reminiscent of those at Mulu, Sarawak. Top right. Beautifully water-sculpted limestone. Bottom left. Greg in a cave entrance. Bottom right. Greg, Julian, Eric and Christine in a high level passage.
Photos: Steve Bourne

This seemed to be something they had not seen before and pretty quickly I was taking photos of everyone from the village. Through an interpreter, I explained that would print them and send them back - how I would love to be there when they see the hard copies.

Greg and Owen led a trip to a bat cave found on a previous trip. We had to climb down a very steep gorge to reach it. The cave has some archaeological sites at the entrance, evidence of fires and hearths, and I wondered if the locals were catching bats and eating them in the past. I enjoyed a swim in the gorge river before we made our way back to camp.

Owen, Dave, and the local professors headed back to Tana a day earlier than the rest of us, allowing us to explore more caves and forest. Julian, Christine and Eric went with Andrew, a student undertaking his PhD studies on the Sifaka Lemur, in the hope of finding them as Eric was yet to see one. Greg and I went back to the cave we visited the first day, this time to swim the water that had put us off the first day. fearless of crocodiles by now! We found a new cave-dweller this time, eels. One

was enormous, well over one metre in length. I was interested that the locals do not eat them, as other cultures rate them highly as a food source. I never learnt why this is so. The cave also has at least three species of micro bats, plus one species of flying fox. One the way back to camp, Delague, our superstar local guide, found another troop of Sifaka Lemurs. Although I already had a couple of hundred shots, I took some more.

Christine and I then visited a cave that was used as a burial site in the past, with two large wooden coffins still in place (minus the previous occupants). We met the others returning with Andrew, somewhat disappointed they had only seen one lemur in the distance. I did enjoy showing them my photos of our close encounter. Interestingly, there was no sensitivity around visiting the grave sites and the local guides did not mind photos of the site and any issues around accessing the cave.

All good things must come to an end and it was time to pack and head back to Tana. A storm on the last



Above, Greg Middleton in a large cave. The floor is covered with bat guano.

Below. A coffin in the grave cave

Photos: Steve Bourne



afternoon threatened to extend our stay, and certainly made it challenging keeping gear dry in the tent. After farewells, we set off on the 320km to Tsiromandidy. It was to prove an exciting drive.

On the way, we stopped at a small village and enjoyed a warm Three Horses Beer (known locally as THB). No refrigeration and mid 30°C temperatures with a beer straight off the shelf - but when there is no option, the beer still seems pretty good.

While here, the locals asked through Rado, one of our guides who is fluent in Malagasy and English, if we would take two villagers to where someone had died alongside the road on our way to the next village. We couldn't see any issue with this and put one in each vehicle. When we got to the site, I stepped out of the vehicle to get back into the front seat, and was approached by a man trying to give me money. I refused as I thought he was trying to pay us for bringing the villager to assist them. I could see a man cradling another who was not dead but clearly in a very bad way. The driver urged me to get in the car, and although I couldn't understand him, sensed that something was amiss. We could see large numbers of people walking towards the site, many of them with spears. When we caught up with the other vehicle, we learnt that the Dahalo (local bandits) had shot two villagers and stolen their cattle. They were gathering a group to try and get them back. Apparently, the man trying to give me money was trying to get us to take the dead and dying men to the next village. I learnt that a similar clash earlier in the



*Trying to keep the tent dry when a storm hit
on the last night in Ambinda
Photo: Julian Hume*

year had resulted in 5 dead villagers and all 12 Dahalo being killed.

We had allowed an extra day just in case we had difficulties getting out of Beanka or the excavations took longer than anticipated, which meant we had two nights and one day in Tana. We visited the university to meet the two professors who had travelled to Beanka with us, and view their new laboratory. I found it interesting with their recent excavations - Madagascar has quite a fossil records extending back to dinosaur eras.

We visited the zoo, a rather sad, sorry affair where animals are kept in less than ideal conditions. If you wish to have a good look at lemurs, or an aye aye, you need to bribe the keepers. The animals are so used to humans they climb all over you to reach the honey the keepers place on you. I refused to pay the bribe to see the aye aye, as much as I wanted to see one. It didn't seem right to wake up a nocturnal animal just to satisfy my wishes. The last morning dragged on as we waited to go to the airport and leave Madagascar. We tried walking around the streets, but the pick pockets and beggars became too much.

Madagascar was not quite what I thought. The amount of country that has been cleared, at least where we went, gives little hope for the wildlife. Add to this a (over) population of people that is predicted to double every 25 years, and the magnitude of the issue becomes apparent. I did not find the capital city Tana a very pleasant place, but once away from the main population centres, people are friendly. The really remote areas of Beanka are fabulous and one wonders what the country would have been like prior to human occupation. The small pockets that are being preserved by Biodiversity Conservation Madagascar and others will hopefully retain some of this



*Above and below. How cute is this? Sifaka Lemurs
Photos: Steve Bourne*



country's remarkable natural heritage. But get there soon and have a look just in case!

Julian and I boarded the plane for Johannesburg and to meet up with ACKMA member Hein Gerstner and wife Andia for the second part of this adventure. But that is another story...