









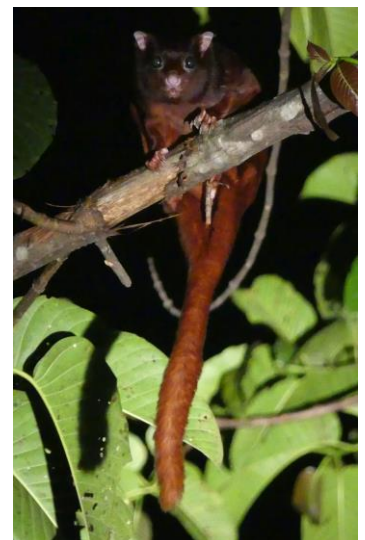


Borneo's Rare Mammals

Destinations: Deramakot FR, Kinabatangan River, Tawau Hills NP: Sabah, Borneo

Duration: 15 Days **Dates:** 19th August – 2nd September 2018

-  Finding a new record for Sabah in a Kayan Slow Loris in the Tawau Hills
-  Adding more new specie records to Tawau Hills than a team of 40 scientists
-  Spotlighting some rare mammals such as Sunda Stink Badger & red morph Colugo
-  Three pairs of Bornean orangutan mothers and babies in one river boat safari
-  Seeing 98 species of birds including a flock of 7 Borneo Bristleheads very well
-  Enjoying the amazing expertise of Mike and Shavez in Deramakot and Tawau
-  Observing a total of 66 species of mammals including the rare Collared Mongoose
-  Spotting a range of reptiles with the highlight being a large Asian giant tortoise
-  Spotlighting a Binturong in a large fruiting fig tree on the Kinabatangan River
-  Seeing a few large male Orangutans in Deramakot & Proboscis monkeys in Sukau



Tour Leader / Guides

Martin Royle (Royle Safaris Tour Leader)
 Mike (Deramakot & Tawau Guide)
 Dankut (Deramakot Driver)
 Rossman & Zule (Kinabatangan River Guide)
 Shavez (Tawau Guide)
 Dr. Andrew Hearn (pre-trip planning)

Participants

Ms. Lesley Cupitt
 Mr. Miles Foster
 Mr. Peter Hobbs
 Mrs. Ingrid Statman

Ms. Anita Ericson
 Ms. Julija Grinberga
 Mr. Chris Scharf

Overview

- Day 1:** Sandakan / Deramakot Forest Reserve
- Days 2-6:** Deramakot Forest Reserve
- Day 7:** Deramakot Forest Reserve / Kinabatangan River
- Day 8:** Kinabatangan River
- Day 9:** Kinabatangan River / Tawau
- Day 10-14:** Tawau Hills Reserve
- Day 15:** Home



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.

This trip will focus on a small number of probably the most elusive, endearing and incredible mammals here. The cats; Borneo has five species of wild felid and all five species can be found in Sabah. They are all nocturnal, shy and (with the exception of the Sunda leopard cat) difficult to predict and see. However they are also some of the most intriguing and highly sought after species in the world. So we decided that we would bite the bullet and start a trip that focused on all 5 (Sunda Leopard Cat, Sunda Clouded Leopard, Flat-headed Cat, Marbled Cat and Bay Cat).

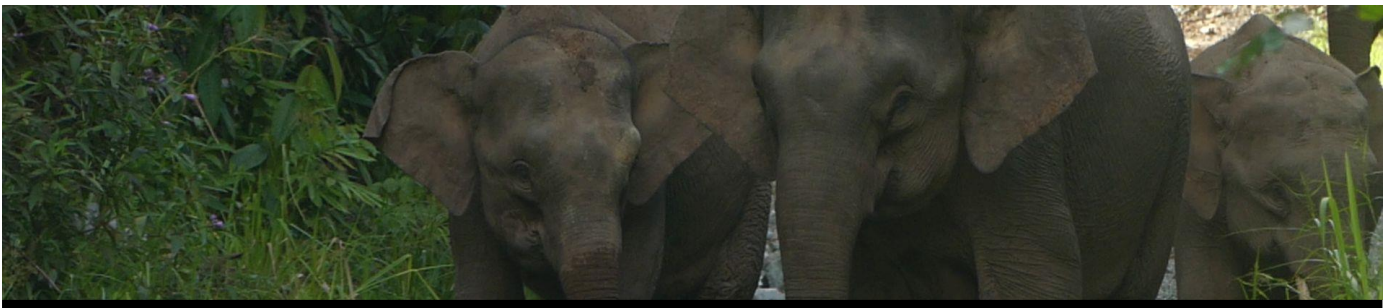
We knew that we would in all likelihood not see all 5 and in fact 3 of these five would constitute a trip of great success. But we would do our best and we had some expert help from local spotters, incredibly experienced guides and even advice and information from the leading biologist studying the cats of Borneo. All of this, some specialist equipment and a huge amount of luck would be needed in order to be successful. But if you do not try you will never be successful

So we set off with three different destinations in mind, firstly the wonderful and now famous sustainably logged reserve (low-impact logging) of Deramakot, which would produce Sunda leopard cat and hopefully either or both Sunda clouded leopard and marbled cat. We then would have a couple of nights looking for the semi aquatic flat-headed cat along the shores of the Kinabatangan River, before finishing in the forested hills of Tawau which has the highest density of bay cats so far recorded. However this 'high' density is still very low.

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.



Day 1 **Sandakan / Deramakot FR** *Arrival, Travelling & Wildlife Watching*

This morning most of the group arrived into Sandakan at around 9am. Chris was already in Borneo and made his own way to the airport to meet our driver Eric. Lesley, Peter and Julija joined Martin in their arrival this morning and after we had loaded the vehicle we went to collect Miles and Ingrid who had arrived a few days ahead and were staying at the Sepilok Nature Lodge. Anita had suffered unbelievable bad luck with her flights from home. Delayed and then cancelled and then her rearranged flight delayed. She would not be joining us until tomorrow at the earliest. We hoped she would be able to meet us in Deramakot in time for tomorrows night drive.

So the group as it was departed Sandakan and headed the 2 hours or so to the town of Telupid, here we stopped for lunch and met our guide for Deramakot and one of our guides for Tawau (Mike Gordon). We then headed off road and continued through the palm oil plantations until we arrived at forest. It was another couple of hours before



we arrived and settled into the guest houses here. Some of our group elected to go for a walk around the grounds to see if they could find anything, the drive up to the guest house didn't result in very much, a water monitor, an unidentified snake crossing the road, mammals included a lone southern pig-tailed macaque, long-tailed macaque and a plantain squirrel running swiftly across the road. We also saw several species of birds including dusky munia, barn swallows, spotted doves and large-billed crows.

But it was after dark and after dinner that our day would really start, for the next few days we would do our best to turn ourselves nocturnal in our quest for the wonderful cats of this stunning forest. We quickly spotted a buffy fish owl perched on the tennis court fence as we were leaving the accommodation complex. We drove down the road towards the entrance to Deramakot on this occasion and had a very nice Thomas's flying squirrel on a branch and feeding on the tree bark. The first of many Thomas's flying squirrels over the next few days. Nearby we found a Horsfield's short-nosed fruit bat (we had great views and clearly saw no white-markings on the ears) hanging close to the road before taking off and flying away, a little further along we had a large feeding group of short-nosed fruit bats feeding in a fruiting tree.

It started to rain, not too heavy but it did limit visibility. Just as it started we heard a rustling near the vehicle on the side of the road and spotted a large male bearded pig moving through the dense vegetation, later tonight we found another bearded pig inside the forest too. In between two Philippine slow loris (the first a good view the second very brief) we had another nice view of another Thomas's flying squirrel and this one was feeding on leaves.

The rain was starting to come down heavier now and we spotted a very hardy Sunda leopard cat sat in the open on the edge of a small clearing. Sat staring out into the small field in the rain and presumably looking and waiting for any prey (most likely frogs in this weather) to make a move. We watched for several minutes and the cat didn't move a muscle. On our return to the accommodation we passed by this area and Mike had brief eye shine on the side of the road, most likely this same cat again.

Other sightings tonight included a roosting crested serpent eagle, crested fireback and an ashy tailorbird and a couple of crested garden lizards (*Bronchocela cristatella*). We then returned to the accommodation and went to bed, for many today this was a long day as we had caught early morning flights from Kuala Lumpur to get here, tomorrow we would head out just before dawn.

Day 2 **Deramakot FR**

Wildlife Watching

This morning we were back on the road at 5:30am, our aim was to go and set up some camera traps and also use some specialist equipment we had brought to aid us in our quest for the elusive bay cat. We wanted to see if it would work and so were setting up a test here for the next few days.

We hadn't driven very far before we found a nice greater mousedeer, it was in a small open area near the road and we could see its pretty throat markings well before it disappeared into the long grass. We then walked into the forest around 2km to set up the camera traps. Along the way we were serenaded with the morning chorus of Bornean Muller's gibbons. Firstly their dawn territorial calls, spreading the message of where they are to all other gibbon families around and then on our way back clearly they had found a nice big fruiting tree as they were calling very excitedly. Mike got some brief views of them as they moved quickly down a gully and out of sight. There was also lots of elephant dung along the pathway, hopefully they wouldn't come along and destroy our cameras in their curiosity. We also heard the long call of a male Bornean orangutan as we hiked through the forest.

On our way back we came across a large feeding flock of rhinoceros hornbills, there were around 12 of them feeding in two or three different fruiting trees. We got some great views when they landed in an open tree but they were largely hidden from view. But the highlight of the morning was a very nice Asian giant tortoise on the pathway. We all must have walked straight passed it on our way up. The carapace was around 40cm in a straight line measurement and it was pretty relaxed around us, his front legs were mostly out of the shell and his head was exposed. However it was more concerned with the dozens of mosquitos all over its shell, head, face and around its eyes.

We then headed back to the accommodation, waited for Anita to join us and then after lunch departed for the Kinabatangan River and our afternoon / night drive.

Carrying on along the road towards the Kinabatangan River we had a crested serpent eagle fly over the road and perch nicely offering good views. On the road we started to see fresh elephant dung and lots of green grass that had been ripped out and left thrown around the road as they were feeding messily. Their tracks were everywhere, but heading in the direction we had just been in. They were heading ominously towards our camera traps, but there was nothing we could do about it now and carried on. Then as we rounded a corner we came across a young male elephant on the road, it didn't hang around very long and bolted into the vegetation on the side of the and whilst we could hear him trumpeting in the forest and see the movement of vegetation we couldn't see him and he didn't come back out.

Our next sighting of note was of the world's smallest raptor, the Bornean falconet. A tiny white falcon, this one was perched on a dead tree and gave us some nice views. We then watched a flock of 7 bushy-crested hornbills feeding on a couple of trees and flying away above the road. We watched one feeding on a hanging vine and plucking fruit from it, it was very agile for such a large and clumsy looking bird as it balanced on the thin hanging vine and fed.

Continuing on we had close up views of a the pretty whiskered treeswift perched next to the road and then we found a young female elephant grazing just off the road. Then a little further along we found the rest of the group. Six all



together, there was one fully grown adult and then youngsters of various ages, the youngest being around 2 years old and the eldest around 15. They went into the forest as we approached and so we drove ahead of them a little and waiting on the bend in the road. We were quiet and heard them making some calls inside the forest. One of them being the deep guttural cerebral rumble. This is a long distance contact call and it will have been to the lone female we had first seen. They clearly waited for her to catch them up and then they came back out on the road. The youngsters walking ahead and oblivious to us on the road until the adult arrived and spotted us. The unheard communication between them is incredible as they all stopped still and turned around and headed back off the road. After a couple more minutes they came back out onto the road and stopped again. It was obvious now that they wanted to continue down the road and not go into the forest so we carried on and left them to it.

Further along we had a pair of blue-crowned hanging parrots fly over the road, but they seem to melt and disappear into the foliage of the tree they land in. We did find a small flock of them a little further along, but again the views were quick and poor.

We then found our first orangutan of the trip, an adult flanged male in his newly constructed nest. He was very relaxed with us watching and lay down and started to fall asleep. In between bouts of sleeping he would pick some leaves and inspect them closely, touching them to his mouth (maybe picking ants off) and then using them as fly swats periodically.

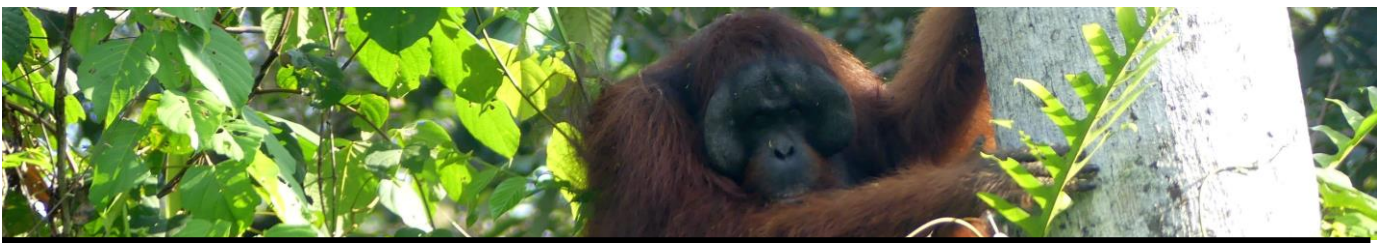
Nearer the river headquarters we had brief and poor views of a southern pig-tailed macaque and then a second orangutan, however this orangutan was in a very densely foliated tree and we only got glimpses of it climbing away at the back of the tree and away into the darkening forest.

We had a little break at the river and waited for it to get dark before heading back and spotlighting along the way. It was a quiet start to the spotlighting with low numbers of Thomas's flying squirrels and a brief Sunda leopard cat running out onto the road and then darting back into the vegetation. We also had a young female sambar deer just off the road and a sleeping Borneo striped palm civet before it rained. And my word did it rain, it was torrential for around 1.5 hours. Mike called it the worse rain he had experienced in Borneo and as Borneo is known for being a wet place you can only imagine the level of downpour we endured. The vehicle couldn't see where it was going at stages, Mike had to use the spotlight to guide the car around corners and we didn't see anything. In fact we were probably the only mammals out during the worse of it.

In the short lulls in the rain we did manage to spot a couple of Thomas's flying squirrels and passed by the family of elephants on the side of the road.

We made it back at around 11:30pm and were drenched to the bone, nothing appears to Borneo proof in terms of water proofs. We dried off and waited for it to die down and had dinner. It did die down around 12:30am and so we went back out for a couple of hours. It was still a little rainy as we spotted some civets, we had nice views of an island palm civet and a Borneo striped palm civet feeding on fruit in the trees. We had great views and watched as they climbed very nimbly through the branches, hanging by their back legs to grab dangling fruit. There were also many sambar deer around after the rain, many seemed to be young males. We had two further sightings of note, the first being a fruiting tree surrounded by many forest short-nosed fruit bats and a lone Borneo striped palm civet feeding; and also a mating pair of dark-eared treefrogs on a stick over a small roadside puddle. The female had already produced the foamy egg nest and the male was doing his best to fertilise the eggs in the hope that they will hatch and fall into the water underneath, however this puddle is a result of the rain and not likely to be there for very long. Our last sighting was the briefest of brief Malay civet near the worker's camp as it slipped into the forest and out of sight.

At around 2:30am we came back and went to bed after a long day, a good day with many sightings, but a long one and our beds were calling now.



Day 3 Deramakot FR

Wildlife Watching

Today we took it easy and didn't get out until 3:30pm and headed back towards the river. Another vehicle (a forestry vehicle) had seen a clouded leopard on the road close to the river headquarters last night and we wanted to try that area once again. It is always difficult to try in a place where a cat was just seen as there is nothing to say they will return, however it was worth a try.

Soon after we departed we had great views of a flock of 7 endemic Borneo bristleheads. They were perched on one side of the road in the trees and then flew over the road. We had some good views after they landed, they split up and some were harder to see (just silhouettes really) whilst others were much better to see, their bright balding heads standing out in stark contrast to the bright green leaves. There were some other great birds around from the road this afternoon including many silver-rumped spinetails & glossy swiftlets feeding over the road as normal;



whiskered treeswifts, bronzed drongos, scarlet minivets, ashy tailorbirds, a female violet cuckoo, blue-throated bee-eaters, yellow-bellied bulbuls and we also had good views of a Raffles' malkoha foraging through the leaves of a roadside tree.

Further along we found another large flanged male orangutan, however this individual was not as relaxed around us as the one yesterday. He quickly climbed down the tree trunk and into thick climbing vegetation wrapped around the trunk. The rain last night had felled a tree over the road, luckily we could get underneath the tree and carry on along the road, it was around here we found many tracks on the road of the rarest large mammal in Borneo, the very elusive banteng. There must have been around 5-8 individuals walking along the road sometime after the rain last night, but they were not on the road anymore. We did set up a camera trap in a likely location to capture this species if we were lucky.

For the rest of the journey to the river headquarters we found a long male southern pig-tailed macaque, a pair of black hornbills and a crested serpent eagle perched near the road. At the river we had many bats around including a medium sized fruit bat flying (possibly Geoffrey's rousette) as well as many other insectivorous bats, with the bat detector our best guesses for the larger of the two species seen here is lesser false vampire bats.

We then departed and headed back to the accommodation and spotlighted along the way, we were treated to some great views of the lightning in a very impressive thunderhead nearby, but we were lucky and avoided the rain all of the way, it only started to rain after we were already back and having dinner. The abundance of animals we saw on this dry night was far greater than the wetter nights with many Thomas's & red giant flying squirrels and several of both Borneo striped & Island palm civets. We had at least one very good view of each of these species, including a brief view of a Thomas's flying squirrel gliding away from us. We also saw several species of bats flying across the road, or very low over the road such as a least pipistrelle (according to best guess from the spectrograph).

A highlight of tonight was a group of large flying foxes over the road, they were flying back and forth and occasionally landing in a tree and we watched on in a tree feeding on fruit for a while. We also drove passed the elephants again as they were getting more and more relaxed around us. We then had a brief view of a banded civet in the forest, it was quite far into the forest on the top of a small slope and it had an easy escape route into the forest.

Back around the accommodation we had another buffy fish owl on the ground and a roosting blue-eared kingfisher before we made it back for dinner and as we had dinner the heavens opened again and so the consensus was to leave it for tonight and add on the missing couple of hours of drive to another drier night and we called it a night.

Day 4 Deramakot FR

Wildlife Watching

Today we had a relaxed day and then Mike, Martin and Chris (whose equipment it was in the forest) left to quickly check whether the rain had damaged our camera traps and other equipment in the forest.

Everything had survived in terms of being able to still work, however rain had caused them all to short circuit and stop working for a while. We don't know exactly when, but the camera traps did get a bearded pig coming the night we set them up and this was the only animal on the camera. So we left them there for the rest of the time and hoped for more luck.

So after dinner at 5pm we headed out and drove towards the entrance of Deramakot and into some of the neighbouring forest reserves and protected areas. Along the way and before it was dark Mike stopped to show us some pitcher plants that grow on the side of the road here, they are not the large ones nor is there the diversity of species here that there is up on Mt. Kinabalu, but they are a very interesting plant to see.

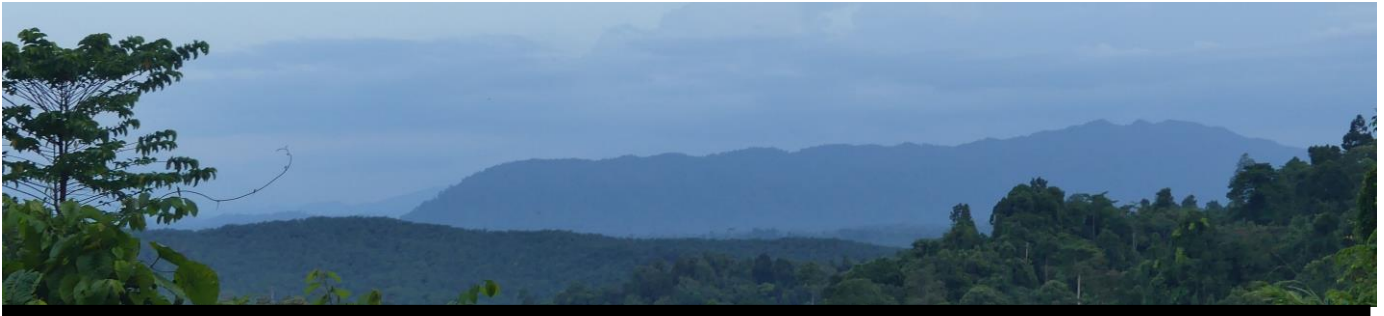
It was very quiet for the first hour or so, but it was only just getting dark. The first mammal we saw was a greater mousedeer just off the road and this was followed by a Sunda stink badger (now known to be more closely related to skunks than badgers) running alongside the road just ahead of the car before it disappeared into the thick vegetation; and a Malay civet very quickly on the side of the road. As it got darker and the night set in we started to see more animals including several sleeping crested garden lizards and then a very nice Island palm civet also on the road, this stayed on the road a little longer before slinking off and away.

There were also a few of the common Thomas's flying squirrels around including one that was posed for us just next to the road and relatively low down. It was great to see a species we had seen so many times already but up close and get a proper look at it. Other sightings as we drove down to the entrance gate (which was closed) including more crested garden lizards, a red giant flying squirrel and a couple of Borneo striped palm civets, one was feeding on some red and ripe figs, the lucky civet had a large fruiting tree all to itself.

We stopped at a small roadside pool which was full of frogs, on every leaf and all over the ground there were dozens of frogs, we could make out harlequin flying frog, file-eared treefrog and dark-eared treefrogs but there were almost certainly other species there too. It was a loud mixed species breeding frenzy, they were predicting the rain that was just around the corner. The rain was not as strong as the other night and was quite intermittent at first. It didn't stop us having a couple of nice Philippine slow loris sightings, the first as it was curled up around a branch and looking intently at us, the second moving (surprisingly quickly) through the branches and into thicker cover. This second one was spotted as we scoured a densely vegetated gully just off the road, Mike had seen large eye shine and a tree shake, very likely to be a sun bear which had climbed rapidly down the tree once it knew it had been seen, but we couldn't find it again.



We also found another Borneo striped palm civet feeding, a couple of young sambar on the side of the road, they come to the side of the road after rains to eat the grass that the rain has washed the dust off. We then saw a Sunda leopard cat in thick grass next to the road. At first it was sat on the grass and it then crouched down and slowly walked off and away into the grass. Anita had a second leopard cat sighting later on, there was a problem with the car and we were on the road for a while, a few of us walked a short way down the road to see what we could see and Anita spotted a beautiful leopard cat close by. It went into the vegetation but she was patient, turned off her light and squeaked and the curious cat came back out and she had some very nice views. This was the last sighting of note and we arrived back around 4am, it was a very late one today and we would rest through the day again and head out after dinner again tomorrow.



Day 5 **Deramakot FR**

Wildlife Watching

Today followed the same pattern as yesterday, with us resting in the day and then heading out for a long (10 hours – we were not letting lack of effort be a reason for not finding targeted species) night drive.

Just before leaving there were some southern pig-tailed macaques around the base camp and then shortly after setting off we came to a small troop of long-tailed macaques settling down for the night in their chosen roosting tree. We then saw our third primate of the day with a brief Philippine slow loris moving in thick vegetation. Then the heavens opened and it started to rain, it was heavy rain again, when we drove passed the family of elephants and they were all huddled up underneath a tree for shelter we knew it was too wet to carry on and we stopped at a small shelter for 40 minutes or so until it died down.

After it died down we continued on and started to see more animals, immediately after heavy rain is a good time to go out as many animals are active when the rain stops. We found Thomas's flying squirrels, a couple of red giant flying squirrels and some Borneo striped palm civets in the trees feeding. We also had a baby sambar deer crossing the road, very nervously, looking around and in one direction particularly. We scanned the area but couldn't see anything other than a buffy fish owl perched in the open next to the road. We then had a great sighting of a beautiful banded civet on the side of the road feeding on a crested garden lizard. We watched as it ate down the legs and tail and then moved back into the thicker vegetation, but after a couple of minutes came back out and looked for any scraps it had left before finally moving away and back into the forest.

A bearded pig quickly shot across the road before we had nice views of a hunting Sunda leopard cat, they sit in small open areas of grass and wait for frogs to hop passed, unfortunately they don't stay around too long after they have been noticed by us. But we had some nice views of this individual before it left and went back into the thicker grass.

We had a short break at the river at around 10pm and then continued on, the rain was light and sporadic and it didn't deter the wildlife as we had more Thomas's flying squirrels, Borneo striped and island palm civets and excellent slow loris. We watched the slow loris moving slowly and methodically up and down several branches, checking out leaves and smaller branches for insects, sleeping lizards and other food. We watched for several minutes as it went about its foraging indifferent to us watching below. We then had very nice island palm civet in a tree climbing around. There was also nice view of a forest short-nosed fruit bat in and around some roadside vegetation.

Next we saw a couple of Borneo striped palm civets as well as a brief Malay civet leaving the road and then a second one just on the road around 50m away from the first one. We watched as it ran out onto the road and caught and ate a frog in front of us. Then a third Malay civet ran across the road, it was amazing to see the high civet activity after the rain as they were all out hunting for frogs on the roads.

There was light rain falling when we arrived back at the base camp and had a couple of nice buffy fish owls very close. Then nearby we had a pair of slow loris in the same tree, we watched them climbing on opposite side of the tree and moving towards each other then meet each other. They went nose to nose and spent a few seconds together and then moved passed each other and went carrying on their foraging through the trees.

A female sambar and young fawn bolted across the road and away into the forest before we headed back out on the road away from the river towards the entrance.

We drove towards the White House and along this side road we had a very large male bearded pig and then another Malay civet on the road. The night was very bright after the clouds had cleared, the moon was nearly full and the night was incredible. Our last sighting of note was a great sighting of a large frogmouth perched over the road and giving us incredible views.



As we headed back to the accommodation, close to the road but darting off to the side Anita and the driver saw something large (dog sized) with a long tail. It was closer than the spotlight was reaching and the views were not good enough, but maybe just maybe this was the clouded leopard we were hoping so much for.

Day 6 Deramakot FR

Wildlife Watching

Today was our last day and more importantly night in Deramakot, we had been severally hindered by the rain. Despite being the dry season we had suffered a lot of rain and the worse rain storm Mike had ever experienced and so we hoped for a massive change in fortunes tonight. So we departed at 5:30pm and headed towards the river, unbelievably it started to rain as soon as we left. It was almost as if someone up there was turning the taps on as soon as we went outside. However it wasn't as bad other times and we carried on regardless.

The first animals we came to were the elephants, there were several on the side of the road including a young male (a teenager) feeding on grass, swinging it back against his legs to brush off mud before eating it. They had grown used to us by now and didn't trumpet at us and remained around as we stopped to have some views. This small family had a couple of youngsters who were very curious and looked intently at us before we drove off and left them in peace.

There were of course many Thomas's flying squirrels around as usual and a distant Borneo striped palm civet moving through a fruiting fig tree. A buffy fish owl flew over the road as we stopped to collect the first camera trap. Just one Borneo striped palm civet walking passed, we collected 3 of the 4 we set up tonight and the other would be collected tomorrow morning on the way out.

Carrying on along the road we spotted a Malay civet on the side of the road in the grass, foraging around and then very nearby we had a great Sunda leopard cat on the side of the road. It was foraging along the drainages that run along the side of the roads, these are great places for frogs when it is wet. When she saw us she moved up the bank and into the forest, stopping and looking at us (as if posing) just before disappearing. We then found a slow loris sitting upright and half curled in a ball on the branch of a large tree, it looked just like a marbled cat, Mike had never seen one in this position and only when Martin looked through binoculars we confirmed it was just another slow loris. We were really having limited luck with the cats.

We made a brief stop at the river and then carried on, a couple of red giant flying squirrels were the first species we saw before a Sunda leopard cat (very possibly the same one we saw on the way down, as it was very close to where the female was seen) was spotting sat up in a tree. In a tangle of branches and leaves the cat sat and stared out at us, whether the cat had gone up there hunting a lizard or treefrog or just for a better view over the road we will never know, but it was interesting to see one in the tree and it stayed in view for a while, we all got great views before it went deeper in the vegetation and we moved on.

We then had another Javan pipistrelle flying very low over the road (10cm or so) again and was not disturbed by our lights at all, we watched as it flew into the forest and out of sight before we found a black flying squirrel quickly moving around a large tree before leaping off the branch and gliding away to another tree in the distance.

The next sighting was a very nice one and made up (some way) for not seeing a second cat species so far, it was a red morph colugo. The red morph is a rare variation of this very unusual species and we had excellent close views as it was hanging and scratching itself in a tree next to the road and only around 10m away. We then made it near to camp and the only other sightings we had was another roosting crested fireback, the elephants once again (and we did get one last trumpet as we drove away) and a pair of slow lorises close to the accommodation.

Checking the other camera traps and the ones on the trail deep in the forest we had long-tailed macaques and a Borneo striped palm civet before the elephants arrived and played a game of football with our lure and speaker system. Luckily it all still worked after and we would try this again in Tawau in a few days.

Day 7 Kinabatangan River (Sukau)

Travelling & Wildlife Watching

This morning we packed up and had breakfast at around 8am and departed from the forest at 9am. On the way to the main road we didn't see much except for one of the rarest of all Bornean mammals, the diurnal but very elusive collared mongoose. It was only a brief sighting as it ran off the road and into the vegetation and then through the vegetation and eventually climbing up the bank and away from us. So whilst we had dipped on some of the cats so far we had seen some very rare things, the Asian giant tortoise, a close flock of Borneo bristleheads, Sunda stink badger and now the collared mongoose; so our luck was averaging out, but just not in the shape of felines.

At the main road we left the 4x4 vehicles, said goodbye to Mike who would go ahead to Tawau and get things in place for our expedition there in a couple of days and loaded up the luggage vehicle and drove with Eric the rest of the way. It was uneventful and we made it to the lodge in good time. We then met Rossman our new guide for the next couple of days and after lunch headed out onto the river. But we had not left the rain in Deramakot, already we knew we would be up against it as the river level was very high (the wet season had appeared to started 3-4 weeks early and was in fully swing). As soon as we left the lodge on the boat it started to rain. We only went for an hour (opting to save the remaining two hours and use them for a night cruise – should the rain hold off). In the hour we were on the river we did have some nice sightings such as purple heron, great egrets on the river banks as well as a brahminy kite and white-bellied sea eagle flying over the river and overhead. We also had a couple of imperial green pigeons in a small tree with a more dominant oriental pied hornbill which eventually shoed them away.



We then had very close views of three oriental pied hornbills in a large fig tree, they were low down to the water (3-4m off the water) and hopping around tree, nearby there was a troop of long-tailed macaques and over the other side of the river a lone male southern pig-tailed macaque had a whole fig tree to himself. Martin spotted a small group of proboscis monkeys a little further along, however the rain was getting worse and with lightning all around we decided to call it and go out after dinner instead.

At dinner we had a few Asiatic greater yellow house bats flying through the dining room before we left for our night cruise. The first animal we saw was a nice buffy fish owl perched on the banks of the river and looking very bedraggled after the heavy rain this afternoon. Further along as we headed upriver we found a large fig tree full of ripe fruits and many bats around. There were a few large flying foxes hanging and climbing along the branches and eating on the fruits as well as Geoffrey's rousettes and forest short-nosed fruit bats also feeding around the tree. We watched for a good while as the smaller species of bats flittered in and around the branches and the flying foxes climbed along and then hung upside down as they fed. We carried on along the main river a while longer and found a sleeping blue-eared kingfisher before we headed down a narrow tributary. The water level was so high that there was very little shore and the forest edge was pretty much in the river. We did have a cat on the banks of the where the tributary meets the main river, at first it looked flat-headed like, but then we had a good close look and it was a Sunda leopard cat peering at us from the river bank and then walked off back into the forest.

It was very quiet and other than a sleeping stork-billed kingfisher, sleeping long-tailed macaques and proboscis monkeys (nearly always sleeping with their back to the river as to be facing the possible threat of a hunting clouded leopard) the only other sighting was of many grey large-footed bats feeding on small animals from the surface of the water (identified by their spectrogram).

Our way further down this tributary was blocked by a recently fallen tree that we could move, get over or around, so we turned around and headed back to the main river where we found a couple more buffy-fish owls and a couple of young saltwater crocodiles (the largest being around 50cm long). We came back at around 11:20pm and headed to bed.



Day 8 **Kinabatangan River (Sukau)**

Travelling & Wildlife Watching

This morning we were back on the river at 6am and had a nice sunrise casting pastel colours across the cloudy (but not rainy) sky. We went upriver a little way today, our first stop was to some limestone rocks that had shelters carved out by the water and wind into them. Inside were many mossy swiftlets making their nests and clinging to near impossible ledges. As we were around here there were a couple of white-bellied sea eagles flying overhead and a pair of black hornbills crossing the river.

We cruised the river and checked out both banks and had nice views of some birds this morning, birds such as slender-billed crows, long-tailed parakeets, oriental dollarbirds, imperial green pigeons, Pacific swallows and others were all out and about on the wing or perched this morning.

We then found a large troop of long-tailed macaques in the trees along the bank, there must have been over 40 as they moved around the trees, jumping around. Some where on the river bank and we had great views of several youngsters playing and fighting on the branches of a fallen tree against the bank and watched as a couple of adults foraged for fruits right on the waterline. Nearby there was a smaller troop of proboscis monkeys in the trees, however they didn't offer great views and were in the middle of the tree feeding on leaves. As we approached there was another boat in front and a young male was giving an aggressive warning to the boat, holding himself rigid on all four limbs on the branch, head down and staring intently as the other boat approached. We left and found a flock of oriental anhingas in a tree, some of them having not started there day yet and a couple flying in and drying their outstretched wings in the early morning sun. In a tree just next to the anhinga was a young water monitor sleeping on the branch of a tree.

Further along we found the third primate species of the morning, a large adult male southern pig-tailed macaque and again he adopted a threatening posture as another boat approached closely in front of us. He was in a very open tree and may have felt a little exposed as two boats approached him, he jumped from branch to branch trying to make as much noise and show as much power as possible and broke off a branch he landed on and nearly lost his balance, before retiring to the denser forest.

Carrying on around the main river we found a couple of purple herons, more long-tailed parakeets, great egrets and another white-bellied sea eagle overhead. We also had several views of oriental pied hornbills and two breeding pairs of black hornbills cross over the river. We then spotted a small flock of our 6th species of hornbill on the tree, as wrinkled hornbills flew from their perches and away into the distance. We were now only missing the two rarer hornbill species in Borneo (white-crowned and helmeted) but we had plenty of time to get them with some luck.



There were also a couple more beautifully patterned water monitors still in the trees from the night before, they are wonderfully patterned with yellow and green markings when they are young and still vulnerable to predation from clouded leopards, crocodiles and raptors. As they get larger and from around 1.5m long onwards they lose this patterning and become a solid dark green colour. We hadn't seen any of this size, but there appeared to be a sizable population of water monitors around here.

A second troop of long-tailed macaques were feeding and foraging around a dense foliage tree and we also found a plantain squirrel in the same tree looking for food.

As we started to return back to the lodge for breakfast we had very nice close views of a pair of resting Pacific swallows on a dead tree half submerged in the water near our boat. Nearer the lodge we went down a narrow tributary and saw a pair of black hornbills as well as a patiently waiting blue-eared kingfisher perched near the bank and hoping for small fish to swim past.

Back at the camp and in between breakfast and lunch Julija and Peter found some nesting prevoist squirrels around a nearby building and then at lunch a plantain squirrel came scurrying along the rafters of the dining room and from one side to the other. After lunch we joined our temporary guide Zule for an afternoon boat safari. Along the river we found three different female orangutans with their babies. The first mother and young pair we came across was very active and close, we watched as they climbed up and down a tree, swinging across on the branches to reach the next one and then climb across. The mother always watching her youngster and giving a helping hand when needed. It was certainly an afternoon for primates as we also had great views of proboscis monkeys feeding and socialising and long-tailed macaques very close to the river and grooming each other as well as foraging along on their seemingly never ending quest for food.

There were also some nice birds around again including black and oriental pied hornbills and a pair of Storm's storks, one of which was perched before they both fly over the river. This critically endangered birds is best seen here.

In the afternoon after getting back and before dinner Anita found a red leaf monkey in the forest just a short walk away from the lodge and then at dinner we had the Asiatic greater yellow house bats around the dining room again and an Island palm civet in a tree just outside the reception. When we left for our next night safari the sky was clear and it looked all good for a dry cruise (we were very wrong), and it started with a large crocodile being spotted swimming in the middle of the river just in front of the lodge. With so many fig trees coming into fruit at the moment we were hopefully of something feeding on them and we were not disappointed with a Bornean striped palm civet feeding in one and then a while downriver a binturong in another large fig tree. When we stopped and it was obvious to the binturong we had seen it, it tucked its head under its tail, curled up into a ball and did its best to look like a black ball of fur on the branch.

Before the rain came down and drove us back to the lodge after around 1 hour 45 minutes we had also seen another couple of crocodiles (smaller ones – around 1-1.5m long), sleeping proboscis monkeys (with their backs to the river again) and a very active Philippine slow loris moving around a large tree looking for food eagerly. So we arrived back wet once again but having seen a great species in the binturong. Tomorrow we would start our journey and head to the hills of Tawau and hopefully a meeting with the world's most elusive cat.

Day 9 **Gomantong & Tawau Hills NP**

Wildlife Watching & Travelling

This morning we had one more boat cruise just at dawn. We headed straight to where we found the binturong last night in the hope that it was still around and visible, it was a long shot as they are nocturnal but you never know and it had rained a lot last night so it may be exposed and drying in the morning sunshine.

Along the way we found a mother and baby orangutan in a tree on the river bank and in the same tree a large troop of Sundiac silvered langurs, there were many adults in their grizzled silver coats but also a few youngsters in their bright orange pelage.

We arrived at the fig tree where we found the binturong but the tree had been commandeered by a massive male orangutan. We watched him feeding and moving around the lower branches and he would not tolerate another fruit eating animal in his tree, so we left and explored a narrow tributary instead.

There were many proboscis monkeys along this tributary, they were split into at least 3 distinct groups of around 10 each. We had great views of adult males, females with young clinging to their bellies and lots of youngsters of various ages. They were moving through the trees, feeding on leaves in the morning sunlight and we got great pictures of them jumping from one tree to another one after each other. It was interesting to watch the largest male was always last and the mothers carrying their babies were very cautious and weighed up all of the options and risks before jumping. In and around the same trees we saw several plantain squirrels and the dark colour morph of the prevoist squirrel.

At the top of a dead tree a crested serpent eagle sunbathed and dried its wet feathers before it would take to the sky and begin its hunting for the day. As we left the forest and entered the palm oil plantation which now exists all along the Kinabatangan River (the forest is an ever decreasing strip running parallel to the river); we found three species of kingfisher all in close proximity to each other, first a blue-eared kingfisher and then a stork-billed kingfisher and finally a collared kingfisher.

We then turned around and headed back to the lodge for breakfast and as we were speeding back along the main river Rossman our guide shouted 'binturong'. We stopped and turned to shore and low and behold at the top of a



tree basking in the sun was the unmistakable black ball of fur of a binturong. It was around 4-5 trees along from the fig tree and it was curled up with its head poking out and staring at us. We watched for around 15 minutes as it lay there all curled up, looking at us and then tucking its head underneath. What a great spot from Rossman and a highlight from our time on the river.

We then made it back to the lodge, had breakfast, said goodbye to Lesley who would be leaving the group today and heading to Sepilok for a few days and then left ourselves to head to Tawau. Along the way we stopped at the famous Gomatong cave. We walked around the cave and of course saw hundreds of thousands of the residents. There are 4 species of swift in the cave and there have been 27 species of bat recorded from here, however we saw and could identify just 3 species of swiftlet (black, mossy and edible-nest swiftlets) and 5 species of bats. There is the very abundant Asian wrinkle-lipped free-tail bat, which makes up the vast majority of the 2 million strong Mixed colony (even having some great close views of a couple that were very low down and may be sickly) and then another very abundant bat here, the large-eared horseshoe bat which were roosting much lower down than many of the Asiatic wrinkle-lipped free-tailed bats and were easily visible and photographable. Other bat species we could identify with the bat detector and also from very low bats (just next to the boardwalk) as we walked by were fawn leaf-nosed bats and one large-eared horseshoe bat was close to us, the rest remained high up in their communal roosts and one lone Creagh's horseshoe bat.

Also in the cave were the many cockroaches (some of which we could see emerging from their old exoskeletons, they emerge very soft and white and then harden and take on the dark reddish brown colouration; crabs walked along the small streams which trickled out of the cave and alien like long-legged centipedes kept to the dark recesses of the cave and scurried around whenever a torch light fell on them. We didn't find the bat hawk that feeds on the bats and swifts as they enter and exit the cave but we did have close views of another predator in the cave ecosystem; the ghostly pale cave racer snake. One was curled up around 3m away from the boardwalk and gave us very nice views. Just outside the cave a pair of bushy-crested hornbills were in a large tree and we found a couple of many-lined sun skinks on the walk out to the carpark.

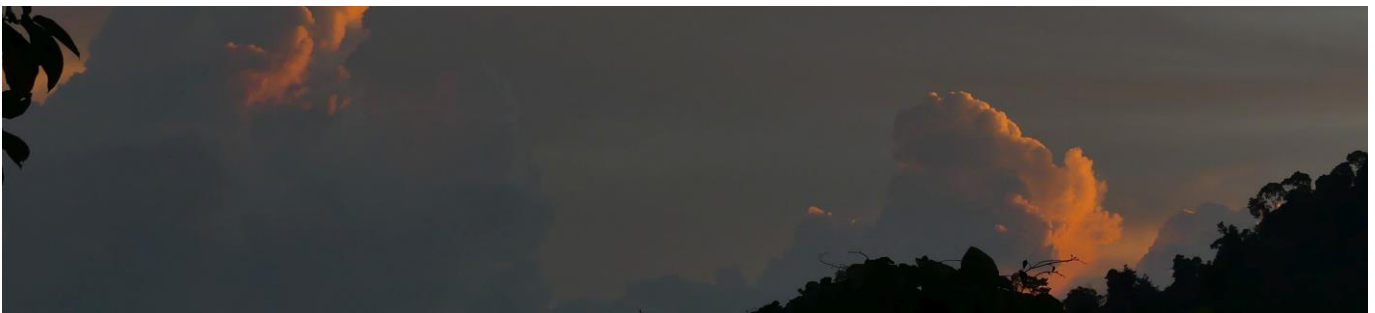
We then loaded up into the vehicle and began the long drive to Tawau to meet Mike. On arrival we met up with Mike again as well as meeting Shavez (the local expert guide for Tawau) and we said goodbye to Eric. We walked to our rooms and settled in. Repacking our bags to be ready to depart up into the hills tomorrow. After this we went to the nearby town of Tawau for dinner before Shavez took us on a night walk around the grounds of the main complex.

We found many harlequin treefrogs on the leaves around a small pond and also a tiny orange common mock-viper curled around the stem of a small plant on the bank of the pond. In a tree over the path there were the unmistakable legs of a large purplish-blue tarantula sticking out. This is an undescribed species from here and may well be endemic to the Tawau hills. Shavez also found a recently emerged cicada, it was still bluish-grey after emerging from one of its instars and its wings hadn't hardened yet so it couldn't fly away. Among the many harlequin treefrogs we had a tiny juvenile white-lipped frog hopping around and then a nicely patterned marbled bent-toed gecko on the buttress root of a tree.

Under a UV light that Ingrid had with her we found many small scorpions in and underneath the bark of another tree before crossing over a river and seeing the most enormous frogs, one in the water and one on the bank. They were giant river toads and they were the size of large rabbits. What an incredible amphibian and surely one of the heaviest species in the world. There were other giants around as the path and tree trunks were full of harmless but imposing looking giant forest ants as they went about their foraging. They are among the largest species of ant in the world and can measure around 3.5cm long. Along with many bats that were flying around and identified with their spectrographs we found a couple of other mammals here including great views of a colugo. This one was around 10m up the trunk of a tree, in the usual colour morph of brown-grey with mottled appearance and hung around looking at us and in general very oblivious to us being there. There was also a brief Malay civet on the pathway before it noticed us and thought twice and ran into the forest.

The other sightings we non-mammalian and included katydids feeding on a species of begonia endemic to the Tawau hills, long-legged centipedes in and among the vegetation, an enormous harvestman, a large and not so stick-like stick-insect, another very pale tarantula doing its best to hide in some leaves from us and a couple of other species of frog. First a southern torrent frog and then a stunningly beautiful striped stream frog.

We then returned to the accommodation for a good night's sleep before the ascent tomorrow.





Day 10 Tawau Hills National Park

Trekking & Wildlife Watching

This morning we woke, organised our luggage (what the porters were taking, what we were taking personally and what would be staying in the lowlands until our return), we had breakfast and departed with our rangers Richard Rosland and Oly. The walk was a long and quite hard (in places) hike but it was through some stunning forest. The trail started nice and gentle in the lowlands, following the river through the forest and passed signs for the largest tropical tree in the world. One that was recently measured and stands at an incredible height of 99.8m tall. After around 2km of flat terrain we started the climb. Most of the walk was uphill, but we took our time had numerous breaks and enjoyed the wonderful forest surroundings.

We didn't see too many animals on the way, there were quite a lot of us (including porters and rangers), we did see a few nice birds such as emerald doves, fluffy-backed tit-babblers and mammals such as sambar, Borneo Muller's gibbon (brief view, despite hearing them most of the day) and a cream-coloured giant squirrel. There was also a very recent hole in a tree trunk from a sun bear. So they are also around here.

The group split into different sub-groups depending on how fast people walked but we were all within a km or so of each other and we all made it to our accommodation 10.5km into the forest and at 900m elevation by 3:15pm. We spent the rest of the afternoon resting, unpacking and watching the wildlife from around the accommodation. There were many species of birds around including Asian paradise flycatchers, olivaceous bulbuls, Borneo spiderhunters, yellow-rumped flowerpeckers, orange-bellied flowerpeckers, Temminck's sunbirds and cinerous bulbuls all fluttering and flying around. As for mammals we did have views of a lesser treeshrew quickly moving around a nearby tree and a pair of plantain squirrels looking for food nearby also.

After dinner Shavez took us for walk up the hill around 1km more to set up a camera trap around a great argus pheasant dancing ground. This large peafowl like bird clears an area around 4x6m to perform his dance in to attract females. These dancing grounds have been found to have some of the highest diversity of mammal use in the whole of the Borneo forests and Shavez is at the front of this study. So we would see what animals visited here with the camera traps. Also tomorrow Shavez would stake out an area nearby here with Miles, Ingrid and Julija on our first stake out day.

Along the way we found some more long-legged centipedes, a very large and intricately patterned marbled bent-toed gecko, a newly described species of stunning stick insect. This bright green insect had an electric blue stripe down its length with purple and red also visible. It was only discovered and described very recently and we were the first tourist group to ever see this species in the wild.

Whilst we were out here Mike walked down to his chosen stake out site (where Anita and Peter would join him tomorrow) and set up his camera trap along the way we spooked a southern red muntjac into the forest.

Once we all returned to headed to bed ready for our pre-dawn start tomorrow.

Day 11 Tawau Hills National Park

Wildlife Watching

This morning we breakfasted at 5am and then at 5:30am split into our groups (Mike with Anita and Peter around 0.5km away in a small stream with many game trails leading from it; Shavez with Julija, Miles and Ingrid around 1km uphill; Chris would hike the trails around the accommodation around 0.5km each way as not to disturb our areas and Martin (who was sick this morning) rested and then at lunch went down around 2km to his chosen stake out destination to wait the afternoon out there.

The dawn was broken with the sound of at least 3 different gibbons groups all calling loudly to each other, displaying their territories and passing on information that we do not fully understand. Across the different groups we saw various species of birds busy this morning, there were many hornbills (rhinoceros and wreathed mostly) very active this morning flying from their roosting tree to their feeding trees. There was also views of a great flying lizard scurrying up a tree and Martin spotted a Sabah slender skink. There was the briefest view of a gibbon flying through the canopy and a southern red muntjac running away, but that was all for mammals until the rain came in and we all came back to the accommodation.

At the accommodation we had more birds around including chestnut-winged scimitar babblers and a black eagle soaring in the distance and whiskered treeswifts sallying around looking for food from their perches. We had a brief lesser treeshrew in the same tree as yesterday (most likely the same individual) and then we had two new squirrel species for the trip, first a new record for Tawau Hills National Park as we watched a Brook's squirrel feeding and climbing around a nearby tree. We watched it climbing and then tearing away small pieces of bark to see what was underneath. Then we had a pair of ear-spot squirrels in the same tree shortly afterwards.

In a fruiting tree nearby the accommodation (around 500m away) there was a nice troop of red-leaf monkeys foraging and moving around the trees, including a mother and baby.

Then after dinner we had a night walk with Shavez, we walked to a nearby stream but it was quite quiet. We found an undescribed species of purple freshwater crab. We found several and all were living in the tiniest tree holes filled with water. Down at the stream we found a lesser river toad, it was a good size animal despite being the smaller of the two river toads here.

There were many water beetles and tadpoles around in the water as well and then around the banks of the stream a few large snails with brown flattened shells and another long-legged centipede. We then found a larger common



mock viper on some leaves and posing very nicely for pictures. We then found a huge hollowed out large tree which was full of spiders, including some enormous orange and black banded ones which must have been 20cm across. On our way out we had another species of huntsman spider (much smaller and more typical of the huntsmen spiders) feeding on a katydid on the underside of a leaf.

When we arrived at the accommodation there was a Malay civet around the accommodation and Mike spotted a banded civet on the main trail leading up to the accommodation.



Day 12 Tawau Hills National Park

Wildlife Watching

This morning we awoke before dawn again and after breakfast we headed out, two groups up the hill (Shavez with Anita and Peter to the argus pheasant dancing ground; Martin with Julija, Miles and Ingrid to the fruiting tree and Mike and Chris to hike the trail downhill for a few kilometres). As always the dawn was greeted with the various groups of gibbons loudly calling as we walked around.

At the argus dancing ground they had a very close southern red muntjac which approached to within a few metres away and also very nice emerald dove, a little later on in the morning Peter saw very nice gibbons in the trees above.

At the fruiting tree we had a lot of activity, at least two different groups of gibbons were moving around and we had brief views of them jumping from tree to tree as they moved around and went to and from the fruiting tree. We also had a couple of groups of red-leaf monkeys around, including one male who came and checked Martin out around 40m away, staring intently. There were also two species of squirrel, a prevost and an ear-spot climbing around the trees on their normal routes. Julija spotted a bearded pig walking down towards the tree and to with just 2m of Miles but it got spooked and ran off. Martin also spotted a female blue-headed pitta on the ground nearby the tree.

Mike and Chris had some luck too. They had fantastic views of a couple of yellow-throated martens in the trees, running through the trees independently and then coming together. What a fantastic animal and a great sighting. As well as prevost squirrel and a cream-coloured giant squirrel, bearded pig, running away Bornean yellow muntjac. They also had a Mayalan racer on a tree on the way back up to the accommodation.

We then all got together, exchanged sightings and had an early lunch. We spent the middle of the day either hiking around, birding from the accommodation or resting, then at around 4pm we had an early dinner and headed with Shavez down to a stream where he had once before recorded the very elusive and poorly understood Hose's civet.

On the way down to the stream we found a small troop of red leaf monkeys in the trees a little way in the distance. We could see them as they moved between the dense foliage and caught glimpses of a young baby. Much brighter and paler (almost yellowish) in colour compared to the deep red adults.

We continued down and down the slippery slope until we came to the fast flowing shallow stream. We arrived just as the sun was casting beautiful shades of yellow and orange into the forest, so we waited until dark and then went looking for wildlife. The main focus would be Hose's civet but as a tree had recently fallen over the stream it blocked our progress so we were confined to a very small area. We didn't see the civet (but did leave a camera trap here to see what we could get in the dead of night), but the stream was very productive for other life. There were many frogs around and we had fantastic views of many white-spotted rock frogs and black-spotted rock frogs. These species are localised around fast flowing hill streams and as these are noisy places they do not (or rarely) call for communication (like many species of frogs), instead they slowly and rhythmically raise their legs to communicate with other members of their species.

We also found a lesser river toad posing nicely on a rock in the stream as well as mountain spadefoot toad before we found a tiny (no more than 12cm long) white-nosed water snake. It was curled up on a fern and was very comfortable with us approaching and getting some fantastic views and photographs of this stunning snake. The blue and brown markings along its body really coming through and the white belly and nose making a striking contrast.

Further along we also came across more black and white spotted rock frogs and a couple of *Ansonia leptopus*, before heading back up the slope and to the accommodation. Along the way we saw a few nice animals including stick insects, an undescribed species of katydid which was jet black except for a bright red head and also a tiny brown and orange puddle frog in the muddy wallow of a pig. But the highlight of this night walk was incredible and close views of a Kayan slow loris just off the trail. Not known from this park (or Sabah) we are very confident of the identification, the facial markings are not 100% for either Philippine, Bornean or Kayan, but more like Kayan and the very pale, thick (almost fluffy – an adaptation to montane habitats) fur coupled with a very distinct dark brown dorsal stripe all match the Kayan most.



In fact this was not the only mammal we were adding to the list of species recorded from this park, along with the ear-spot and Brook's squirrel we recorded a couple of days ago Mike and Chris had spotlighted and photographed a whiskered flying squirrel a short distance down the hill also. One thing is for sure, the life on these hills is phenomenal and it will be a long time before the species lists are complete.

Day 13 Tawau Hills National Park

Wildlife Watching

This morning we all split into different groups depending on what people's main focus was today, Miles and Ingrid walked the trail downhill with Chris (as he had had some great luck with some cool animals in the last couple of mornings); Peter went up to the hide overlooking the argus dancing ground, Julija and Shavez went down to stake out the fruiting tree up hill again, Anita walked around the accommodation area birding whilst Martin and Mike walked, found places to wait to see what they saw.

At around 10-11am we all came back to the accommodation and collated our mornings' findings. Martin had a great slaty woodpecker sighting as well as an orange-backed woodpecker and an emerald dove, but the only mammal he had sign of were the ever calling gibbons.

Julija and Shavez had a very good bearded pig sighting close to the fruiting tree, a large male coming to feed and staying a short while before running off. They also had brief views of a cream-coloured giant squirrel as it moved quickly through the trees. The gibbons were also around the fruiting tree again, swinging around and noisily moving in the trees directly overhead, but remaining elusive to actually see clearly. Miles, Ingrid and Chris had brief views of southern red muntjac, bearded pig and red-leaf monkeys moving through the forest and Peter had very nice gibbon views once again around the argus ground.

As everyone was gathered for the middle of the day we had a couple of brief fly-bys from a stunning Rajah Brook's birdwing butterfly as it swooped and flew passed the accommodation a couple of times. We then started to collect the camera traps and we were in for some surprises. Two of the traps resulted in nothing but an unidentifiable rat (most likely a Muller's rat due to the stream it was found foraging along and its large relative size); but the camera trap we had position on the main trail around 2.5km away from the accommodation had Mike walking past and off the trail to collect the hide netting to be replaced at the argus dancing ground at 19:32 and then at 19:35 walking the other way and along the trail a large male Sunda clouded leopard. Amazing, but so unlucky we didn't see him, we had been hiking these trails at that time every night. The other camera trap that was at the argus ground for the whole time we had been up here had a stunning marbled cat walking away from the camera and then 20 minutes later coming back and checking it out. This was at 8:20 – 08:45am, so again during the time we were out staking out locations and active along the trails. Annoyingly on this one day we had positioned people around 100m away from the argus ground and the marbled cat. Every other day we had at least one person at the argus ground in the morning. We had been desperately unlucky with the cats on this trip. The rain, high river levels and just bad timing. We had done everything right, spent countless hours in the field and in the right places but just not at the right times for the individual animals passing through. But still we had recorded over 60 species of mammals and had recorded 3 species new to the Tawau Hills National Park and we still had more time for more.

In the mid afternoon we went down to an enormous *Shorea* tree which measured 7m from buttress to buttress for a group shot. Back at the accommodation and before our evening / night walk Miles spotted a beautiful tiny squirrel climbing down a tree in front of the hostel. It was a Whitehead's pygmy squirrel, feeding on the lichen as it moved slowly down the tree trunk head first. We watched the tiny squirrel for several minutes before it went behind vegetation and out of sight. What a great sighting and another new one for the Tawau mammal list Shavez was preparing.

For the final night walk we split into two groups, Shavez, Peter, Miles and Ingrid went up hill whilst Mike, Martin, Julija and Anita went downhill. Both groups had quiet nights. The highlights being a very brief unidentified rat in the forest and a cinnamon treefrog.

We all came back and got some rest ahead of the descent tomorrow morning.



Day 14 Tawau Hills National Park

Trekking & Wildlife Watching

This morning we all set off at slightly different times and headed down the hill, sightings along the long walk down included two different groups of red leaf monkeys, various bearded pigs feeding on a large fruiting tree near the trail



(including a male and female and many piglets), a few different groups of gibbons. Some just heard, some seen in the distance with tree movement the major giveaway and one family seen very well in the open and of course many hornbills flying overhead and other nice birds including green broadbill, rufous-tailed shama and emerald doves. There were also two species of bats seen, one in a toilet at kilometre 8 along the trail, this was Dayak roundleaf bat (this species was often seen hunting around the accommodation and also along the trails at night) and then a pair of greater sheath-tailed bats under the eaves of the botanical garden entrance.

When we all arrived back we had our late lunch / early dinner and repacked our bags ready for departure tomorrow. We met up with Dr. Andrew Hearn (a leading expert in Bornean cat species) and discussed the trip and got some fantastic information from him regarding his projects and date on clouded leopards and bay cats.

At 7:30pm we left for a short night walk with Shavez again, the small area around the main camp ground of the park was once again very productive and included many harlequin flying frogs and white-lipped frogs as well as a male and female green swamp frog. Hunting along the bank of a small pond we found two colour morphs of the common mock viper, an orange one (probably the same individual we had seen on our first night walk here) and a larger greyish colour morph. Both positioned on leaves over the pond and waiting for frogs to get too close. We saw an enormous stick insect which was so well camouflaged it even had white markings which resembled lichen or bird faeces on its thorax.

Over the main river we found a giant river toad feeding on ants at the base of a tree, its size just incredible to see from this close and then we had a nice greater mousedeer in the vegetation and seen well as it walked away from us after it was obvious to it we had spotted it hiding.

We then found another individual of the large undescribed tarantula that we found on the first night walk, this time it was fully out on the bark of the tree and we could see its true size as it ran back into its hole. On our way back around to the accommodation we had further views of several different species of katydid, a large harvestman, a big black scorpion in a dead tree stump, a lesser river toad and a young marbled bent-toed gecko.

Day 15 **Departure**

Travelling

This morning at 9am Miles, Ingrid, Peter and Anita all left for Sandakan with Chris and Julija leaving for Tawau airport at 11am; Mike and Baping leaving for their homes around the same time. Shavez was staying on here and Martin left at 4pm to catch his return flight to Kuala Lumpur.

Species List

Borneo's Rare Mammals – August 2018

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

	Common Name	Binominal Name
1	Black flying squirrel	<i>Aeromys tephromelas</i>
2	Thomas's flying squirrel	<i>Aeromys thomasi</i>
3	Asian short-clawed otter	<i>Aonyx cinereus</i>
4	Binturong	<i>Arctictis binturong</i>
5	Bornean striped palm civet	<i>Arctogalidia stigmaticea</i>
6	Banteng	<i>Bos javanicus</i>
7	Ear-spot Squirrel	<i>Callosciurus adamsi</i>
8	Plantain squirrel	<i>Callosciurus notatus</i>
9	Prevost's squirrel	<i>Callosciurus prevostii</i>
10	Sambar	<i>Cervus unicolor</i>
11	Naked bat	<i>Cheiromeles torquatus</i>
12	Horsfield's fruit bat	<i>Cynopterus horsfieldi</i>
13	Forest short-nosed fruit bat	<i>Cynopterus minutus</i>
14	Moonrat	<i>Echinosorex gymnura</i>
15	Asiatic elephant	<i>Elephus maximus</i>
16	Small Asiatic sheath-tailed bat	<i>Emballonura alecto</i>
17	Plain pygmy squirrel	<i>Exiliscirusu exilis</i>
18	Whitehead's pygmy squirrel	<i>Exiliscirus whiteheadi</i>
19	Sunda colugo	<i>Galeopterus varieagtus</i>
20	Sun bear	<i>Helarctos malayanus</i>
21	Banded civet	<i>Hemigalus derbyanus</i>
22	Collared mongoose	<i>Herpestes semitorquatus</i>
23	Large false serotine	<i>Hesperoptenus tomesi</i>
24	Fawn roundleaf bat	<i>Hipposideros cervinus</i>
25	Diadem leaf-nosed bat	<i>Hipposideros diadema</i>
26	Dayak leaf-nosed bat	<i>Hipposideros dyacorum</i>
27	Muller's Bornean gibbon	<i>Hylobates mulleri</i>
28	Long-tailed macaque	<i>Macaca fascicularis</i>
29	Southern pig-tailed macaque	<i>Macaca nemestrina</i>
30	Yellow-throated marten	<i>Martes flavigula</i>

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72	Grey-streaked flycatcher	<i>Muscicapa griseisticta</i>
73	Purple-throated sunbird	<i>Nectarinia sperata</i>
74	Wallace's hawk eagle	<i>Nisaetus nanus</i>
75	Red-bearded bee-eater	<i>Nyctynornis amictus</i>
76	Black-hooded oriole	<i>Oriolus xanthonus</i>
77	Ashy tailorbird	<i>Orthotomus ruficeps</i>
78	Eurasian tree sparrow	<i>Passer montanus</i>
79	Stork-billed kingfisher	<i>Pelargopsis capensis</i>
80	Scarlet minivet	<i>Pericrocotus speciosus</i>
81	Bornean bristlehead	<i>Pityriasis gymnocephala</i>
82	Yellow-bellied prinia	<i>Prinia flaviventris</i>
83	Yellow-rumped flowerpecker	<i>Prionochilus xanthopygius</i>
84	Long-tailed parakeet	<i>Psittacula longicauda</i>
85	Black-headed bulbul	<i>Pycnonotus atriceps</i>
86	Grey-bellied bulbul	<i>Pycnonotus cyaniventris</i>
87	Spectacled bulbul	<i>Pycnonotus erythrophthalmos</i>
88	Yellow-vented bulbul	<i>Pycnonotus goiavier</i>
89	Orange-backed woodpecker	<i>Reinwardtipicus validus</i>
90	Silver-rumped needletail	<i>Rhaphidura leucophygialis</i>
91	Helmeted hornbill	<i>Rhinoplax vigil</i>
92	Raffle's malkoha	<i>Rhinorhina chlorophaea</i>
93	White-throated fantail	<i>Rhipidura albicollis</i>
94	White-browed fantail	<i>Rhipidura aureola</i>
95	Wreathed hornbill	<i>Rhyticeros undulatus</i>
96	Spotted dove	<i>Spilopelia chinensis</i>
97	Crested serpent eagle	<i>Spilornis cheela</i>
98	Asian paradise flycatcher	<i>Terpsiphone paradisi</i>
99	Collared kingfisher	<i>Todiramphus chloris</i>

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

	Common Name	Binominal Name
1	White-fronted water snake	<i>Amphiesma flavifrons</i>
2	Crested garden lizard	<i>Bronchocela cristatella</i>
3	Malayan racer	<i>Coelognathus flavolineatus</i>
4	Borneo black gecko	<i>Cnemaspis nigridia</i>
5	Saltwater crocodile	<i>Crocodylus porosus</i>

August													September	
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6	Marbled bent-toed gecko	<i>Cyrtodactylus quadrivirgatus</i>
7	Great flying lizard	<i>Draco maximus</i>
8	Cave racer	<i>Elaphe taeniura</i>
9	Many-lined sun skink	<i>Eutropis multifasciata</i>
10	Common four-clawed gecko	<i>Gehyra mutilata</i>
11	Warty house gecko	<i>Gekko monarchus</i>
12	Bornean angleheaded lizard	<i>Gonocephalus borneensis</i>
13	Brook's house gecko	<i>Hemidactylus brookei</i>
14	Tropical house gecko	<i>Hemidactylus frenatus</i>
15	Common dwarf gecko	<i>Hemiphyllodactylus typus</i>
16	Asian forest tortoise	<i>Manouria emys</i>
17	Common mock viper	<i>Psammodynastes pulverulentus</i>
18	White-bellied rat snake	<i>Ptyas fusca</i>
19	Sabah slender skink	<i>Sphenomorphus sabanus</i>
20	Water monitor	<i>Varanus salvator</i>

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

	Common Name	Binominal Name
1	Long-fingered slender toad	<i>Ansonia longidigita</i>
2	Green paddy frog	<i>Hylarana erythraea</i>
3	White-lipped frog	<i>Hylarana raniceps</i>
4	Montane large-eyed litter frog	<i>Leptobrachium montanum</i>
5	Rough guardian frog	<i>Limnonectes finchi</i>
6	Smooth guardian frog	<i>Limnonectes palavanensis</i>
7	Northern torrent frog	<i>Meristogenys orphnocnemis</i>
8	Berdmore's narrow mouthed frog	<i>Microhyla berdmorei</i>
9	Cinnamon tree frog	<i>Nyctixalus pictus</i>
10	Puddle frog	<i>Occidozya laevis</i>
11	Poisonous rock frog	<i>Odorrana hosii</i>
12	Lesser river toad	<i>Phrynoidis asper</i>
13	Giant river toad	<i>Phrynoidis juxtasper</i>
14	Dark-eared tree frog	<i>Polypedates macrotis</i>
15	File-eared tree frog	<i>Polypedates otitophus</i>
16	Spotted stream frog	<i>Rana picturata</i>
17	Harlequin flying frog	<i>Rhacophorus pardalis</i>

August													September	
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18	Black-spotted rock skipper	<i>Staurois guttatus</i>
19	White-spotted rock skipper	<i>Staurois latopalmatus</i>

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

	Common Name	Binominal Name
1		<i>Parachela oxygastroides</i>

August														September	
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