









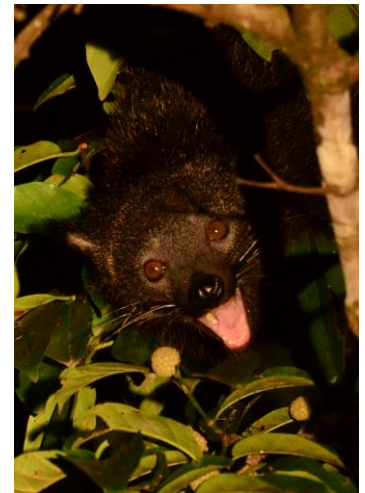
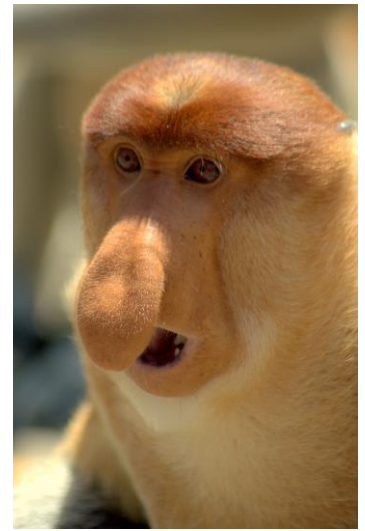


## Sabah's Mammals Tour

**Destinations:** Kinabatangan River, Tabin, Danum Valley, Deramakot: Sabah, Borneo

**Duration:** 16 Days **Dates:** 12<sup>th</sup> August – 17<sup>th</sup> August 2017

-  Over 56 hours spotlighting in Borneo's rainforests and seeing many species
-  An amazing hour spent watching a herd of Elephants feeding on the side of the river
-  An incredible Marbled Cat sighting grooming and looking at us at eye level for 5 mins
-  Wonderful primate and bird filled cruising up and down the Kinabatangan River
-  All 8 species of Hornbills and endemics such as Blue-headed Pita and Bristlehead
-  Taken on rivers and through forests by expert guides such as spotting maestro Mike
-  An incredible and record breaking total of 62 species of mammals sighted
-  Seeing over 20 species of reptiles, including a Bornean keeled green pit-viper
-  Spotting over 110 species of birds in total with many raptors & owls observed
-  Watching a large flanged male Orangutan feeding close by on the Kinabatangan



### Tour Leader / Guides

Martin Royle (Royle Safaris Tour Leader)  
 Ran & Rafai (Driver)  
 Aslan (Kinabatangan Guide)  
 Gee (Kinabatangan Boat Driver)  
 Mawi (Tabin Guide)  
 Pondi (Tabin Driver)  
 Adzil (Danum Valley Guide)  
 Ruslan (Danum Valley Driver)  
 Mike (Deramakot Guide)  
 Romeo (Deramakot Driver)

### Participants

Mr. Monty Ross  
 Miss. Jessica Ross  
 Ms. April Brunelle  
 Ms. Bobbie Borowski

### Overview

**Days 1-3:** Kinabatangan River

**Days 4-5:** Tabin Wildlife Sanctuary

**Days 6-8:** Danum Valley

**Days 9-14:** Deramakot Reserve

**Day 15:** Sandakan

**Day 16:** Sepilok



# Day by Day Breakdown

## Overview

Borneo is without a question one of the most biodiverse and wildlife rich locations in the world. From enigmatic orangutans to pygmy elephants and from huge salt-water crocodiles to well-endowed hornbills the tropical island has some of the world's best known species. However it is also home to animals that most people have never heard of, from the very elusive Borneo ground cuckoo to the curious looking proboscis monkey and from the secretive sun bear to the misleading flying lemur; Borneo has many species which are just down right strange.

Most people who visit Borneo do so with at least plans to see orangutans, these red apes are the undisputed kings of the island's fauna and of course we would be hoping for good sightings on this trip. But it was not just this well known and internationally famous species we would be focused on. In fact many of our targeted species would fall well within the rarer and more unusual species bracket. We would be travelling to 4 different forests and exploring during the day and night to try and wildlife such as flat-headed cats, colugos (the other name for the flying lemur, as they neither fly or are a lemur), slow loris, Sunda clouded leopards, sun bears and if we are really lucky some animals that are next to never seen such as tufted ground squirrels, banteng, banded linsang and Sunda pangolin. In order to maximise our chances of seeing as many of these elusive mammals as possible and also tick off many bird, reptile and amphibian species we decided on the Kinabatangan River, Tabin, Danum Valley and Deramakot for this trip. Each location offering something different and all having chances for some incredible sightings.

With these locations we would be visiting some places full of tourists, other for more wildlife lovers and yet others that are very specialist, but all of these forests have one thing in common. They may not be around (or their inhabitants as numerous) in the near future. These forests are some of the most under threat in the world, increasing human population, coupled with poaching and illegal logging are culminating in the forests and the animals they harbour becoming increasingly rare and endangered. But the single biggest threat here is the ceaseless conversion of forest to monotonous palm oil plantations. By driving around a good part of Sabah (one of the more wildlife and conservation focused parts of South East Asia) we will see first hand the difference between pristine forest and monoculture plantations. We aim to showcase the wildlife and forests of Sabah as well as increasing awareness of the problems it is facing. We will also have the guidance of passionate local guides and there are some fantastic conservation groups working tirelessly to increase sustainable ecotourism here and save as many acres and species as possible.

As many of our targeted species are nocturnal we will be spending a large proportion of our time in the dark, searching the forests and river banks with a spotlight; looking for the tell-tale eye shine of an animals eyes reflecting back the light from your torch. It is always very hard to predict what animals you may see when you embark on a safari, but one thing we know for sure with this trip to Sabah, Borneo: that is that we will see plenty and what we do see will either be endemic, endangered or elusive.

We at Royle Safaris hope you enjoy reading this trip report and that it takes you back to your time in Sabah, Borneo, Malaysia; and all of the individual places we visited as well as the sightings log that will hopefully help you identify some of the animals you took pictures of.

Please contact us if you have any questions or queries we are always happy to help.

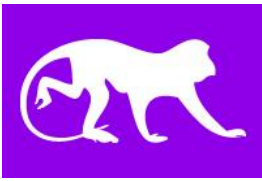


## Day 1 **Kinabatangan River**

## *Arrival, Travelling & Wildlife Watching*

This morning April (who arrived the day before) was collected by Ran our driver for the day and then Martin was collected. We then departed to the airport to meet everyone else as they arrived in from Kuala Lumpur. The flight was on time and after a short stop at the shop for some water we hit the road and made very good time as we arrived at the Bilit Jetty at around midday. We were then taken downstream a short distance with Aslan our naturalist guide for the next 2.5 days.

Once we arrived we checked in, had a briefing and some lunch. The heavens opened just after lunch and introduced us to the incredible power of the afternoon storm here. The torrential rain banged off the metal roof in a deafening roar, but at around 4pm when it was time for us to depart for our afternoon river safari it stopped. Almost on queue.



Almost immediately after starting the safari we had seen three species of raptor, the rare Wallace's hawk-eagle, crested serpent eagle and crested goshawk. We added a white morph juvenile oriental honey buzzard to that list among with another crested serpent eagle. But our luck with the birds was not just contained to the raptors as we also found several Storm's storks circling above the river and we had great views of 2 of the 8 species of hornbills today, one Oriental pied hornbill perched (and a larger flock flying in the distance) and then stunning views of a male and female rhinoceros hornbill perched in an open tree offering great unobstructed views. Along with the birds we had some great views of the very common (the most common primate here) long-tailed macaques as they sheltered together after the rain and groomed in long lines on the branches and orangutan rope bridges over the river channels. We watched as the youngsters jumped from tree to tree and the adults sat more sedately and just seemed to take in everything that was going on around them. Alongside these common South East Asian primates were several groups (including one large group of over 30 individuals) of the endemic proboscis monkey. This is their stronghold and they were out in force along the banks today, feeding slowly but surely on leaves and sat quietly on the branches with their arms wrapped around their pot bellies. We managed to get some nice views of the adult males, younger males (including one being told in no uncertain terms to get away), adult females and many very curious and acrobatic youngsters. Our third and final primate of the afternoon was a small troop of Sundiac silvered langurs, they were perched in their overnight tree, high at the tops of the trees on branches too thin for their predators (clouded leopards) to reach them on. In fact as we came back to the camp we saw all three species starting to get into their sleeping trees, all on the banks of the river so they only have to be concerned with threats from one side (the land side), crocodiles are only a problem for careless monkeys who fall in.

In between the hornbills and the monkeys we had nice (but difficult to fully see) views of a mangrove snake curled up in the leaves just above the river. This is a venomous snake but being back fanged they are pretty harmless to humans and we watched safely with it just a few feet above our heads.

We then headed back at sunset for a little rest, dinner and then would head out with Gee (another guide at the camp again in search of nocturnal wildlife.

After dinner we searched the river banks for signs of wildlife, with the very elusive flat-headed cat top of our targeted species here. Even before we left there were some fairly large horseshow bats flying around the lamps that lit the way to the jetty and then as we boarded the boat a beautiful buffy fish owl was perched on the flag pole holding up the Malaysian flag and allowing for fantastic views. We went on to see another 3 buffy fish owls including one prowling the muddy shore looking for frogs and fish that are too close to the shore, but the owl highlight was one perched in a tree with a rat in its talons feeding. We had great views for a few minutes of this owl feeding. We also found several small crocodiles (between 30-50cm long), but no adults tonight. Our other sightings tonight were some roosting birds, two stork-billed kingfishers, a group of black-and-red broadbills huddled together and a very beautifully coloured blue-eared kingfisher. No mammals tonight, but we would try again tomorrow and hope our luck changes, but some very nice birds instead tonight.

---

## Day 2 **Kinabatangan River**

## *Wildlife Watching*

This morning the river was very misty, but the life around the camp was up and active, the provost's squirrels and bearded pigs busy foraging in the trees and mud respectively. We would head to an ox-bow lake this morning and along the way we found a troop of proboscis monkeys. They were just waking from their sleep and heading to their feeding trees, stopping to feed on the tenderest of the shoots as they moved along. Along with several troops of long-tailed macaques we saw in the trees and moving along the muddy shore, these were the only mammals of the morning. However the morning boat safari was a tale of raptors and hornbills. First a brief view of a pair of bushy-crested hornbills (complimented later with a more prolonged view), then a perched white-bellied sea eagle in an exposed branch. We found three Storm's storks just resting in a dead tree until a slender-billed crow came along and mobbed them, forcing them to enter the skies. We then saw our first Oriental pied hornbills of the day as a pair flew over us, one landing in a tree offering great views with a pair of blue-throated bee-eaters in a nearby tree. We watching as the bee-eaters caught insects including a butterfly. Beating them against the tree branch and then removing their wings.

Moving along we found of fourth species of hornbill (Borneo has eight species, so we are half way already), a female black hornbill was perched and feeding a distant tree. Then as we entered the ox-bow lake we had great sightings of a crested serpent eagle, a pair of black hornbills and a few different Oriental pied hornbills. On the ox-bow lake we didn't see too much, we had a brief fly over by a pair of wrinkled hornbills (5 of 8), a second white-bellied sea eagle, heard rhinoceros hornbills calling and saw a basking Oriental anhinga.

Leaving the lake and heading back towards camp we had more raptor sightings, great views of a brahminy kite and then a grey-headed fish-eagle before returning and having breakfast.

After breakfast we went for a walk through some of the lowland forest to see if we could find any of the jungle specialist birds. We heard many species of babblers but could only locate (and positively identify) a ferruginous babbler and a chestnut-backed scimitar babbler. We did however see many other species of birds including some wonderful such as a juvenile male crested fireback moving along the path ahead of us, a stunning male scarlet-rumped trogon, endemic white-crowned shama and Raffle's malkoha.

Aslan showed us the ubiquitous rattan, used to make everything from baskets and fishing nets to roofs and bracelets in Borneo and there were many invertebrates around today. Lots of birdwing butterflies, some flying stick





insects, millipedes (including one that exuded a chemical deterrent that smelt very strongly of almonds (like amaretto) and is probably a cyanide based chemical (hence the smell). We also came across the tracks of a large, lone bull elephant. They were a couple of days old and we were quite hopefully of seeing the elephants tomorrow as a nearby family of elephants had been seen a couple of villages down the river and moving this way. We would try tomorrow morning. After the walk we returned to the camp and had lunch, the sun was getting higher in the sky and the temperature rising to its highest point of the day.

As we chilled and let our dinner go down we spotted a white-crowned shama on the mud where the bearded pigs and large water monitors aggregate. But the highlight came at around 14:30 when Aslan spotted a small dark primate moving on the ground and then quickly moving up a tree. The initial shout was young orangutan, but as the primate revealed itself to us in the tree we quickly saw it was an adolescent male Muller's Bornean gibbon. On his own and presumably looking for his own female to mate with and start his own family group with. He moved casually and relaxed through the camp, brachiating right over our heads and then stopping to spend as much time looking at us as we were looking up at him. What a great surprise and it goes to show that when you are staying at a lodge in the middle of the forest you never know what will come along, it pays to keep your eyes peeled the entire time. We headed out on the boat again at 16:00 and immediately found a bachelor group of proboscis monkeys, males of many ages were overseen by one large fully grown male as they fed on fresh leaves in an overhanging tree. This afternoon was the first time we spotted some of the larger crocodiles that inhabit the river, the first being a 3.5m long one basking and then entering the water as we approached and then a few others around 1.5-2m long. It was the perfect time for them to be out basking, it had been cooler as it rained a little while ago and they were out to bask in the afternoon sun before a night of hunting.

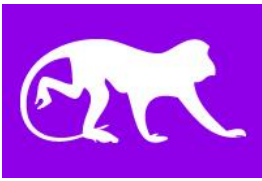
Cruising further on and towards the narrow channel connecting the main river with the ox-bow lake we went to this morning we found a crested goshawk flying over the river and going over to the trees it landed in (we couldn't find where it had perched) we found a troop of long-tailed macaques moving along the bank and sliding down a large half fallen tree. It was very interesting to see the different personalities of the individuals, some were very confident and sliding all of the way down and some more nervous and gripping the bark very much and others that just wanted to get the whole thing over and done with and would pretty much run break-neck speed down and jump into the bushes at the far end as soon as possible. Also here in the trees behind was a pair of Oriental pied hornbills which we could see occasionally as they moved in the dense vegetation. We then came to a very large troop of Sundiac silvered langurs moving through some thickly leaved trees, the group contained at least one orange morph, appearing pale orange compared with the others in dark silver – grey. The babies are born bright orange (as a marker to the adults that they are young and to be treated as such) and they usually begin to darken and turn silvery after around 6 months of age. It was cool to see an adult that had remained completely pale-orange and didn't go through the darkening phase.

Moving to the narrow channel we found a very nice bachelor group of proboscis monkeys as they feed in trees nearby the shore. We watched as they started to move over the river, watching them climb onto the thinnest branches that could support their weight and then jump with all their limbs stretched out was awesome. Particularly when the largest male jumped. They landed and nearly took that side of the tree with them as they crashed down until the larger branches broke their fall and the regained their composure and sat upright on the branches as if nothing had happened and carried on feeding.

On our return journey we saw some of the same we had seen but we were treated to a fantastic orangutan sighting. Seeing wild orangutans along the Kinabatangan River is not common and we spotted this sub-adult male (around 9-10 years old) standing up in a tree and then watched as he moved slowly and methodically along the branches for a few minutes. The movement being in stark contrast to the quick and energetic movement of the gibbon earlier and the jumping and crashing movements of the proboscis monkeys, langurs and macaques. Orangutans are too massive to jump from tree to tree and so use their weight to bend the branches they are on towards the tree that want to get to and then reach over with their incredibly long arms and grab the neighbouring tree and then transfer from one tree to another in a swaying and energy efficient way. We could tell the age and sex of this individual as (through binoculars) the testes were clear and had dropped, his cheeks had started to harden around the edges of his face (the undeveloped cheek flanges), he had the startings of a beard and his face was completely dark. All of these changes occur around the age of 8 years old, but he was pretty big and so most likely between 9-10 years old. After the age of 13.5 years they are classed as adult males and their size, flanged cheeks and hair growth are all massive indicators of this change. It is very hard to confuse an adult male with another age category. It is hard to identify an adult female against a sub-adult male due to their similar size, hair growth, face pigmentation. If the female doesn't have offspring then you have to look for obvious nipples (female) or testes (male) as the definitive difference. What a great start to our tour, in just our first 2 days we had seen 6 of the 10 primate species of Sabah and 5 of the 8 hornbill species.

The only other sightings of note on the return to the lodge was a very nice view of a Jerdon's baza perched and then flying away over us, we then also had a pair of black hornbills flying over us and then spotted a pair of Storm's storks perched and getting ready to roost in a dead tree overnight.

After dinner we headed out once again spotlighting, to try and find the very elusive flat-headed cat; even before we left we had a buffy fish owl land in the camp on the base of a large tree trunk! In nearly 2 hours of hard spotlighting we did see (Aslan only) a lesser mousedeer foraging on the muddy river banks, a few black-crowned night-herons,



many crocodiles in the shallows against the riverbanks, then April spotted a common palm civet moving along the muddy shoreline and shortly after we had great views of a masked palm civet high up in a tree grooming itself. The sky was very clear tonight and the stars were stunning, the Milky Way clearly visible as we cruised back along the dark river to the lodge for a well-deserved night's rest.



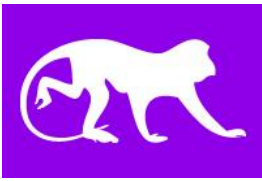
### Day 3 **Kinabatangan River**

### *Wildlife Watching*

This morning at 6 am the group headed out with Aslan on the boat again, as well as seeing the usual cast of wildlife such as proboscis monkeys, long-tailed macaques, oriental pied hornbills, Pacific swallows, glossy swiftlets, crested serpent eagles, green imperial pigeons, slender-billed crows and blue-throated bee-eaters they did spot a white-breasted waterhen, a very large 4m plus saltwater crocodile basking and then the highlight of the trip so far. A very large, fully grown, flanged male orangutan. He was close to the bank and not far from eye level either, all in all an incredible sighting of a wild orangutan. He was very relaxed and just carried on feeding on berries as we watched. All of the adult male characteristics were obvious here, the well developed cheek flanges and throat pouch showed clearly. His hair was very long and dreadlocked as it hung down off his arms and legs and back. The incredible power and size of the male orangutan is all too obvious when they are this close. Adult males are completely solitary and they do not tolerate other males in their territories, they call (with a very loud bellowing type roar called the fast long call) in the mornings and evenings to mark their territories. The main reason that males grow so large (in comparison with females) is that they carry on growing well beyond their 20<sup>th</sup> year and an orangutan over 30 years old will be large enough and developed enough to command a large territory and mate with the females inside it. This doesn't mean that younger males (they are sexually mature after 15 years) do not also have the chance to mate with females, it is typical that unflanged males (15-20 years old) will not call to mark their territories and so can live undetected within the territories of flanged males and when they get the chance will mate with the females in the territory. In fact studies suggest that the unflanged males have a higher success rate in mating because they mate more often with more females than the more dominant flanged males. The main reason for this is the increased energy and time spent (by the flanged males) in patrolling and defending their territories, compared to the unflanged males who can focus more on mating and feeding. This however is countered by the flanged males as they call to attract females. It has been shown that parous females (females who have given birth previously) show a preference for flanged males. This means that even though the unflanged males mate more they are often mating with nulliparous (inexperienced) females and the chances of these females raising their first offspring to maturation is lower than in parous females. This is one of the very few examples of a bamaturism in mammals. This is where there are two very different (physically and behaviourally) maturations in the same size of the same species. In fact being unflanged can be so successful some males never develop the flanges and other secondary sexual characteristics. Why this competing system of mature males has evolved in orangutans is a mystery but a very interesting one to watch and try and interpret.

After breakfast Monty went out for a birding walk through the forest and came back with sightings of the lone male gibbon who came into the camp yesterday, he was still around in the nearby forest. He also spotted a rufous piculet, Malaysian blue flycatcher and the usual skulking babblers. This afternoon at 2pm we went well downstream to see if we could find a group of Bornean pygmy elephants. They had been seen for the last couple of days feeding near the riverbank and going in and out of a nearby plantation. The rain was coming down lightly as we cruised along to the where the elephants had been seen recently. It was around 1.5 hours away but the time flew by with the occasional sighting of troops of proboscis monkeys, long-tailed macaques, Sundiac silvered langurs in the trees and fly overs from Oriental pied hornbills, black hornbills, crested serpent eagles, white-bellied sea eagles, great egrets, purple herons and a very nice view of a pair of wrinkled hornbills flying over the river. As we passed through a couple of villages and also passed more and more palm oil plantations we negotiated several ferries carrying vehicles laden with tonnes and tonnes of palm oil ready to be processed. It is impossible to underestimate the extent of this industry and the demolition that is occurring in SE Asia.

We when found the elephants there were around 9 visible, just their backs and foreheads over the tall grass on the banks on the river, as we stayed and watched for the next hour the elephants ate away the grass to expose the bank and themselves perfectly. More and more came out of the forest and in total we ended up seeing at least 17 different elephants including a few young ones. The youngest being around 6 months old and we watched as the baby would be waiting his older brother (we knew that as they both suckled from the same female for a time and the older sibling



who had short little tusks) to do something like feeding or drinking or pulling down vegetation and then shortly after he would copy. Getting it wrong but trying his best, it was particularly funny seeing him go down on his knees and then sprawl his front legs out in front of him and stretch down to the water and then he must have felt he was going to fall into the river and he would panic and scramble back up.

Watching the elephant youngsters play around and then hearing the adults munch and crunch through the vegetation was very fun. The rain wasn't dampening the mood at all as we spent an hour or so watching them going about their business. Then we started to head back and immediately had good views of helmeted hornbills flying over and then we had a troop of Silvered langurs, the group included a couple of orange morphs. Further along we had some nice southern pig-tailed macaques preparing to roost for the night. Then we had incredible views of a male black hornbill perched low down and then he took off and caught and ate a dragonfly. We were then taken to some limestone cliffs that came down right to the river, there were overhangs with some glossy swiftlets on their nests and up inside the dark recesses of the caves we found fawn leaf-nosed bats roosting here. Before we arrived back we found rhinoceros hornbills and then a flock of 10 oriental pied hornbills which were the only other sightings of note.

After dinner we went out on a spotlighting trip once again. Even before we got to the boat we saw a Malay civet under the boardwalk and watched as it walked down and into the forest. From the boat we found a second Malay civet walking along the river bank foraging at the low tide. Then a massive 4m plus crocodile was just raised at the surface near the bank, with the head, back and tail scutes all visible, but we were heading to the tributary and we headed straight there for the flat-headed cat. We missed the flat-headed cat and in fact only saw the same Malay civet on the river bank, which had moved a little further along the riverbank from where we saw him. We did also spot a black-crowned night-heron but the rest of the trip was taken over by the lightning storm that lit up the sky around us all night. Once back at the lodge we had the rain coming down on the roofs and we were very lucky we had missed the torrential rain on the night cruise and when we went to see the elephants.

---

## Day 4 **Tabin Wildlife Reserve**

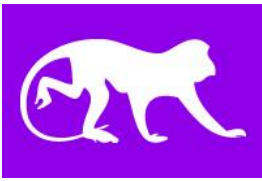
## *Travelling & Wildlife Watching*

This morning we left at around 8:15am and headed straight up towards the jetty at Bilit village. Once again around the camp were the bearded pigs, water monitors and prevost's squirrels and in the traps around the camp they had trapped a Rajah's rat. But the highlight of the morning cruise to the jetty was a female orangutan with a young baby. They were just sat in a tree eating fruit just above a house in the Bilit village. They were huddled together and the baby was particularly clingy to its mother, but what a great sighting to see wild orangutans this close to the village and people. Through ecotourism the orangutans are seen as a good presence now and no persecution is taken against them by many of the locals. Of course this is not completely true for all of the orangutans and all of the people throughout their range but they are doing better in response to people in areas that have good levels of ecotourism contributing to the local economy.

We then went to the Gomantong cave a short drive from Kinabatangan River, the cave is one of the largest in the world with an entrance around 40m tall and then the interior of the cave can span 50m wide and around 60m high. The cave is most famous for two phenomenon, firstly is the abundance of swiftlets (of four species) and bats (of several species) which inhabit the cave in their hundreds of thousands (with over million in total) and the second being the manmade bamboo ladders and rope bridges that people use to scale the impossible heights of the cave walls to collect the edible swiftlets nests for food. It is a delicacy in China and parts of Asia and the value is very high, it used to be that the harvesting of the nests was unsustainable but now it is done in a sustainable way and only at certain times of year. So since the advent of this kind of harvesting came about the numbers of the swiftlets in the cave have increased. So as we entered the cave we were first struck by the smell, over a million bats who defecate here creates a lot of guano which is very rich in ammonia which was what assaulted our noses. There is a mound of bat and swift pooh over 10m tall which is crawling (literally crawling) with cockroaches, centipedes, crabs and other invertebrates. All along the walls of the cave were swift nests and the swifts were coming and going in and out of the cave using their rudimentary echolocation to navigate in the dark and remarkably find their own nests. Further up and in the darker recesses of the cave were the bats, the largest numbers were the wrinkle-lipped bats and they are often high up on the walls and ceiling of the cave. Other bats were lower and identifiable and in each of the crevices and holes in the limestone we found long-legged centipedes and cockroaches and spiders. The cave is full of wildlife and we walked around we checked every nook and cranny. We even found a naked bat, which is unusual for this cave on the boardwalk, it was undersized and probably a young one and was close to death. The simple fact that we found it on the ground is testament to the fact that it was not doing too well, the boardwalk had save it for a short time from the marauding cockroaches and centipedes on the floor of the cave which devour anything that falls from the roof of the cave.

On leaving the cave we checked around the entrance for the cave racer snake as well as the bat hawk, but didn't find either, just a couple of crested serpent eagles. We then left and headed straight to Lahad Datu, having lunch in a restaurant there and then being taken to Tabin in their own transfer vehicle. As we drove through the endless palm oil plantations it was welcome relief to see the forest of Tabin and their enormous meranti trees come into view in the distance and then over time get closer and closer and finally we entered the gate and drove into the reserve. The reason this park is so good for spotlighting and particularly for leopard cats is that this main road runs the border of the forest and palm oil plantation. The plantations are great habitats for rodents and therefore their predators





(raptors and leopard cats) are found here in high abundance. On this drive we didn't look out specifically for anything other than a dead sambar deer on the side of the road being eaten by a couple of large water monitors.

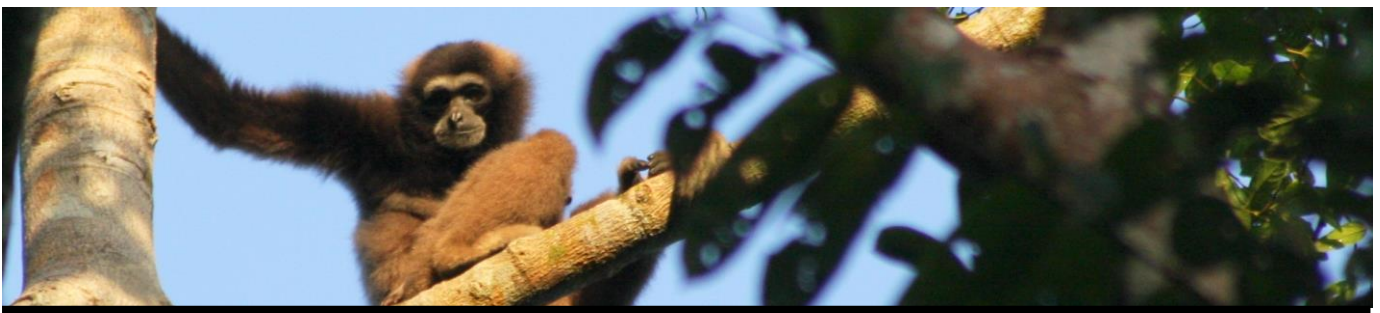
We then arrived and after a briefing and checking into our rooms we went on a walk (guided by our new guide Mawi) towards the famous Lipad mud volcano. The walk would take us on a 2km tour through the primary forest here and whilst spotting wildlife in the dense forest is tough we would be trying to see some of the rarer birds that inhabit the forest floor such as pittas. On the way to the starting point of the hike we spotted a very rare orange morph of the Hose's langur. The Hose's langur is the rarest langur in Sabah as it is but this was the first time Mawi had ever seen an orange morph. However sightings were harder on the trail, we did see a white-bellied red snake and orangutan nests and heard several pittas and hornbills as well as a flanged male orangutan giving his fast long call (a territorial and mate attracting call) but didn't see anything. What we did see was an orangutan nest and also the nest hole that is regularly used by white-crowned hornbills.

Then at the mud volcano we had lots of little green and Imperial green pigeons in the dead trees on the perimeter of the clearing. The mud volcano here is one of many in the forests of Sabah, they are formed from hot springs underground, these push minerals and particularly salts to the surface. Many animals come here to eat the salt, mud and minerals to supplement their diets which are often lacking in sodium and calcium and other salts. The prints of many elephants, deer and pigs littered the dry mud around the volcano. The bubbling grey mud is also very good for skin as well and if you want you can have a mud face mask with the mud. At the mud volcano there is a watch tower which we climbed and had nice views out of the forest, but it was getting dark and so we walked the shorter walk back to the awaiting jeep (along this way we heard a blue-capped pitta, saw many elephant prints and a very fresh foraging hole of a bearded pig which was looking for roots and tubers).

We then made it back to the lodge in a jeep and had dinner, after dinner we went out spotlighting. Straight away we found a Malay civet foraging in the lodge grounds and then a common palm civet feeding in a tree and offering very nice views. A second one crossed the road but we only had very brief views, then in a tree overhanging the road we found our first small-toothed palm civet feeding. Then we found our first cat of the trip, a large male leopard cat sat on the bank of a small stream running from the plantation. We watched as he watched us and then climbed onto a fallen tree trunk and scent marked along its length and then onto the far bank, he scent marked again on a small clump of grass (spraying) and then on a rock before he disappeared from view. Then straight away we spotted a second leopard cat (maybe a female) but it was hard to tell, just sat on the side of the plantation staring at us. We then spotted a common palm civet feeding and had great views followed by a third leopard cat walking behind us and then towards us. The young male walked right beside us and then away into the grass and forest and out of sight.

Further sightings on this drive included a Thomas's giant flying squirrel, hearing a sun bear (but being unable to spot him), a fourth leopard cat and a buffy fish owl eating a snake in a tree just above the road but the best sighting on the return trip to the lodge was a Phillipine slow loris. The slow loris was quite high in the tree and out of sight (other than eye shine) at first, but as we watched for the next few minutes he climbed down and we had great views of this 'not-so' slow loris moving through the branches. Seeing the way it climbed through and along the branches using its four limbs and great grip strength was fantastic.

We then returned to the lodge for the night and prepared for an early start tomorrow and a birding walk up along some of the roads close to the main lodge area.



## Day 5 Tabin Wildlife Reserve

## Wildlife Watching

This morning at 6:30 we had a small birding walk before breakfast, the gibbons around the lodge had been calling since before 5am. It was one lone male gibbon which we spotted in a merati tree in the lodge grounds. He was calling and swinging from the trees and over the river into the forest another solitary gibbon was replying. Whether they were members of the same family trying to regroup or rivals in some sort of territorial battle we didn't know, but we had good views of this male before setting off. Before leaving the lodge complex we had a large troop of southern pig-tailed macaques foraging around on the ground, a plantain squirrel quickly moving through the trees and Martin found several bats. Firstly many fawn horseshoe bats roosting underneath the main meeting house (as in under the stilts of the actual building) and then a single lesser dog-faced fruit bat under the welcome sign to the lodge. There were some nice birds active, including yellow-bellied prinias, chestnut munias, spectacled bulbuls, little green pigeons, blue-throated bee-eaters and white-breasted warblers and a couple of crested serpent eagles. Then after breakfast Monty and Bobbie went with Mawi on another birding walk into the forest and along a different



road, they came back with sightings of Raffle's malkoha, little spiderhunter, orange-bellied flowerpeckers, slaty-grey woodpecker, crested serpent eagle and a very nice sighting of a bright green banded Bornean green keeled pit-viper in a bush hoping to ambush a bird or frog.

During lunch the resident family of gibbons arrived (meeting up with the lone male who had been here all day) and everyone had amazing views of them interacting, grooming and swinging with almost reckless abandon in the trees around the main lodge building. As we sat down for lunch we also had views of a feeding cream-coloured giant squirrel that had come down from the trees to a low bush to feed on the fruits.

Then at 16:00 we went for a drive, it was raining lightly but it didn't hinder our sightings, very quickly we had a crested serpent eagle in a tree and then one tree that contained a black hornbill (male) and a pair of rhinoceros hornbills. We then had a pair of wrinkled hornbills flying overhead as well as very large numbers of blue-throated bee-eaters, Pacific swallows and various swiftlets flying around. The rainfall had dramatically increased the numbers of flying insects and so these insect feeding birds were out in force today and nearly every fence wire, fence post and exposed branch overlooking the road had one of them perched to it as they prepared to go sallying back and forth catching insects on the wing.

Then boom, three orangutans in the same tree, a large fruiting marassi tree near the road had attracted an adult female and her 5-6 year old offspring (who slowly climbed away and out of sight as we stopped) had joined another (maybe an adult female or a subadult male) to feed on the abundance. The trees here mast (fruit) in such strange patterns which are unpredictable the normally solitary orangutans will share a tree that is in fruit with others. There tends to be such an abundance of fruit produced by the trees (particularly fig trees) that they do not mind sharing this resource and this is what we were seeing here. Carrying on we saw another family, this time a family of Wallace's hawk eagles. First a juvenile on a fence post and then one of its parents in a nearby tree and then around the corner the other parent. There were so many raptors out today we ended up seeing 6 crested serpent eagles, 1 changeable hawk eagle and 4 Wallace's hawk eagles on this drive alone. The rain finally stopped at around 17:30 and we spotted another pair of rhinoceros hornbills close to a mother orangutan and her younger (maybe 2 year old) baby. The sighting wasn't great but we could see her moving carrying the baby most of the time.

The after dinner we went for our final night drive in Tabin and instead of the steady stream of civets we saw last night it was flying squirrels that dominated the early part of the drive. We had good views of a red giant flying squirrel early on and then found a fruiting tree that was being utilised by a flock of large flying foxes feeding and flying to and fro. It was also a night for bearded pigs we saw two lone individual males (one early and one late) as well as a large sounder of 9 (females and young of various ages) leaving the plantation and heading into the forest tonight. We also found a sleeping water monitor up a tree before coming across a tree with 3 different Thomas's giant flying squirrels in it. A pair of red giant flying squirrels was spotted after a feeding masked palm civet and then we had more sightings of foraging common palm civets and a patrolling leopard cat who scent marked as he moved purposefully along the side of the plantation. Then the night's highlight was a pair of thick-spined porcupines (or Bornean porcupines) leaving the plantation and walking (and running) along the border, allowing for good sightings and then disappearing into the forest. Our last sightings of note today was a juvenile barred wood owl in a very good position, a reddish scops owl (in a less conspicuous position) and another leopard cat male scent marking.

We would be leaving after breakfast tomorrow but all in all a very good time in Tabin and the night drives were very successful, despite us narrowly missing a sun bear and no clouded leopard.

---

## Day 6 Danum Valley

## *Travelling & Wildlife Watching*

This morning we had breakfast and then departed at 7:45 and headed towards Lahad Datu. Along the way we found more crested serpent eagles, blue-throated bee-eaters, Pacific swallows, spotted doves, Javan mynha, pied trillers, lesser coucal and some wonderful collared kingfishers. We arrived after a quick drive and went straight to the Borneo Rainforest Lodge office, after getting some refreshments and a briefing we boarded our next vehicle and headed towards the enormous and pristine Danum Valley.

Just as we were approaching the lodge and close to their wonderful 450m long canopy walk way we found a large flanged male orangutan. He was being monitored by two of the orangutan researchers here who confirmed he was 35 years old and called Mike. Not a very exotic name but he seemed to suit Mike as he climbed up the vines on the side of the tree minding his own business. We then arrived at the lodge and were introduced to our guide for the next 3 days Adzil. We had lunch and watched a troop of red langurs coming very close to the main building. They were climbing around the trees and feeding, running along the boardwalks and as we were on the first floor in the large restaurant and bar area we had amazing eye level views of them. This was our 9<sup>th</sup> of the 10 primate species of Sabah. So now we only needed the western tarsier to complete the set of all Sabah's primates and the white-crowned hornbill to get all of Borneo's hornbill species too.

We had planned to go for a walk in the afternoon, but the rain was torrential and so we decided to take it easy this afternoon and just have a night drive later. It was still raining as we went on the night drive and that probably affected what we saw, but it wasn't too bad in terms of sightings. We had a very brief view of a Malay civet very early on the drive and then a fawn sambar deer came out and crossed the road following its mother into the forest of the other side of the road. We then had some distant views of a Thomas's giant flying squirrel and then a red





giant flying squirrel in another tree high up. We then spotted another sambar deer but it was deep into the bush and hard to make out, but the highlight of the night was a brilliantly white moonrat. Walking along the side of the road and allowing us to have great views before it investigated a tree trunk and then around and into some long grass, we did get another look at it a little further along but it then disappeared out of sight. We returned back to the lodge and had dinner before retiring to our rooms.

---

## Day 7 Danum Valley

## Wildlife Watching

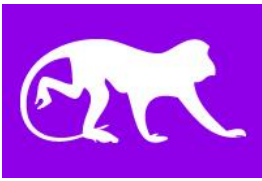
This morning we had a pre-breakfast birding walk and right off the bat Bobbie saw a Sunda stink badger close to the cabins and moving along down a trail and away into the forest. Monty also had the endemic white-crowned shama around his room before we all met up at the reception. Then as we were all getting organised April spotted a blue-capped pitta in a branch just 20m away. One of the key birds for birders in Borneo and one of the targets of this morning's search was just there at the lodge and we had great views of this colourful bird and then the duller female too nearby. Walking down towards the canopy walkway we spotted some interesting birds including black-headed bulbuls, Raffle's malkoha and then a couple of bristleheads. They were very high in a tree and the mist was affecting our visibility, so we could see the movement of them.

We then climbed up the boardwalk and along the walkways, the views across the canopy and down to the forest floor were incredible, the mist moving between the trees and the bird songs floating through the morning breeze were wonderful. We spotted a few birds from here including three maroon woodpeckers and nice views of a spectacled bulbul. But in general the mist was affecting our ability to see far into the distance and up towards the canopy so we didn't see loads of wildlife this morning. We returned for breakfast and then afterwards April and Bobbie went with Adzil for a walk to the waterfalls in the forest. A good 4 hour hike into the forest, returning for lunch. The walk was through some of the most beautiful parts of the forest here and ultimately headed to a stunning viewpoint high up over the lodge and surrounding forests. The climb was hard, hot and muddy but the views from the summit more than made up for the effort. Looking out across the endless sea of green it is easy to believe that populations of elephants, sun bears, orangutans, clouded leopards and possible one relict population of Sumatran rhinos still live deep inside the impenetrable heart of the forest. The walk then visited a couple of waterfalls, the first being around 7m tall and when dipping your hands, feet and face into the water incredibly refreshing, the second waterfall was much taller and possibly over 30m tall as the water cascaded down the rocks into the pool. A perfect little tropical oasis in a sea of dense trees.

As usual when walking in thick forest the wildlife sightings are sparse but a flock of Oriental pied hornbills rushing above their heads was awesome, the air rushing through their wings creating a distinctive whooshing sound is one of the calling cards of the hornbill family. Most birds do not have air rushing through their feathers when flying but the hornbills do and it results in this sound. They also saw a couple of magnificent rhinoceros hornbills, but the sightings were not just in the forest as Monty, Jess and Martin back at the lodge had sightings of rhinoceros hornbills, crested serpent eagle, water monitors, Pacific swallows, blue-eared kingfisher, various shrikes and then at lunch a beautiful whiskered treeswift perched on a nearby branch and sallied away catching insects in a rather flycatcher or bee-eater manner and not all like a swift.

In the mid afternoon April and Jess went to have a spa treatment and everyone just retired to their rooms and had some down time before dinner and then our second night drive in Danum. So at 20:00 we headed out with Adzil and his spotlight and almost immediately we spotted a red morph Philippine colugo. Also known as the flying lemur (which is a real misnomer as they are neither a lemur nor do they fly), the sighting was wonderful with the animal hanging upside down on a very exposed tree branch around 10m away. We then saw it dangle down with just its hind feet and we could see the skin flaps that help make the colugo the most well adapted animal at gliding in the world. Most gliding animals like the flying squirrels have flaps of skin between their limbs that increase their surface area allowing them to catch the air and glide away from one tree to another. But the colugo has taken this one step further and the flaps of skin extend from its chin all the way to its fingers and then again from the fore digits to the rear ones and then again to the tip of tail. Meaning that when in flight the surface area is extended to such an extent they are able to glide over vast distances (over 150m). From here we carried on and found a common palm civet feeling above a Malay civet. Next we found the roosting site of a little group of three black-and-red broadbills, we had great views and could see their huge bills clearly. We left quickly and didn't disturb them too much and came to a young male sambar deer feeding on the side of the road, his three tined antlers covered in the fine velvet still. Having seen many by this point we didn't spend much time when we spotted a Thomas' giant flying squirrel and carried on until we came to a leopard cat patrolling the side of the road and then moving along the road ahead of us and into the grass on the other side of the road away from us. We then found a second leopard cat, this one was crouched at a waterhole and half hidden behind a tuft of grass.

Carrying on we had a good sighting of a large Bornean file-eared tree frog on the side of the road, before a small barred snail-eating snake crossed the road slowly and casually, seemingly oblivious to the massive truck that was confronting it. Our last sightings before we returned to the lodge was a sleeping Asian fairy bluebird and a very good sighting of a greater mousedeer very close to the lodge.



## Day 8 Danum Valley

## Wildlife Watching

This morning at 06:00 again we headed out towards the canopy walkway again to see if the bristlehead was more visible today. The mist was around once again and a couple of families of gibbons were singing loudly in the distance. A huge male bearded pig was foraging around the lodge grounds, in fact the effects of the foraging pigs here was evident in the huge amounts of earth tilled and ploughed around the cabins. The walk down the main road was more productive today for birds than yesterday. We had decent views of rufous piculet, grey-headed bulbul, lesser green leafbirds (both male and females) and then from the walkway we spotted black-and-yellow broadbills, green ioras, brown fulvetta and on our return down the road more lesser green leafbirds and a Wallace's hawk eagle perched high on a dead tree.

Back at the lodge we had breakfast with a beautiful eight-lined kukri snake moving silently, expertly and stealthily through the rafters of the dining room. We watched the colourful snake for a while, moving around the beams and then down onto the balcony rail and across the blinds, before returning to the rafters. In the small lawn overlooking the river (viewing from the dining room) we could see a pair of beautiful orange-backed flowerpeckers, endemic ducky munias and many house swifts.

We chilled out before lunch and then at lunch our sightings from the dining room continued as a large adult (sex was impossible to tell) orangutan climbed down some vines high up on the other side of the river and moved into the forest on its never ending search for ripe fruits. At 15:00 we all got ready and met Adzil and went for another birding walk to see what was around, the rain hampered efforts this afternoon with the best sighting being a close troop of red langurs moving around and feeding in trees close to the road. Near the river at the lodge we had views of lesser fish eagle, a swimming water monitor and collared kingfisher before dinner. After dinner we headed out on another night drive (all of these night drives would be good preparation for turning ourselves nocturnal in Deramakot after here).

The spotlighting started with some nice frogs, in the same bush we had two large, bright green Wallace's flying frogs and a much smaller and drab brown (with some white spots along its flanks) harlequin frog. From here we got very distant views of a Bornean yellow muntjac crossing the road (at first the shape and height of the eye shine off the ground made us think of clouded leopard, but it wasn't to be tonight). We stopped for a while to try and lure a brown wood owl out of hiding, we could hear him hooting but couldn't get it to come out into view. We then passed the trio of sleeping black-and-red broadbills but then came the highlight of the night and the trip so far. Just to the right of the vehicle at eye level (around 5m away) sat on a fallen log next to a huge tree was a beautiful marbled cat. Almost like a miniature clouded leopard the cat was sat looking at us, before she carried on grooming herself, perfectly happy with the gaggle of ecstatic primates ogling her. For the next few minutes she sat and groomed before getting up and uncurling her enormous and wonderful tail before climbing down and into the forest. WOW!

The adrenaline was still pumping when we found a common palm civet feeding on a type of coffee bush right next to the road. On our way back Martin spotted a red spiny rat running along the side of the road, we watched the busy rodent as it hopped and ran into the forest. Then we were blessed again as we found the same marbled cat walking to the road, crossed the road right in front of us and then walked up the roadside mud bank next to us and away! Just incredible again, what a sighting, what an animal and what a night. Bring on Deramakot tomorrow.

---

## Day 9 Deramakot Forest Reserve

## Travelling & Wildlife Watching

This morning we had breakfast and then packed up, loaded the vehicles and headed out of the forest back towards Lahad Datu. The drive was uneventful with little of note except for some common roadside birds such as spotted doves, chestnut munias, dusky munias, slender-billed crows but then we had great views of an endemic crested flameback just on the road. He didn't even move when we stopped right next to him.

After changing vehicles in Lahad Datu we carried on the long way to the town of Telupid where we met Mike and his drivers in the 4x4 wheel drive vehicles who would be able to take us the rest of the way through the palm oil plantations and forest to get to the Deramakot Forest Reserve headquarters and our home for the next 6 nights. As the drivers had travelled a long way today we would 'take it easy' tonight and after dinner go into the forest spotlighting for just 4 hours. From now on we would be mostly sleeping in the day and spending around 7 hours a night spotlighting in our quest for nocturnal critters including the elusive Sunda clouded leopard.

So after dinner we started at 20:00 and went out into the forest, we had great luck as our first sighting was a new species for the trip. A young binturong was feeding in a tree close to the road. We had some good views of the



animal for several minutes as it went along the branches and munched away on the fresh fruits. We watched as it hung by its prehensile tail to grab fruits on branches that would not have supported its whole weight. Despite being half the size of an adult we could see that it was the largest member of the civet family and its other unique characteristic was its prehensile tail, with a bare patch of skin on the underside of the tip of the tail allowing for extra grip on the branches. We carried on and didn't spend too much time on a couple of flying squirrels (one Thomas's and one red) as we were majorly focused on the animals we had not seen yet. However shortly into the drive the heavens opened torrential rain poured down. We stuck at it for around 40 minutes, but with us planning a short drive tonight anyway and we were going to do something in the morning we decided that we would head back now (at around 22:00) and come back out at 04:00 for a couple of hours pre dawn and combine that with our morning activity tomorrow.

So that is what we did, we turned around and headed back through the rain. We did see much else, just a greater mousedeer on the side of the road.



## Day 10 Deramakot Forest Reserve

## Wildlife Watching

So at the blurry eyed time of 04:00 we departed back into the forest, we had poorer views of the binturong again, in the same area; but much further along the side of the road, still feeding away. Then a very good Philippine slow loris sighting, we could see it coming out of the thick leaves of a tree around 20m high and then onto the main trunk, down the main trunk and onto some smaller but exposed branches. It was our best views of a slow loris so far. Carrying on we found evidence of a where a sun bear had ripped into a palm tree trunk to get at the honey, the power of the small bear all to evident by the destruction to the palm. All along the road were elephant tracks (heading towards the camp) and very fresh dung. We seemingly had just missed the elephants as they came down the road towards the base camp. Fresh leaves, branches and torn pieces of grass littered the road, all signs of feeding and travelling elephants at some point since it stopped raining.

Our next sighting as a barred eagle owl perched high on a large branch, it was an adult (we had seen a juvenile in Tabin). Then a Malay civet quickly ran across the road, not giving us very good sightings, followed by the driver spotting a leopard cat sitting in the cab of one of the forestry departments' bulldozers. It had gone by time we got there, but if we had got a picture, what an advert for the sustainable forestry being done here. Just before sunrise we spotted a pied fantail in a nest just next to the road.

As the sun rose we got out and walked a ways down the track, particularly looking for birds but also coming across a huge number of fig trees all about ready to fruit, the green fruits were only a few days away from ripening and if that happened whilst we were still here, there was a chance for sun bears (which hadn't been seen here for a long time now – their movements and activities are heavily dependant on the unpredictable masting events of the lower dipterocarp forests here in South East Asia.

The first sighting this morning was a female sambar deer bolting across the road an away from us, but it was the early morning birds that dominated the early part of the walk. Greater-racket tailed drongo, brief views of a pair of white-crowned hornbills (the last species we needed to complete the Borneo set) overhead, black hornbill, olive-backed sunbird, spectacled spiderhunter, bronzed drongos, blue-crowned hanging parrots and sooty-capped babblers were all seen this morning. Then we found a tree in fruit and in the tree no less than three orangutans, a mother and two offspring, one around 5-6 years old and climbing freely on its own and a second one (probably around 6 months old) still clinging steadfast to its mother as she climbed down the tree, sliding her way down the main trunk, the older offspring grabbing hold of her and she took them both off and out of sight. As we walked on (to another mother and baby orangutan) we sounds of a female great argus pheasant punctuated the air, the male's call coming shortly after from the other side of the road. This new mother orangutan was also feeding in another fruiting fig tree and her 4 year old offspring was close at hand. At this point the vehicle came and picked us up and we turned around. Before getting back a bearded pig ran over the road and a pair of red langurs came leaping over the road from one tree to another. The jump must have been 10m and was very impressive to watch, it was a shame that there were only two (or they were the last two in the troop) as by the time we were ready to get a picture of the next monkey to make the jump, there were none. But the highlight of the way back were the birds, particularly two small flocks of Asian fairy bluebirds, seen well as they foraged and flew back and forth across the road and from tree to tree. We also had a fly over from a large wreathed hornbill an distant rhinoceros hornbills as well as good views of white-bellied woodpeckers, hill mynahs, greater green leafbirds, dusky munias, black-headed bulbul, streaked oriole, plaintive cuckoo, whiskered treeswift and greater cocual. The only non-bird sighting for the rest of





the journey back to camp (and breakfast) as a basking rough-necked monitor on the side of a tree soaking up the morning rays.

Once we were back we had breakfast and then retired to our rooms for a sleep as we would be out again tonight for a full 7 hour nocturnal spotlighting session.

After dinner we departed for our first full night spotlighting, not surprisingly as the trees were still full of fruit here our first sighting was the same young binturong feeding near camp B (just a kilometre or so from our accommodation), in the same tree and also feeding was a small-toothed palm civet (the first of many seen tonight – a total of 9 recorded). Further along we had our first colugo sighting of the night, great views of this one climbing up a tree trunk and into the smaller branches where it started to feed. They feed off sap from the tree and use chisel like incisors to gouge chunks from the bark to release the sap. Like this morning and we wouldn't be stopping very long for red giant and Thomas's flying squirrels as we have seen many of these species. However after some Thomas's were spotted along with more small-toothed palm civets (one on the ground crossing the road which is rare to see) and a roosting rhinoceros hornbill we I have great views of a red giant flying squirrel gliding over the road just behind us. Mike as ever was quick on the spotlight and got us all around to see it gliding, the membranes all fully extended and the tail being used as a rudder to steer the squirrel to the next tree. A second colugo was seen hanging upside down from a branch, again we had great views of this very unusual animal. As we were watching the colugo Mike spotlighting a tiny Hose's pygmy flying squirrel gliding over the road, with the shout Martin and Jess were able to get views. Being the same size as many of the insectivorous bats around here it is only the direct motion that attracted attention and then once we could see it, it was easy to see the membrane and tail.

We then saw our first leopard cat of the night, having pretty good views of it on the side of the road, patrolling along looking for prey. We then had another great colugo sighting, this one took off and glided to another nearby tree, we could now compare the membranes of the flying squirrel earlier and the colugo and with the membrane coming out to every extremity on the colugo it is easy to see why this animal is the king of the gliding animals. A second (but briefer) view of a leopard cat came shortly after and we then found a fruiting tree being utilised by a small group of large flying foxes. Then the highlight of the night (in terms of species – as it is hard to beat seeing a colugo glide), a banded palm civet on the road. For the next 5 plus minutes we watched as the male civet came closer and closer to the vehicle. Walking purposefully into the grass, then out, then down to a small puddle on the side of the road, then back up to the road, back to us and then away behind us. With him being between 1 and 7m away the entire time we were treated to fantastic views of possibly the most beautiful of the civet species here in Borneo, as he foraged, nose to the ground in search of food. Before we turned around and began our journey back down the 27km we had travelled from base camp we spotted another new mammal for the trip, a black flying squirrel feeding in a tree a little set back from the road.

On our way back we spotted several sambar deer (all females or fawns), more small-toothed palm civets, both red giant and Thomas's flying squirrels and a fourth colugo. It rained heavily for around 20 minutes and then some light rain for another 15 minutes but nothing like last night which was lucky. There were many fireflies around tonight with a few landing on us allowing us to have great close up views of these illuminating bugs. The drive back was a little quieter with a leopard cat crossing over and walking up the side of the road being the only major sighting along with excellent views of a bat (most likely a trefoil horseshoe bat) hanging from an exposed branch close to the road whilst it scanned the surrounding area for prey, its ears and head twitching and moving in all directions to pick up the tell-tale sign of passing insects. We arrived back at around 01:40 and went to get some sleep, we would be doing the same again tonight as our quest for a clouded leopard continued.

---

## Day 11 Deramakot Forest Reserve

## Wildlife Watching

Today we had breakfast at 9am (for those who didn't want to carry on sleeping) and then convened properly at 1pm for lunch. Before it rained a little this afternoon the weather was very hot, the sun beat down on us from a nearly cloudless sky. After lunch Mike and Martin went around 4km away from the camp to a small trail to set up a couple of camera traps, maybe we would get footage of a clouded leopard or some other cool animals as they moved along the game trail. On the way back they found a 2m long beautiful white-bellied rat snake in the middle of the road.

Then after dinner (at 19:00) we departed for another night drive into the forest. We found the (now resident) binturong feeding in the same area near camp B and then a buffy fish owl perched on a low exposed branch next to the road, but we carried on after a quick look. Like last night we would not spend too long on the fly squirrels and palm civets that we had seen many of over the course of the trip. We would spot them to identify them and then move on in many cases, our targets set at more elusive mammals now. Early on along the road we found a greater mousedeer and had some fantastic views of it in the open on the road, walking back and forth across the road and along the sides around 20m in front of us. Driving on we had a brief leopard cat on the road, some Thomas's and red giant flying squirrels and a couple of colugos. Including a rare red morph (like we had seen in Danum Valley), we were doing exceptionally well with colugos on this trip. Then the storm hit, it made the other rains we had been caught out in look like short showers. The thunder was intense and echoing off the forest, the lightning lit up the skies like it was the middle of the day, the distant light show sometimes lasting 5-6 minutes at a time. But it was the rain, it chucked it down and for 1.5 hours we were quite wet. Sightings dried up during this period, even though Mike



never stopped looking and we hoped for maybe otter civets which love the torrential downpours as they come to the side of the roads (where the water flows like a small stream) to try and catch frogs that come out of the forest to take advantage of the rains. However our only sightings during the rains was a large male sambar (with a very nice rack of antlers), a small –toothed palm civet and Thomas's flying squirrel. We then arrived at the forest reserves second major base camp, on the banks of the Kinabatangan River we stopped and took shelter in a large building, had some tea, coffee and cake and dried off a little. We were not the only ones using the building, many Asian house geckos and a couple of pouched tomb bats were also using the building to find food and keep out of the rain. At 22:30 the rain stopped and we departed to make the 30km (3.5 hour) journey back, what we would see fresh after the rains was unknown but we were as confident as ever, every time you enter a tropical forest after dark a wealth of wildlife delights can await you and we hoped for something special. We found various large flying foxes feeding in the tops of trees and flying above us. Having seen a flying squirrel and a colugo gliding and having great views from underneath the flying foxes it is easy to see the differences and similarities between these mammals as they take to the air, the skin flaps in between the limbs and the bats wings forming the same principal function, but in very different ways. Borneo seems to a place where mammals enter the skies like nowhere else on Earth.

Carrying on we found a common palm civet on the ground, another colugo and then a pair of Wallace's flying frogs. At this time of year they come down from the trees to find a muddy puddle (usually just off the road) to breed and we found a couple in the low tangle of branches, wild ginger and vines nearby a puddle. We spotted a third a little ways away too along with brief views of a Malay civet, a few more leopard cats patrolling the sides of the road and many flying squirrels. But the highlight of the night came when we started to see lots of vegetation scattered on the road, ripped and torn leaves, grass stems, huge round footprints in the mud. A large group (the group around here is some 50 strong) of Asiatic elephants had very recently been here. We sped up to see if we could find them on the road. We didn't find the large contingent of the group, but we did find two 'teenagers' and a younger one (maybe 4-5 years old) just off the side of the road feeding. One of the teenagers was a male and clearly full of hormones. He was very vocal about us, trumpeting away, swinging his head back and forth, lashing out with this trunk to the grass and bushes, mock charging (always away from us) and stomping the ground with his forelegs. He was asserting himself, learning the combative techniques needed when an adult bull. But he was not confident enough to actually charge at us, even mock charge at us. So we watched as he would go through the motions of trying to scare us off and then turn tail and run along the road back towards where the rest of the herd was (trumpeting as he went). We followed them, with only this one adolescent visible on the road now for a few hundred meters and then he found his mother. She was just off the road and already the younger elephant was by her side, she was very relaxed and didn't even turn around to see us. The change in behaviour from the young male was clear, he relaxed around his mother and we drove passed them. He stared at us and gave one last trumpet as we passed, but what a great sighting, to see the elephants well in the dark and have this young male give a full exhibition of elephant aggression behaviour (but completely safely as he was far too young, scared himself and inexperienced to actually cause us any problems).

The last sighting of note before we reached the accommodation was a banded civet moving along the road and then out of sight (possible the same as we saw last night as it was in a similar area) and then a final leopard cat. Once back we got some sleep and would repeat the venture tomorrow, but possibly headed out earlier for dinner at the river so we would be closer to the far end of the trail earlier to see if that makes any difference.



## Day 12 Deramakot Forest Reserve

## Wildlife Watching

Today would be a little different from the other days here, we had breakfast at 9am as normal and then lunch at 13:00 but after 15:30 we departed for the Kinabatangan River camp. We would drive the 30km to see if we could find some diurnal wildlife and then have lunch at the river before starting our night drive from there.

Along the way we found the same young binturong, he was in the exact same place we had seen him settling down to sleep early this morning. In the main trunk fork of a large *ficus* tree. He was staring at us as we got great daytime views. We then spotted a crested serpent eagle soaring low down above us before it started to rain. The clouds ahead were heavy and ominous. The rain pelted down and as we still had around 3 hours to go (just to get the river) we decided to abort the plan for tonight and go there for dinner tomorrow, instead we would have dinner back at the main camp and head out after dark once again.

So that is what we did and after dinner we drove the opposite way we had done previously, instead of going out towards the river we went towards the main entrance to the forest reserve. Both directions were equally good for



clouded leopards and other wildlife as Mike had seen numerous on both sides of the camp and it would be good to switch it up a little and see a different part of the forest. The first sighting was a large snail half way up a tree and that was the only sighting for a while, it would appear that this direction was very quiet tonight. The rain started to spit a little and we wondered if we would be in for another very wet night again. But it abated and stayed dry all night long, much to our delight.

Our first mammal was a feeding small-toothed palm civet in a tree followed by a leopard cat crossing the road. All in all the sightings tonight were mostly of animals we had seen lots of previously, but they were often much better and closer sightings than we had already had. So we were able to see excellent views and some great pictures. The first of these opportunities came with a beautiful Thomas's flying squirrel, very low down and feeding on the bark of the tree. Nearby there were some large flying foxes feeding on fruit, one hanging very low down and letting us see it very well. Whilst looking at the flying fox a common palm civet crossed the road and disappeared into the thick bush, maybe also going to enter the same tree and start feeding. When the large trees are in fruit it is not uncommon to see multiple species feeding in the same tree. Then we had a new mammal for the trip, a pencil-tailed tree mouse, most likely the large pencil-tailed tree mouse due to its size and colouration. It was quick and ran around a tangle of vines and branches just off the road before vanishing out of sight. Next we had great views of a Philippine slow loris, the first of a few tonight and then another trefoil horseshoe bat hanging upside down on a branch searching for prey with its ears and nose, twitching this way and that incessantly.

After a short coffee break on a narrow road that had been blocked off by a fallen tree we turned around and headed up another road towards the grand sounding 'White House'. Along the way we had nice views of a larger and nicely patterned diadem bat hanging and scanning in the same way as the trefoil horseshoe bat had done. Then the second slow loris, even better views this time as it slowly and surely moved along an open branch. Then something very rare; a first for Mike! A large frogmouth, perched on a very exposed branch just off the road, maybe 5m away and we watched it for a while before it must of got bored with us and flew off and away. This was an animal Bobbie had been very keen to see and it was great to see one, especially after Mike had said earlier that he had never seen one and had had awful luck with them previously.

Further along the road to the white house we found a crested garden lizard sat on a fern frond, the green head and body almost perfectly camouflaged and the extremely long, thin reddish tail looked like a tendril coming down. A superbly adapted lizard to its habitat. A third slow loris was then sighted along with a Thomas's flying squirrel and then a loud trumpet from the forest next to the road gave us all a start. We could hear the movement of the elephants and one or two trumpets but they remained hidden in the dense forest and we didn't see them tonight. Common palm and small-toothed palm civets were also spotted, but we didn't spend too long looking at them as we carried on towards the house and where we would turn around. Before arriving we had nice views of a very pretty striped bronzeback snake curled around some thin branches next to the road and at the white house we found a lesser mousedeer out in the open and had some nice views.

After a second short coffee break we continued and found a buffy fish owl in a roadside tree holding a frog in its talons. This was the third buffy fish owl we had seen on this trip that was holding something to eat, none of them had been a fish. The first was a rat, the second a snake and now a frog, we were beginning to wonder if they ever lived up to their name sake. The owl transferred the frog to its mouth and hopped to another branch before flying away. There were more flying foxes around and we had some very good views from right underneath one, watching its wings flap and the effortless way it moved from one side of the forest to the other in search of fruit with its fantastic sense of smell. Using its nose and good eyesight instead of echolocation to get around. It was a good stretch of road for buffy fish owls as we found a pair in the same tree, they didn't hang around as long as other owls though and took off after a few moments.

On our way back we didn't have any new species sighted and we didn't have any exceptional views of animals we had seen previously, but it was not uneventful as we had 2 more leopard cats on the road and one tree contained three small-toothed palm civets all feeding. But alas it was another night without the now near mythical clouded leopard. Despite this forest being the undisputed best place in the world to see the Sunda clouded leopard (and many people do see it), it is still a very elusive animal and it is not uncommon to fail in this task. However we still had two full nights, around 14 hours of spotlighting, so it wasn't panic stations just yet, but moral had dipped a little at this stage as a dry night had been what we hoped for, to increase our chances, but to no avail tonight.

---

## Day 13 Deramakot Forest Reserve

## *Wildlife Watching*

Today we set off for the river (to have dinner there) at 15:30 and almost immediately the predictable binturong was spotted sleeping in the fork of the same tree. We didn't disturb him and carried on down the road and into the forest. The skies were blue and it was very hot today, it didn't seem like rain was going to curtail this days trip to the river. Not long into the drive we found a small group of elephants (the same as the saw the other night), with 2 adults and a couple of younger ones (around 4-5 years old) and then the teenager who was showing off to us the other night. He was doing the same stuff today, we watched as he waved his trunk around, kicked up dust, trumpeted and mock charged us. He ran after us down the road, we didn't go very far and he kept a good distance between us. It was funny seeing him get more and more confident as he got a little closer every time, but he was never closer than 10m away. Watching his bravado was funny and interesting. He would disappear back into the bushes with his mother





and the other elephants and then come thundering out, run down the road at us, trumpet and then turn and run back to the safety of his mother, swinging his head and trunk from side to side as he went.

Continuing on we had nice views of an oriental honey buzzard, we had other nice bird sightings including little spiderhunter, Asian fairy bluebirds, bronzed drongos, pied fantails and a crested goshawk flying quickly over the road. We also had some nice hornbills with bushy-crested and wreathed both being seen flying over the road. We then had a fleeting glimpse of a gibbon in a roadside tree, it is unusual to see gibbons in the afternoon as they do not call at this time of day and tend to be sleeping in the late afternoon. We stopped for so did the gibbon and the tree was too dense to pick him up again. Then we found an unflanged adult male orangutan high in a tree, he was not particularly happy with us and bared his teeth and rocked the branches at us vigorously, before retreating into more thick foliage and out of sight.

Then the clouds ahead darkened and it began to rain, not as heavy as other days but a decent rain shower before we got to the Kinabatangan River camp. Before arriving there we spotted a rhinoceros hornbill in the distance and then a large flanged male orangutan low down sheltering from the rain in a thick tree very close to the camp. We had dinner here and watched a pouched tomb bat coming inside again foraging for insects, skilfully navigating the open windows and doors at breakneck speed.

We then headed back out at 20:15, the first sighting was a very brief Philippine slow loris, followed by a common palm civet crossing the road and various flying foxes feeding on figs in the trees. There were also lots of flying squirrels around today, we spotted 14 Thomas's flying squirrels and 3 red giant flying squirrels tonight. Before we stopped for coffee down a very narrow and overgrown logging road we spotted our third moonrat of the trip. Crossing the road and spending a fair amount of time on the road before carrying onto the other side. Turning around and heading back to the main road we found a small-toothed palm civet and also had great views of a very close by file-eared frog. We could see its zebra striped legs and intricate patterning on its flanks, it was not the only amphibian of the night as we found a breeding puddle for the large Wallace's flying frogs, no less than 5 frogs were seen in the leaves of a bush overhanging the puddle, with one frog in the water, only its head emerging from the muddy puddle. The third amphibian of the night came with a harlequin flying frog on one of the logged trees in a small clearing.

Then the sightings dried up a little, there was some light rain around 00:10 and for an hour or so we only spotted a buffy fish owl, common palm civet and Thomas's flying squirrels. We did find a roosting site for a beautiful jambu fruit dove before a long-tailed porcupine crossed the road right in front of us. We had great views of this species, the second porcupine of the trip and it is very different in appearance to the thick-spined and Malay porcupines that also inhabit the forests of Borneo. After some more small-toothed palm and common palm civets we had magnificent views of an oriental bay owl just next to the road. The owl remained perched for a prolonged period and allowed us great views of picture opportunities. Our last sighting of the night was a Malay civet crossing the road and giving us nice views as we headed back into the main camp of Deramakot and to our houses for some rest.



## Day 14 Deramakot Forest Reserve

## Wildlife Watching

Today was our final night in Deramakot and our last chance for the clouded leopard, we certainly gave it our all over the last few nights and it was not for lack of trying, our effort (particularly that of Mike) was great and we were just unlucky with this species (but incredibly lucky with others) so far. So we went out just before sunset and straight away found our friend the binturong, sleeping but in a different tree today. It was pretty quiet until around 19:30 when we started to see the usual cast of Thomas's flying squirrels coming out from their holes in the trees to start a night of feeding on bark, sap and fruit. It was a wonderfully clear moonlit night and we found another guardian frog on the road before a pied fantail settled down for the night in its small nest on the side of the road.

We then had fantastic views of the last large owl species of Borneo, the brown wood owl, perched just next to the road in an exposed tree. Then came views of a Malay civet crossing the road and in the same tree as the other night a jambu fruit dove, but this time the dove was joined by other members of its species. This is a pretty rare dove to see and so Mike was very pleased to have found a roosting tree used more than once and hopefully in the future too. We then found some lowland pitcher plants on the side of the road, these strange carnivorous plants are commonly found in the upland areas and the many species have a myriad of relationships with animals, some trap ants and other insects and dissolve their bodies for food, some provide homes for bats and feed off their droppings, some even provide sweet food for treeshrews which then cause the treeshrew to have diarrhoea and defecate inside the plant, which is then consumed by the plant. It was nice to see one species whilst in Borneo the land of the carnivorous plants.



We then walked up the game trail to collect Martin's camera traps, we had a short-tailed mongoose caught on the camera but nothing else. Along the way up we found a moulting grasshopper, a cordyceps fungi which had infected a small species of moth and had erupted from its body to release its spores. This is a group of fungus which needs its spores to be inhaled by an animal, usually invertebrates, It then infects the host animal, travels to its brain and 'takes over' control of the animal. The fungus often tells the animal to climb somewhere tall or prominent where the spores would be easily spread by the wind. In affect the fungi causes the host to become a zombie and through mind control makes the host do exactly what the fungi needs to survive. Once the host is in a high location (top of a grass stem, branch or exposed leaf) the fungi erupts from the head or body of the host and releases its spores to find another unsuspecting host and continuing its life cycle.

We then got back into the vehicle and continued, we found a group of 4 elephants (possibly the same as we had seen previously, but there was not one angry teenager with them this time), we followed them down the road until they veered off and crashed through the forest away from us. We then turned around, our time spotlighting and wildlife watching in Borneo very nearly over, we had seen a huge number of animals and a great diversity of species and the trip had to be regarded as a success, despite failing on the clouded leopard. Before we did get back to the base camp we had a nice view of another Malay civet crossing the road and a Philippine slow loris in a tree climbing around followed by a brief common palm civet on the road and a distant leopard cat on the side.

So we returned to our house, went to bed and tomorrow we would be travelling back to the hustle and bustle of Sandakan to relax before our long journeys home began.

---

## Day 15 Labuk Bay & Sandakan

## *Travelling & Wildlife Watching*

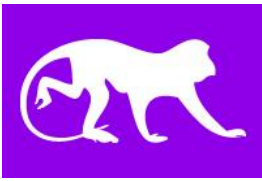
Today we had a relaxed morning and after breakfast departed at a rather civilised 9am. We drove back through the forest towards the entrance and saw a young male sambar deer dart across the road and a troop of southern pig-tailed macaques feeding in the trees just off the road. We were then in the all too familiar and depressing oil palm plantations, for the next 4-5 hours of driving (first to the town of Tepulid to have lunch and change from the 4x4 vehicles to a minibus and then on the highway to Labuk Bay), we passed through a never ending procession of palm oil trees. As far as the eye could see on both sides of the road, it is amazing to think that there are any animals left at all in Borneo with this level clearance for palm oil. Deramakot stands as a beacon for the results that can be achieved through sustainable and reduced impact logging, for decades the forest has been utilised for timber and resources and for decades the animals here have been recorded in higher densities than other primary or protected forests. the evidence is there, with the correct long term management but people, industry and wildlife can prosper. It was a little different at Labuk Bay (our first destination today), this is a palm oil plantation where the owner has left a section of mangrove forest intact and the population of proboscis monkeys here are now protected and their diet supplements, and with the aid of boardwalks people can come and see this very strange monkey very close. Martin (possibly in vane) hopes that other managers of palm oil plantations see that this guy makes a lot of money from the tourists coming to see his wildlife and it costs him relatively little in maintenance (as he doesn't need to do anything with the forest, just maintain the boardwalks and buy fruit), and maybe other plantation owners will star to keep some of their land free from palm oil and develop eco tourism. It is not the overall answer to Borneo's wildlife and environmental issues, but it is a small positive and perhaps a start.

So we arrived here and went straight to the feeding platform, we were just in time and watched as the group of around 50 proboscis monkeys fed on the platforms and walked around on the boardwalks and rails in between the people. There were also some long-tailed macaques, throughout Asia where there are macaques they have an uncanny knack of knowing where people and free food are. We stayed here for a while and watched the interactions with the mothers and babies and particularly the alpha male of the group. A very large and imposing animal with a really pendulous nose. He was on look out for the other males, the subadults who he was chasing off, he would come bounding (sounding like a charging rhino on the wooden planks) across the boardwalk and jump high of the railing into the trees and chase the other males away. Belching and baring his teeth in aggression. Even not being fluent in proboscis monkey everyone there knew quite clearly who was in charge.

Other than the proboscis monkeys and long-tailed macaques we spotted a couple of ear-spot squirrels, mudskippers and fiddler crabs in the mangroves, before carrying on to Sandakan and our hotel for the night.

On arrival we checked in and relaxed until dinner, our farewell meal together, Martin was heading home tomorrow whilst everyone else was staying on another night or two before departing for home.





---

## Day 16    **Sepilok & Sandakan**

## *Wildlife Watching*

This morning Jess decided to stay in bed and rest whilst everyone else had an early breakfast and departed to Sepilok, there was a slight problem with the vehicle and the driver and so Martin stayed behind to rectify this (as he needed to also make sure his airport transfer later today would not be affected), and Monty, April and Bobbie went to Sepilok. As always with Sepilok the orangutans were on show, a couple (a mother and baby) came down to the feeding platform and the young orphans in the nursery were around, learning from their handlers and each other the skills needed to one day be a re-wilded orangutan here or maybe in Tabin. They also visited the sun bear sanctuary and saw a few different bears moving around the trees, looking for their food which is hidden in the trees and around the forest so that they have to find it as they would in the wild. Again these bears were rescued and rehabilitated to being wild bears and 4 had already been released into Tabin with plans for more.

There were also some birds around, however there were no new species to record from today and after a few hours they returned to the hotel, met up with Jess and Martin. Had some lunch and then said their goodbyes to Martin as he would be leaving for the airport to return home.

All in all a good trip, a record breaking number of mammals for a Royle Safaris single tour and some incredible sightings, such as the numerous elephant encounters, the huge feeding male orangutans, gibbons so close by and in camp, many wonderful leopard cats, a very unafraid banded civet and of course the marvellous marbled cat in the open and very close by for a prolonged period. What a fantastic trip, Borneo is a magical place for wildlife.





31	Malay stink badger	<i>Mydaus javanensis</i>
32	Whiskered myotis	<i>Myotis mystacinus</i>
33	Ridley's myotis	<i>Myotis ridleyi</i>
34	Proboscis monkey	<i>Nasalis larvatus</i>
35	Dark-tailed tree rat	<i>Niviventer cremoriventer</i>
36	Philippine slow loris	<i>Nycticebus menagensis</i>
37	Masked palm civet	<i>Paguma larvata</i>
38	Common palm civet	<i>Paradoxurus hermaphroditus</i>
39	Marbled cat	<i>Pardofelis marmorata</i>
40	Hose's pygmy flying squirrel	<i>Petaurillus hosei</i>
41	Red giant flying squirrel	<i>Petaurista petaurista</i>
42	Bornean orangutan	<i>Pongo pygmarus</i>
43	Hose's langur	<i>Presbytis hosei</i>
44	Maroon langur	<i>Presbytis rubicunda</i>
45	Sunda leopard cat	<i>Prionailurus javanicus</i>
46	Large flying fox	<i>Pteropus vampyrus</i>
47	Malaysian field rat	<i>Rattus tiomanicus</i>
48	Cream-coloured giant squirrel	<i>Ratufa affinis</i>
49	Bornean horseshoe bat	<i>Rhinolophus borneensis</i>
50	Creagh's horseshoe bat	<i>Rhinolophus creaghi</i>
51	Philippine horseshoe bat	<i>Rhinolophus inops</i>
52	Large-eared horseshoe bat	<i>Rhinolophus philippinensis</i>
53	Trefoil horseshoe bat	<i>Rhinolophus trifolius</i>
54	Pouched tomb bat	<i>Saccolaimus saccolaimus</i>
55	Asian house shrew	<i>Suncus murinus</i>
56	Muller's giant Sunda rat	<i>Sundamys muelleri</i>
57	Horse-tailed squirrel	<i>Sundasciurus hippurus</i>
58	Low's squirrel	<i>Sundasciurus lowi</i>
59	Bornean bearded pig	<i>Sus barbatus</i>
60	Asiatic wrinkle-lipped free-tailed bat	<i>Tadarida plicata</i>
61	Sundiatic silvered langur	<i>Trachypithecus cristatus</i>
62	Lesser Oriental chevrotain	<i>Tragulus kanchil</i>
63	Greater Oriental chevrotain	<i>Tragulus napu</i>
64	Long-tailed porcupine	<i>Trichys fasciculata</i>
65	Malay civet	<i>Viverra zangalunga</i>

		*				1									
					~10	~10	3								
			1	~20											
~74	44	~87												~60	
		1													
			1					1		3	1	1			
	1			1											
	1		6	4		1	1		2	1	2	3	1		
							1								
									1						
				3	1			2	7	3	1	3	2		
	1	1	2	4	1	*	1		5			3			3
			1												
					9		~20			2					
			3	2		2			3	5	3		1		
			1	7						5	~10	4	1		
			2												
				1											
~10	4	4													
	3														
			1,000's												
			~20												
						2			2		1				
										2		1			
			1												
												1			
						1			1						
12	11	13	2	10			1		1				1		
			1,000,000												
5	~10	24													
	1	1									1				
							1		1		1				
													1		
			2	1		1	1		2	1			1	1	

**Birds** (\* = heard or signs only / CT = camera trap only)

	Common Name	Binominal Name
1	Yellow-breasted warbler	<i>Abroscopus superciliaris</i>
2	Crested goshawk	<i>Accipiter trivirgatus</i>
3	Wrinkled hornbill	<i>Aceros corrugatus</i>
4	Javan mynah	<i>Acridotheres javanicus</i>
5	Common sandpiper	<i>Actitis hypoleucos</i>
6	Green iora	<i>Aegithina viridissima</i>
7	Edible-nest swiftlet	<i>Aerodramus fuciphagus</i>
8	Germaine's swiftlet	<i>Aerodramus germani</i>
9	Black-nest swiftlet	<i>Aerodramus maximus</i>
10	Mossy-nest swiftlet	<i>Aerodramus salanganus</i>
11	Crimson sunbird	<i>Aethopyga siparaja</i>
12	Blue-eared kingfisher	<i>Alcedo meninting</i>
13	Brown fulvetta	<i>Alcippe brunneicauda</i>
14	Grey-cheeked bulbul	<i>Alophoixus bres</i>
15	White-breasted waterhen	<i>Amauroni phoenicurus</i>
16	Oriental darter	<i>Anhinga melanogaster</i>
17	Bushy-crested hornbill	<i>Anorrhinus galeritus</i>
18	Oriental pied hornbill	<i>Anthracoceros albirostris</i>
19	Black hornbill	<i>Anthracoceros malayanus</i>
20	Asian glossy starling	<i>Aplonis panayensis</i>
21	House swift	<i>Apus nipalensis</i>
22	Spectacled spiderhunter	<i>Arachnothera flavigaster</i>
23	Little spiderhunter	<i>Arachnothera longirostra</i>
24	Great egret	<i>Ardea alba</i>
25	Intermediate egret	<i>Ardea intermedia</i>
26	Purple heron	<i>Ardea purpurea</i>
27	Great argus	<i>Argusianus argus</i>
28	Jerdon's baza	<i>Aviceda jerdoni</i>
29	Large frogmouth	<i>Batrachostomus auritus</i>
30	White-crowned hornbill	<i>Berenicornis cornatus</i>
31	Maroon woodpecker	<i>Blythipicus rubiginosus</i>
32	Buffy fish owl	<i>Bubo ketupu</i>
33	Barred eagle owl	<i>Bubo sumatranus</i>
34	Eastern Cattle egret	<i>Bubulcus coromandus</i>
35	Rhinoceros hornbill	<i>Buceros rhinoceros</i>
36	Striated heron	<i>Butorides striata</i>
37	Plaintive cuckoo	<i>Cacomantis merulinus</i>

August																
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
														1		
1	1											2				
	2	2		1												
	7		2		2									1	2	
			1													
							2			1		1				1
			~100,000+													
	4	6														
			~100,000+													
			100,000+													
	1										1					1
2		1					1									
							3									
							1			1		2		2		
		2		1										2		
1	2	2	1													
	10											1				
7	14	30	1	4		6						4		2	1	
	5	4	1	2					1							
				1												2
					3	~10	~5	2	~10	~10	2	4				
									1							2
				1						1		2				
	4	9												1		
8	4	16														
2	10	12	2													
									*							
	1															
											1					
			*						2							
						3										
4	1		1							1	3	1				
				1					1							
~20														~20		
2	*	4		4		4		1	3			1				
	1											1				1
							1	1		1						









