

Borneo, Sept-Oct 2019

In 2019 I assembled a group of mostly mammal-watchers for a safari on Borneo. When I first posted the itinerary on the Mammal Watching blog, I mentioned we'd be "looking for all the rare, bizarre and interesting mammals of Borneo", followed by a list of the trip's targets. Sunda Clouded Leopard was right at the top, followed by marbled cat, sun bear, and a plethora of other cool species.

For me, personally, it was the first proper trip to Borneo. I had visited Borneo back in 2015 with Jon Hall and Jean-Michele Bompar for just 4 days, and only to Deramakot. In that very short time span, we managed to see a lot more than I had expected. But apart from the super-rare stuff, I still wanted to see many of the iconic Bornean mammals such as Maroon Langurs, Bearded Pigs, any porcupines, as well as all the montane specialties. Further, I was hoping 19 days would get me better views of many of the species I had already seen. For most of the other group members, Clouded leopard was the "make or break" target species, so most of our efforts were focused on trying to find it, which I was perfectly happy with.

Prior to this trip, I had purchased a thermal scope, which was really a game-changing decision, in my opinion. I will elaborate on that later in a separate paragraph, and maybe copy and paste this separately on the blog, as I think I have some insight into the logistics of traveling with one, and of the age-old dilemma of which model to purchase.

We were 6 participants and a guide. Our guides were:

- Shavez at Tawau highlands – Tomer, Jason and Jens only
- Chun at Tawau lowland – Jo, Wendy and Phil only
- Mike at Danum Valley, Deramakot and at Kinabatangan river, where he was joined by Sukau Greenview's guide
- Mac at Mt. Kinabalu

The itinerary was as follows:

Date	Day	Stay
28/09/2019	-	Tawau (Jason, Tomer, Jens only)
29/09/2019	1	Tawau
30/09/2019	2	Tawau
01/10/2019	3	Danum Valley (Infapro)
02/10/2019	4	Danum Valley (Infapro)
03/10/2019	5	Kinabatang – Sukau Greenview
04/10/2019	6	Deramakot
05/10/2019	7	Deramakot
06/10/2019	8	Deramakot
07/10/2019	9	Deramakot
08/10/2019	10	Deramakot
09/10/2019	11	Deramakot
10/10/2019	12	Deramakot
11/10/2019	13	Deramakot
12/10/2019	14	Deramakot

13/10/2019	15	Deramakot
14/10/2019	16	Mount Kinabalu – Hill Lodge
15/10/2019	17	Mount Kinabalu – Hill Lodge
16/10/2019	18	Mount Kinabalu – Hill Lodge
17/10/2019	19	Depart

I know a lot has already been covered about all the places we've been... but I still think there is some good info to know before going to such a crazy diverse place as Borneo. So I have put as much info as I thought was necessary without repeating things I know to be common knowledge.

SO – THERMAL SCOPE!

It has become a thing.. not only do we need to carry a pair of binoculars around our neck, a camera, which, for many mammal watchers is very heavy, and a torch for all the dark-hours activities. Now we also have to have a 4th hand/shoulder/neck/large pocket for a thermal scope. But let me assure you – it's worth it!

I procrastinated buying one, by about a year. When I finally narrowed down which model I wanted to purchase, lead times became a little tight with international shipping, customs, etc. Long-story short – I “resorted” to buying the *Pulsar Quantum HD38S*, off the display shelf at the local hunting store. It was literally the only thermal scope they had in stock, that I could buy immediately. Of course it came with an “opened box” discount, and it's already much cheaper than the current versions out there. This model is also obsolete. But it was really sufficient! I tell you – after a few hours (well, after MANY HOURS) of practicing in both in Singapore before our trip to Borneo, and after holding the damn thing to my eye for 7-9 hours a night for several nights, this scope became so efficient, almost nothing escaped me. You just have to put your time in, and you'll be able to tell mammals from birds. This is why I can safely recommend this rather inexpensive, old model. Anything above it is just a bonus. Of course I haven't yet used it in open terrain, where conditions may be different, and I'll have to re-learn how to tell things apart from each other. But the bottom line is, if you ask me, get one! And you really don't have to go for the expensive ones... buy used ones off EBay. And take the time to practice looking through it!

A few more notes on the use of the scope – Every time I turned the scope on, I turned the brightness down to 0 (out of 20 – default is 5), and I turned up the contrast to 7 (from a default of 6). This was very sufficient, because plants didn't shine almost at all, while mammals were clearly white. The lower brightness also doesn't blind me when I look up from the scope at an actual animal in the spotlight. After many hours of use – it became very clear to me that sleeping birds generally look like white-ish circles (except hornbills, owls and very large birds, which you can make out their shape). Mammals – big or small, glow bright – lighter than birds. Mammals are also almost always moving to some extent (even if they're eating or resting. Unless they're sleeping), and their movement looks different from birds' movement. It became easier to distinguish between them after a while. Reptiles give little-to-no heat. Some insect, strangely, were glowing tiny but bright white. Most other insects didn't glow at all. I think that the use of the lowest brightness setting enabled battery power to last long enough – about 10 hours of operation time before they would go out. So I only had 2 sets of rechargeable batteries: 1 set in the scope, and the other set always on me, ready to replace them.

One last note about traveling with a scope – I travelled from Tel Aviv through Munich to Singapore with the scope in my backpack. I had no problems with it what-so-ever. In Munich, I was questioned during the connection about my huge Led Lenser light. But nothing was said about my thermal scope. In Singapore, I just walked in and nothing happened. When I left Singapore the first time (to Tawau), they put my backpack through “further inspection” only because I apparently had a “big book” (Borneo mammal field guide). They opened it, and again, said nothing about the scope. I flew to Singapore once more with my scope on the way back from KK. I used my thermal scope twice in Singapore. One last note – I met Stuart Chapman coincidentally at Deramakot, and he mentioned that even though he did in fact get pulled into customs on his way into Singapore, and even though he had his thermal scope, they didn’t do anything nor confiscated it. Stuart – please correct me if I’m wrong, as I don’t want to mis-lead anybody. But I’m still not clear about the official legality of the use of them in Singapore.

Tawau Hills

Only after fully booking the trip with 6 people including myself, were we told that Tawau Hills was all on foot, and included a “hard climb” if we wanted to reach the top, where all the rare animals are seen. Prior to that, I had imagined it being a little more like Mt. Kinabalu.

Of course I was up for the adventure, but not everybody in the group could/wanted to make the tough climb, so the group split into two halves – 3 people would make the torturous climb to the top, while the other 3 would take it easier and stay in the lowlands. In retrospect, this may have worked better for both sub-groups, as having 6 people moving through the forest together on foot didn’t seem like the ideal mammal-watching strategy in this habitat. To reinforce this point, everyone who has had experience at Tawau (including Mike, Shavez, and Martin Royle) all recommended to split into groups as small as we could, even go out individually. But of course we wanted to keep this as more of a group thing, where everyone sees everything, rather than have a collectively longer list with different people having missed different animals.

Well - How hard can it be to climb Tawau? It’s not Mt. Everest, is it?

We’ve pondered that question a while, because we received several warnings about having to be in shape, and about how tough it is. So the answer is: It’s pretty tough! You start the first 2K in the lowlands, completely flat, on a nicely marked trail. Well, actually everything is nicely marked, but the trail in the lowlands is very comfortable – almost wheel-chair accessible (almost – not quite!). Then you have 2K of very steep up-hill. From there on, it’s all ups and downs – sometimes long, steep sections, sometimes gentle, but rarely flat. And all this – in the increasingly hot, very humid rain forest. You start when it’s still cool out – like 7-7:30ish. But by the time it gets 10:30-11:00 and you’re still climbing, without many animals crossing your path, it just becomes a long, sweaty hike. So take that into account.

The night before the official start of the tour, Jens, Jason and myself met up at Tawau and were taken to a 4-hour spotlighting session of the lowlands. Before even leaving our hostel 15-min outside the park, I thermal scoped a large-ish **flying squirrel**, but we never got a good look at it to be able to ID it. As soon as we reached Tawau headquarters, I thermal scoped sleeping **Long-tailed macaques**, which were the first “official” species of the trip. Throughout the spotlighting session, we saw Dark-tailed tree rat (Juvenile and later an adult), an *Oriental dwarf*



Dark tailed tree rat (Niviventer cremoriventer) – Juvenile on left, adult on right. Photos - courtesy of Jason Woolgar, confirmed by Quentin Phillipps

kingfisher, an undescribed species of *Tarantula*, some stick insects, and a couple of cool frogs. I also thermal-scoped a small treeshrew-like mammal that was darting in-and-out of some tangled vines, but we never got a chance to ID it. My hunch was a pen-tailed treeshrew because of the behavior and habitat, and Shavez said it could have been, but of course we will never know for sure. I also thermal scoped a sleeping **Maroon langur**, which was actually a lifer for me, and a mammal I wanted to see. We would see tons throughout the trip – but the first one is always exciting.

The next morning we had an early breakfast around 7, and wanted to start the climb by 7:30ish. The park usually doesn't open until 8, but this was arranged for us, with only a 10-minute delay or so. Right away, there were treeshrews and squirrels near the small stream, but we only positively identified a **Prevost's squirrel**. Had we had more time, and not a 10K walk ahead of us with only 2 nights at the top, we would have probably identified more species. On the way up we saw Maroon langurs again, and Jens and Jason flushed out a single or a couple large animals which we were pretty sure are Bearded pigs, but we didn't see them well enough to “count” them. There were many trail cameras along the way, as well as a couple of Clouded leopard traps for research and collaring purposes. On the last 2km of the hike we saw our first **North Borneo Gibbons**, whose sound was omnipresent in the park. We reached the very beautifully-situated St. Lucia hostel, where we relaxed before embarking on the afternoon hike. The hikes at Tawau are again mostly up-and-down slopes, and along ridges. The forest isn't super thick, so you can see relatively far into it, especially when you compare it to Neotropical jungles, or even to Deramakot, really. Shavez obviously knows the area very well and has taken us to specific places where different species have been photographed, including Bay Cat, Kayan Slow Loris, Collared mongoose, Hose's civet, and just the “regular” Marbled cat, banded linsang and Clouded leopard. He showed us some areas in the afternoon so that we could re-visit them at night with or without him. But he was cool and enthusiastic enough to join us as much as we liked. Shavez is also a funny character, and he knows most animals pretty well.

On our afternoon hike we didn't see much, but at night I thermal-scoped a **Colugo**, a **Red Muntjac** down-slope from the ridge, and some sleeping birds including a *black-naped monarch*. Shavez took us to a ridge on the main trail from Mt. Lucia to Mt. Magdalene, where there is a

section of the trail where almost all the “cool” animals have been seen – from bay cat, through all the other cats, and hose’s civet, among others. He called it the “biodiversity hotspot”. So we just sat down a little off-the-trail in the bushes, turned off our lights, and I thermal scoped to see if anything would come up. After about 20 minutes or so, Jason heard an animal very close to him, but it was an angle I couldn’t get from where I was sitting – so he shined the light and saw a **Banded palm civet** within a couple meters of himself. We followed it for a minute or so, trying to get in position for a picture as it was walking away, but we never managed to get any decent shots despite keeping pretty close to it for a little while. We went back and to the trail and sat beside it, but after a while longer it was almost midnight and we started heading back down the trail, with a few stops in hopes we would see more cool stuff. But we didn’t see anything of note.

The following morning around 6:00ish, while brushing my teeth, I walked onto the balcony and saw a **Malay Civet** which apparently lives underneath the lodge. I tried to call Jens and Jason to see it, but as neither of them was around and I didn’t have my camera, it just went back into the bushes. We walked back up to Biodiversity hotspot and waited for a while, but didn’t see much except gibbons and *Bushy-crested hornbills*. Then we checked out another ridge that I liked because it had good lookouts over the valleys on either side of it. We didn’t sit around for too long, but Jason and I did get our only confirmed sighting of a **Horse-tailed squirrel** for the trip. After breakfast we explored the trail just ‘below’ the lodge, before the steep drop. I saw a



Horse-tailed squirrel (Sundasciurus hippurus) at Tawau

mammal in the trees, which I first thought was a giant squirrel, but then I thought it was a yellow-throated marten. I walked over to get Jason and Jens who were sitting just further down the trail, but in doing so I lost the animal as it moved through the canopy. Either way, we will have seen both of those species later in the trip.

Throughout the morning, we heard a bunch of, and got a few short glimpses of *helmeted hornbills*, which were rather common in this area – probably more so than any other place on Borneo. In the afternoon we slept during the short storm, and then explored the same trail section, only to find a *scarlet-rumped trogon*. Tonight

after dinner, Shaves told us there is a pair of **Red giant squirrels** often glide in the trees right in front of the restaurant. We didn’t see them before dinner, but incidentally, Shavez asked to check out my thermal scope after dinner before we went on our night walk, and immediately he spotted a pair of them on the trees in front of the restaurant, right around eye level. Side note: I really enjoyed the food here, even compared to other destinations throughout the trip.

Tonight we were going down to the stream where Shavez has seen Hose’s civet before. To get there, The hike there is about 1.3-1.5km, some of which is pretty flat, but then descending down the last 300-400m through steep and slippery terrain toward the stream. On the way there we first stopped at the helicopter landing clearance, where I thermal scoped a mammal that was rather slow-moving (like a loris) but couldn’t find it with the torch high up some tree that we couldn’t get a good angle on. Later on the hike, during the flat part, I thermal-scoped a small-ish squirrel-sized mammal poking half-way out of its nest. We shone on it, and it was indeed a medium-sized flying

squirrel. Jason thinks he saw most, if not all of it outside the nest, but I only got it poking its head out from the nest. Through waiting quietly for it to poke out and then changing its angle, we were able to obtain some photos which helped us confirm it as a **Temminck's flying squirrel**. I just want to point out that in the field guide to the mammals of Borneo, it says about this squirrel that there is only 1 record of a nest, about 0.5m above the ground, on the Malay Peninsula. This nest hole was about 3-4m above ground. Just an observation.



Temminck's flying squirrel (Petinomys setosus) - Confirmed by Quentin Phillipps

Down by the river, we actually had a very interesting time, but unfortunately we didn't get photos of everything that came by, in order to ID the animals. First we sat at the exact spot from where Shavez and his assistant Chun saw the Hose's civet. We turned off all the lights and I only used my thermal scope. Within minutes, we saw our first mammal. Even though we couldn't ID it – it was very interesting for me, so I want to describe the experience: first I saw a shrew-sized mammal swim into view of the thermal scope. It swam so efficiently, like a tiny otter. Then it hopped onto the rocks right in front of us, on the opposite

side of the small stream (3-4 m from where we were sitting). Then it continued to switch between traveling in-and-out of the water, as if it was equally comfortable traveling using both methods. I immediately whispered “aquatic shrew!” Everyone turned on their lights, and for several seconds, we saw a small, gray-ish (?) animal exhibiting this behavior – going back and forth between swimming and running on the rocks. I know that according to the mammal book, Borneo Water shrew doesn't occur in Tawau, and frankly it looked a little too gray to be a Borneo water shrew, but unlike the rest of the rodents we saw this evening, all of which stayed out of the water, this one chose the water as means of locomotion... We will never know what it was, until someone else goes there and sees the same animal exhibiting the same behavior and recording it.

Next, we took off our shoes (well I took mine off) and walked up the river to another spot. We sat at another location, and almost immediately after situating ourselves in viewing positions, me with the scope scanning back and forth, up and down, I saw another rodent come into view. I waited until it was “close enough” (considering there's not really a good sense of depth with the scope) and alerted everyone where it was, using a “clock” system (where 12 o'clock was right in front of where I was facing, and everything else was derived from that). Everyone got a decent look at a pair, if I remember correctly, of large-ish rodents coming toward the river but as soon as all the lights were on them they turned back and ran into the forest. Then, a similar thing happened with another rodent, a few minutes later, which came from another direction. The third encounter, only a few minutes later, again, was with a larger rodent. I saw it in the scope, running along the riverside rocks. I had everyone turn on their lights and we got a pretty decent view of a **Long-tailed porcupine**, which continued to run upstream along the rocks to the side of the river. It was, again, apparent that it chose to run **outside** the stream, even when it rock-hopped across it, which made me wonder again about the first animal we saw, which chose to swim rather than run on the rocks. I really do think it was a water shrew, but again, we'll never know. After that we walked to a third area down the stream, which was less successful. I slipped and knocked my camera on a rock, cracking the lens in 2 places. Miraculously, this didn't greatly affect my pictures for the rest of the trip. But regardless, that 3rd place wasn't very effective. I think we did see one more rodent that scattered before we got a chance to take a picture of it. We walked back to the first spot and waited for almost half an hour with nothing happening. Then we decided to hike back to the lodge,

as it was already midnight and the hike would take at least another hour or so, if we see nothing along the way. The only thing we spotted was another sleeping bird with the scope (a beautiful *Jambu fruit dove*) and the nest of the Temminck's squirrel, which was still warm. The final animal we identified, and one of the only ones at Tawau that was spot-lit for eye-shine as opposed to thermal-scoped, was a **Thomas's Flying Squirrel** that Jason found in the helicopter clearing before we got back to the lodge. After we got back to the lodge, around 1:00ish, I continued just past the lodge to see if we can see something on the 300m ridge walk before the "big drop" (200m steep descend from the lodge). During the very short walk, I scoped a *Brown Wood Owl*, which we would see several more times including the following evening at the next lodge. Back at the hostel, we did see the Malay civet again, which Jason tried to photograph before going to sleep.

The next morning we got up around 5:30, had a quick breakfast, and then started the hike down toward the HQ, which took us until about 11:15 – 11:30, but that's because after the first hour and a half or so we really picked up the pace. During the first hour we saw our trip's first **Sambar deer**, a **Treeshrew**, which we didn't get a picture of, but Shavez was pretty sure was a **Large Treeshrew**, some slender crows, and down at the end of the trail, right next to the HQ were rather

habituated Long-tailed Macaques and North Bornean Gibbons. We were also told that there were two sightings of Tufted Ground squirrels during the time we were up the mountain, between Km 3-4 along the main trail, including this morning. I guess that seemed like a good place to see them, but I just don't see when someone would be in that area during the prime time of the morning, unless they pretty much ran up the first few km, as the porters do when carrying up the bags and supplies. In fact, it was the porters who saw the tufted



North Borneo gibbon (Hylobates funereus), Tawau HQ

squirrel. We then met up with the rest of the group, had a refreshing cold shower and started our long drive toward Danum Valley.

In conclusion, I'd say Tawau is a great place with lots of potential. It's not Deramkaot in the sense that you're not covering as much ground, and it's certainly not the best place to see a clouded leopard, but it's a different habitat, and Shavez, who is both knowledgeable and enthusiastic, can at least point you to places where cool things could be seen. If I had any more nights, I'd spend them along the stream, just waiting at 1 point starting earlier on in the evening, where Shavez saw the Hose's civet. But also "Biodiversity Hotspot" would be a good place to sit off the trail and see if something cool comes along. Thanks again to Shavez and the cook for a lovely time up the hills!

Danum Valley

We were driven to Lahad Datu, where we had lunch and met Mike, who was to be our guide for the next 13 days. Mike already has a name for himself, and I know he doesn't want the extra attention (sorry Mike, I'll keep it short!) but it's noteworthy that Mike of 2019 compared to the Mike we met in 2015, is definitely Mike 2.0: from the enthusiastic, young dude who would stop for and try to identify every eyeshine, and even spotlight in the rain – to an experienced guide who can spot and identify everything around (mostly mammals, reptiles, birds and even amphibians) well before the clients, who will quickly identify and skip flying squirrels and striped civets after you've had enough of them, who knows the common and Latin names of almost all the species around, and is almost always right upon inspection of the photos later! I was especially impressed with the snake identification. Mike of 2019 gets way more excited about a rare rat than about "another" marbled cat, and can tell you on a given night if it's more of a Skunk, otter civet and moonrat night, or a clouded leopard night. He may also be one of the few people I met who has as dark sense of humor as I do.

So after a 3-ish hour drive to Lahad Datu, lunch, and another 2.5-ish hour drive, we got to Infapro lodge in the Danum Valley conservation area. Infapro was very sufficient and seemed like a great home-base from which to explore the area, without gates limiting your ability to go out. We spent 2 nights here and visited Danum Valley Field Center during the day in-between. On the way in, we saw **Pig-tailed macaques** and Jo's, Wendy's and Phil's vehicle also saw the first **Bearded Pigs** of the trip. We made it just in time for afternoon relaxation and settling in. On the way to dinner, I showed our newly united group members how to use the thermal scope, and immediately found a *Bornean wood owl* next to our cabins. After dinner we had our first night drive, where we found our trip's first **leopard cat** (up a tree, scared off by another individual on the ground), **greater mouse deer**, Thomas's and **black giant flying squirrels**, a *water monitor lizard* together with a *blue-eared kingfisher* over a little stream, our first of many sleeping *crested serpent eagles*, a few Malay civets and our trip's first **Bornean striped (formerly small-toothed) palm civet**, a *dark-headed cat snake*, an un-identified rat that I thermal-scoped on a tree to the side of the road, our first of many *buffy fish owls*, and finally – another long-tailed porcupine – making it two nights in a row for us! Mike was really curious about the rat we saw, saying it had a weird looking face, and that it's very close to where history's only Emmon's tree rat has been captured. Of course we aren't suggesting we saw the world's rarest rat... but it's a nice, curious thought 😊



Long-tailed porcupine (Trichys fasciculata) - Photo courtesy of Jason Woolgar

After the organized night drive, Jason and I took a walk down the main road, and saw another greater mouse deer, and some rats, which we never identified.

The following day we drove down to the Danum Valley Field Centre early in the morning, seeing mostly birds on the way in, including a cooperative pair of *Rhinoceros hornbills*, a *Large frogmouth*, a *Red-throated barbet*, and a few raptors. When we got to the valley, we walked over the long hanging bridge from where Jason has seen plenty of otters on previous trips. We didn't get very far up the bridge when our driver called us back to see a large troop of Maroon langurs right next to the road. And as we were trying to decide what to do, a **plain pygmy squirrel** ran all-over the trees next to the hanging bridge. We decided that we would hike one of the trails, and then go back for breakfast at Infapro, coming back after lunch for afternoon exploration. Before leaving, the group hit one of the trails that goes to the other side of the river, and saw both *Scarlet-rumped* and *Diard's trogons*, and heard one of the



Plain pigmy squirrel (Exilisciurus exilis)

Pittas calling near the trail, but didn't see it. I decided to stake out the otters but didn't get lucky. Before heading back, Mike also spotted a snake crawling right near the trail, but all we got



Maroon langur (Presbytis rubicunda)

of it was a glimpse and we never were able to ID it. Jo reported from people she had conversed with, that Orangutan hasn't been seen in the valley for a while now (several days, I believe).

Jason opted to stay in the valley and skip breakfast and lunch, and would meet back up with us upon our return. During the extra time in the valley, he saw more langurs, some squirrels and long-tailed macaques. The rest of us had breakfast and I had a long nap, while it rained for a good portion of the day. After lunch we drove back down to the valley



Philippine slow loris (Nycticebus menagensis)

and met with Jason. We hiked the same trails as the group did in the morning, along which there is a 3-story tower, from where I saw some squirrels, including the first **Cream-colored giant squirrel** of the trip. But the only other species I was able to identify was another Prevost's squirrel. One cool thing I got from that tower was an eye-level sighting of a *black&yellow broadbill*. On the way back to the lodge, right around when it got dark, we had a brief view of our first confirmed **Bearded pig**, and a leopard cat. After dinner we had another night drive where we saw our first **Philippine slow loris**, and most of the "regular" things, including *buffy fish owls*, Bornean striped palm civet, leopard cat, Thomas's and Red

giant flying squirrels, our first of many **Large flying foxes** a sleeping *crested serpent eagle* and a sleeping *crested fireback*.

On the way out of the Danum Valley conservation area in the morning, we had a very scenic drive out, and right around 10am we had a **Yellow-throated marten** on the road. Only the first vehicle (Jason, Jens and I) saw it, and stopped the car. But by the time we opened the window and tried to take a picture of it, it was gone.

Kinabatang River

We only spent 1 night on the Kinabatangan river, in hopes of finding a flat-headed cat. One shot-one kill. And long-story short – we didn't see one. Well, we probably did see one, at least the eye shine of one. But not enough to ID it. It was really too bad, considering we had perfectly low river levels, and supposed perfect conditions for finding it. In fact, both our guides (Mike and the local guide from the lodge) think we saw one.



Proboscis Monkey (Nasalis larvatus)

a storm was brewing in the background. Fortunately, we never got fully hit, and so by 15:30 we were out on the boat for an afternoon tour. During the boat ride, we saw both macaque species, tons of **Proboscis Monkeys**, Maroon and **Silvery langurs**, and supposed Island flying fox, several species of hornbills including *pieb*, *wreathed* and *wrinkled*, and a fresh orangutan nest, but without residents.

After dinner we went out on a night boat ride. We decided I would use the thermal scope carefully, since we knew the trees were going to be exploded with sleeping monkeys. And they were! I would just look through my scope, but not say anything unless I saw something I suspected was exceptionally interesting. During the night trip we saw our first **Island palm civet**, another slow loris, a few *salt-water crocodiles*, Malay civets and probably a leopard cat. Throughout the evening, I called the guides to stop the boat for mammals I saw on the shore, but the first few were rats: really big ones, and smaller ones. We didn't stop to ID them for the lack of time. One looked exceptionally white, so both Jason and I asked almost simultaneously “Was this a moon rat?” But Mike assured us “No, it was just a regular rat”.

We got to Sukau Greenview lodge around 12:00-13:00 in the afternoon and had a couple of hours to just chill and relax in the picturesque restaurant on the balcony overlooking the river. We got news, before we left for the trip, that Royle's trip just saw a cat beautifully the week before, and seeing how the river levels were still great, we had our hopes up. Also, supposedly our moon schedule, tide schedule, and all the things that Mike swears don't matter - lined up perfectly for us to see great stuff. We just hoped for no rain. But



Silvery langur (Trachypithecus cristatus)

After that, and knowing we only have 4 hours and 1 night to try to find a flat-headed cat, I promised I would try to identify my own scoped mammals with a torch rather than having the entire boat stop for riverside rats. I did keep looking through the scope, and saw several mammals, one of which looked to me like a medium-sized mammal (skunk-sized) and I thought it looked like a badger through the scope. But by the time I contemplated whether to have Mike stop the boat, we were already too far past it, so I let it go despite thinking it could be interesting. It also didn't have a pronounced tail, at least not in the scope. The river levels were perfect, and it was dry and warm out – perfect conditions for a flat-headed cat. We had several eye-shines, at least one of which our relatively inexperienced boat driver splashed off with a big wave (and then our local guide yelled at him in Malaysian). Mike bet 50% it was a Malay Civet, though Jo thought it looked like a cat, and specifically, not a leopard cat, leaving flat-headed as the most probably option. But again, we will never know. Though I did feel like our relatively inexperienced boat driver may have affected our chances of actually getting a decent view of such an easily-disturbed species, he was nowhere near what I had experienced back in Way Kambas in 2015, so I can't complain. Mike did jump after one animal and tried to circle around it, herding it back toward the river edge, but it didn't cooperate. After our coffee break, Mike is pretty sure we saw a flat-headed cat, specifically. But it will just stay as that. Of course you don't go looking for such a specialized and rare cat for just 1 night and actually expect to see it (or get disappointed if you don't). But we had knowingly decided to put most of our bets elsewhere, sacrificing extra time at Kinabatang. With that said, it's still a shame that we had such a perfect flat-headed cat conditions, and didn't see one. At least not confirmed.

In the morning we went out at 6am for a boat ride, where we again saw most of the monkeys, water monitor lizards, a few species of *hornbill*, *black&red broadbills*, a *brown barbet*, a *dollarbird*, a *blue-throated bee-eater*, *white-bellied sea eagle*, *grey-headed fish eagle*, and *lesser adjutants*. But surprisingly – no orangutan. Neither on Kinabatang nor at Danum Valley! After breakfast we headed out toward Telupid, where we arrived for lunch, and then headed in through the oil palm plantation to Deramakot.

Deramakot

As Mike will tell you – if you go to Deramakot (even in the “driest” season, which can turn very wet, very quickly) for 3-4 nights and expect to get clouded leopards, marbled cats and sun bears – you may get disappointed.. These animals can still be very hard! Long-story short, we didn't end up seeing a clouded leopard in 10 nights, despite being out for anywhere from 7.5-10 hours each night, plus a crazy early start every day at 5:30, going until 10-11am-ish. Our hours were insane. Though a clouded leopard was seen the night before we arrived, and 3 nights after we left (by Lennart, Stuart and Nick's group). I always try to “maximize” my success by researching the “best” season to go, but at Deramakot (again, as Mike will tell you) there are no seasons. Between



Bornean colugo (*Galeopterus borneanus*)

the 4 of us who have been to Deramakot before, we have visited during the months of February, March, May, July, and now October. To find the hard animals, you just have to put in the time.

On a less grim note, the mammal-watching system at Deramakot really works! The drivers are all fully trained to stop when Mike knocks on the roof, and they are also excellent spotters themselves. And this being Mike's specialty park – no animal goes undiscovered by him! No wonder this is the best place in the world to try to find these animals – both the condition of the roadside forest, and the fact that you are mostly there by yourself (especially at night, not during the mornings), make it very exceptional.



Banded palm civet (Hemigalus derbyanus)

One thing that has changed since last time, is that there are now up to 6 groups of eco-tourists at the reserve at any given point. This means that the drivers have to coordinate among themselves who goes where on what night, and at what time – to prevent a situation where you end up trailing another vehicle all night. This, of course, means you sometimes cross vehicles going the other way as coordinated by the guides, and sometimes you have to give up the best road (the road that goes to the river) and go another direction, for the sake of fairness among all park visitors. But after having been discovered as the world's best place to see a clouded leopard, that's the price of "fame" and success...

Over the 10 nights, we saw most of the regular animals, plus usually 1 less common species per day, sometimes 2:

Banded palm civet – surprisingly only seen on nights 1 & 2

Yellow-throated marten – afternoon drive of day 2, a



Yellow-throated marten (Martes flavigula)

sighting along the main road on a naked tree lasted almost a full minute, which is relatively prolonged for this spastic animal.

Marbled cat – on night 3 – Mike skillfully found an individual peeking its head out



Marbled cat (Pardofelis marmorata)

behind a main trunk of a tree off the Peacot road (? The one with the overgrown tractor, right after K10). We had some great looks at it, and I took a way-too-shaky video, as I do... After a while I just enjoyed looking at it through my binoculars, and suddenly I saw its long, marbled tail sticking out of the other side of the trunk. Finally, we got to see it go head-first down the side of the tree. I tried to take a picture of this, but it came out way too blurry (Jo got a less blurry shot). Regardless, an amazing encounter and probably my highlight of the trip!

Short-tailed mongoose – crossed the road late morning of



Day 4 (only Jens and Jo saw it), and then Jason saw it on his own on day 5 or 6 on the ecology trail.

Otter civet – only seen on night 5, but strangely, seen twice on the same night, 2 separate individuals spaced at least 9 km and 5 hours apart. The first one was a very brief sighting on our way out, around 19:00-ish. It was around K6, of an individual in dense vegetation, where we



Otter civet (Cynogale bennettii) - snapshots from a video

only saw its face, though it was very close and readily identifiable, but it quickly turned around and disappeared for good. Miraculously, a 2nd individual showed up on our way back around 11:30-ish, on K15 right where the loggers park their tractors. It was a perfect sighting for this species, as this individual was initially drinking, and then walked away nonchalantly out in the open, climbing a fallen trunk at one point where we could perfectly see it in its entirety.

Four-striped ground squirrel – morning of day 6 (only seen by Jens and me) after having seen some more “regular” squirrels – Jens spotted this ground squirrel in the dense bushes. After examining the pictures, there is no question that this is the rarely-photographed endemic four-striped ground squirrel.



Four-striped ground squirrel (Lariscus hosei) - there are very few photographs of this species anywhere

Ranee mouse and **Hose’s pygmy flying squirrel** – night 7 – I thermal scoped these two species. By this point I was starting to become pretty good with telling small mammals apart from sleeping birds in the scope, so I stopped for what looked “new”. The Ranee mouse was sitting in the dense vegetation around K20-ish (?) and we watched it for a few minutes, going toward the river. On the way back, around 23:30ish I scoped a small mammal running on a

branch and I called it “this isn’t going to be a giant squirrel or a civet”. So we stopped and spot-lit a small, mouse-sized animal running up-and-down a naked branch of a tree, and jumping onto the main trunk. It was white underneath and dark above, but at first we wondered it was a mouse or a tiny flying squirrel, until we actually saw it glide off, at which point Mike confirmed it was a Hose’s pygmy flying squirrel. Pretty neat!

Sunda Skunk – night 7, we saw an individual pretty late in the drive, back on K6-7, and got a decent video of it. We saw another individual on night 9 that was also out in the open, but didn’t stick around for a video.



Sunda skunk (Mydaus javanensis) – video snapshot



Malay Porcupine (Hystrix brachyura) - terrible record shot

Malay porcupine – night 8 – after not having seen anything new that night except a prolonged encounter with a **lesser mousedeer** that was confused and hanging out around the car, we tried the road going toward the entrance. This road was generally quiet, except for a really cool looking Bronzeback snake. But just before returning the lodge, around 2:30am, a beautiful Malay porcupine turned up on the road and quickly walked off. It was in perfect view as I tried to take a quick video, but my damn camera wouldn’t focus, so I

turned it off, I took another sharp video this time, just as it walked into the bushes, so all you can see are a bunch of quills (see record snapshot). Despite being listed as the rarest porcupine species on Borneo, Mike says these are the most common at Deramakot.

Binturong – night 10 – we had actually put some effort into trying to find one, especially for Jo who was still missing this species. Luckily on the last night, which was



Confused lesser mousedeer (Tragulus kanchil)



Binturong (Arctictis binturong)

also dry, I thermal-scoped an individual that was pretty well-hidden in a fruiting fig tree, with its back-end facing toward us, making it unfindable using a touch. We stuck around it for about 10 minutes, trying to get as best shots of it as we could, given its challenging position.

Among the more regular mammals, we also only saw **Yellow muntjacs** on the morning of Day 4 and in the afternoon of Day 9, and a **Large Sunda tree mouse**, AKA **Large Pencil-tailed tree mouse** on the same night as the Marbled cat. I got a recognizable video of it. Also on night 5, only a couple of minutes after our encounter with the second otter



Yellow Muntjac (Muntiacus atherodes)



Deramakot 'commoners': Leopard cat (*Prionailurus bengalensis*), Bearded pig (*Sus barbatus*), Malay civet (*Viverra zibetha*), Bornean elephant (*Elephas maximus*)

civet, we saw our only **Orangutans** of the trip, which I found in the thermal scope. It was a sleeping mother with a baby, and we had decided not to disturb them, so we planned to get there around dawn the next morning, but they were already gone, unfortunately. We marked the area very well, so we knew we were at the right place.. Oh well.

About the species we missed:

Clouded leopard – most often seen between kms 7-18 on the river road, but Mike is still trying to work out how often it's seen outside of that span (could be almost 50%). Mike has never seen a clouded leopard later than 1am. But of course, if you're still in "prime habitat" at 1am, you're not back to the lodge before 1:45-2:00ish at the earliest. I calculated the "statistics" based on everyone's trip reports on the blog, but only having 27 reports (including this one and Lennart's, who just posted his) spanning over only 4.5 years, isn't enough. And like Mike says, the seasons on Borneo are not always related to the month of the year, but to the mass fruiting events, and all the chain-reactions that are sparked because of them. Clouded leopards have been sighted on the river road in the middle of the day, during the morning on the drive out of the reserve, and other odd examples. But we didn't have such luck.

Tarsier – supposedly they can be seen with relative confidence on the ecology trail (that starts from the lodges up the hill, and end down by the HQ along the main road). We never spent the best time of the evening on that trail, since we were always out looking for the clouded leopard. Had we gotten it on any night (other than night 10), I would have spent more time on that trail right after dark, looking for tarsiers. We did only hike that trail once on our first night, after a "shorter" game-drive that ended at midnight, and once on our very last night. On night 1, I thermal-scoped the rare and endemic **Rapit rat** on this trail, which according to the Quentin Phillips' field guide,



Rapit rat (*Niviventer rapit*) - confirmed by Quentin Phillips. Left picture - courtesy of Jason Woolgar.

hasn't shown up over the past 20 years in over 50,000 trap nights all over Sabah! It also hasn't been recorded in this altitude, but Quentin Phillips himself identified this species for me, based on Jason and I's pictures. 20 minutes later, I also scoped what I thought would have been a tarsier, based on the height and position on the side of a tree pretty far off the trail, but we were never able to locate it with our torches, unfortunately.



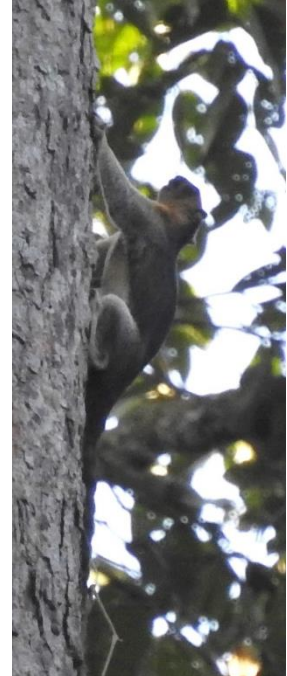
Rane mouse (*Haeromys margarettae*), Island palm civet (*Paradoxurus philippinensis*), Bornean orangutan (*Pongo gygmaeus*), Striped palm civet (*Arctogalidia stigmatica*)



Left: Thomas's flying squirrel (*Aeromys thomasi*), Diadem roundleaf bat (*Hyposideros diadema*)
Right: Cream-colored giant squirrel (*Ratufa affinis*), Black flying squirrel (*Aeromys tephomelas*)



On night 10, another interesting thing happened on the ecology trail. After an “early finish” to the night drive, around midnight, we had dinner and then Jason and I walked this trail, hoping to find a tarsier. Suddenly, at 1:20am, only a few minutes after entering the trail, we saw another group with flashlights coming toward us. First we thought they were a “general tourist” group who are looking for frogs and insects, so we tried to keep our distance from them. Later, we noticed they were holding heat scopes, and upon telling them we had found a diadem roundleaf bat, we had a quick chat and realized they were actually fellow mammal watchers Stuart Chapman and Nick Cox. What are the odds that I would meet Stuart, with whom I had corresponded only a few weeks earlier on the MW blog about thermal scopes, at 1:30am in the middle of the Bornean rain forests??? Such are the ways of Mammal watching 😊. We only wished we had made the introduction 20 minutes earlier, when I had scoped an immature **Ranee mouse**, centimeters away from the trail. It was so close the thermal scope wouldn’t focus on it at first, but luckily it was extremely calm. In general, it seemed that the animals on this trip were calmer than on my previous trip to Borneo. Could be the season? Maybe it’s the trade-off for the lack of abundance of rare species during more rainy periods? Only more data will be able to answer that.



During our stay at Deramakot, a moon rat was seen by another AAB group, in the rain as expected (apparently these animals don’t care about the rain, same as the skunks) and on our last morning before leaving the park, one of the other groups told me they had seen a flat-headed cat the night before. Other than that, one other group reported another binturong on the White House road, and another group saw an orangutan.

Something to note is that because Borneo’s seasons can be a few years-long (between mass fruiting and flowering events), and because the rain patterns vary greatly, different years are better for different species. For instance, Jul-Nov of 2017 was the best time for sun bears, with many seen on almost every trip during that period. Mike’s latest sun bear sighting when we met, was Nov 2018. Clouded leopards fluctuate too – I think 2019 isn’t a particularly great year for them, but they’re still being seen about twice a month at Daramakot if you put in the time. Marbled cats haven’t been seen since March (at least by Mike) at Deramakot, so we were pretty lucky. But 2019 is in fact a good year for flat-headed cats from the reports I’ve seen and from what I hear. When Jon, Jean-Michel and I were at Deramakot in May 2015, we were practically tripping over binturongs, but that hasn’t been the case since then. Some years, bearded pigs are almost absent, and this year they were pretty abundant at Deramakot, including a pregnant individual living in the forest on the small hill between the lodge and the main road. Orangutans, however, were almost non-existent this year – at all 3 Deramakot, Kinabatang and Danum Valley. Again, potentially because of fruiting trees. So when you plan your trip a long time in advance (Since AAB are fully-booked almost a year and a half in advance at any give moment), you really don’t know what animals will be easier to see when you get there. But that’s what makes nature as exciting as it is!

Kinabalu

After reading about Fioa Reid's success with the banded linsang at Kinabalu, I asked Mike if it was worth dedicating 3 nights to this park, or if 2 were enough. He insisted that we should do 3, so 3 nights it is! Apparently banded linsangs aren't terribly uncommon at Kinabalu, and this may be one of the better places to look for them. Ferret badgers are rarely ever seen (never by Mike) but perhaps the trash bins is one of the better places to look. Regarding Malay weasels, which Jon Hall and a few others have seen with relative ease back in the day – they may not be as common here anymore.

After lunch at Telupid We got to Mt. Kinabalu around 14:30ish. We met our guide, Mac, signed in, and were taken to our rooms at Hill Lodge, which is the last accommodation before the ~3.5km hike up to Timpohon gate. Around 16:30ish, after a massive afternoon rain storm Jason and I asked to be taken to the gate and then walk down to the restaurant, meeting everyone for dinner. Within a few minutes of hiking downhill we saw our first **Mountain treeshrew** and **Bornean black-banded squirrel** – both in the mist and diminishing light. But I got ID'able pictures of both. We would see both again.

After dinner the rain let off, and we were out. It was pretty cold, but we saw a few **Spotted Giant flying squirrels**, with Mac having found the first one, and me scoping the rest. Since the road is



Spotted giant flying squirrel (Petaurista elegans)

only ~3.5km up and down, most of the tour participants got off after the first go, and only Jason and I stayed for another round, asking to be dropped off by the bins. As soon as we got up to the bins we saw a **Sabah Giant Rat** inside the bins, leisurely eating and circling around the edge to go out. We had a few minutes of photo session with this rat, and then we let Mac and the driver go, staying at the bins to see what else we would find. We sat down on a ledge on the opposite side of the "road" from the bins, and turned our lights off, while I kept looking with the scope. Not a minute later I saw a largish animal coming from the bins toward us. I told Jason "Light! LIGHT!!", but not expecting anything this soon, he was still looking at the rat pictures on his camera, so we ended up missing this animal. We both thought this was too bad, as none of the rats crossed the road and climbed up to the forest behind us like this. In my head of course I was imagining we had just missed our ferret badger, but we'll never know. The animal in the scope hardly seemed to have a tail, but the again the Sabah rats didn't look like they had a tail in the scope either (despite having a very long tail in reality). Some of the smaller rats, however, had a pronounced tail in the scope. Staying longer at the bins, the animal that crossed and came behind us never showed up, but several more rats came up including mostly Sabah rats and a few other ones who we never got any pictures of. On the walk down we saw another couple of Spotted Giant Flying squirrels, and got to sleep around 2:30 again...

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Sabah Giant Rat (Leopoldamys sabanus)



Most of us asked to be taken up for sunrise. Jens went to the observation platform for photography, Jo went with Mac on a bird-watching tour of one of the side trails, and Jason and I were taken to Timpohon gate again. First, we went to the observation platform on top of the gate, and waited for several minutes as the sun came up. When nothing was happening, I decided to visit the bins again, and Jason stayed at the platform. We would text each other if we saw anything of interest. While I was hiking down, Jason had his first encounter with **Whitehead's pigmy squirrel**, while at the bins I was overloaded with **Mountain ground squirrels**, **Black-banded squirrels**, **Jentink's and Brooke's squirrels**, **Polynesian**, **Tioman** and **Grey tree rats** (all identified by Quentin Phillips), Black-banded squirrels, and maybe Low's squirrels, but not confirmed.

After a late breakfast, during which we saw some more Bornean black-banded squirrels and a very pretty *Temminck's sunbird*, it started raining again, which was a perfect time for a nap. I was still missing the Whitehead's squirrel, and so I decided to go to the platform in the afternoon to try to find it. I walked up the road slowly, hoping for a Malay weasel to show up, but it never did. Even though October is the rainy season on the mountain, meaning there are substantially less vehicles than in July (according to everyone who has been there before), there were still vehicles every few minutes during the day. I got to the viewing platform, where I reconnected with Wendy, Phil, Jo, Jason and Mac, but didn't see pigmy squirrels. There were black-banded squirrels everywhere including on the platform itself, and plenty of rats running below. We hiked back before it started to get dark, and saw a *Whitehead's trogon*, which was nice. We also got to the lookout spot right in time for one of the most magical sunsets I have ever seen – with amazing colors and a very dynamic movement of mist, clouds, and clear spots, making everything glow pink and orange. Truly breathtaking.

We went on a second night drive, which was particularly cold! Nevertheless, we actually had a rather fruitful night drive for Kinabalu, Thermal-scoping more Spotted giant flying squirrels, a **Horsefield's flying squirrel** (spot-lit by Jo, not by the thermal scope), a Common/Island, a Bornean stiped and a **Masked palm civet**, and to our surprise – a slow loris. We hadn't realized slow lorises even existed in these altitudes, at such cold conditions. While half of the tour participants got off after the first round again (and missed all the carnivores), Jo, Jason and I thought the extra round really paid off, and then we headed back to the bins to see the Sabah giant rats again, and some smaller rats, including a *Maxomys* species I'd be happy to have ID'ed (see picture on the next page).

The following day was to be our last full day at Kinabalu, and last full day of the trip. I really wanted to see the Whitehead's pigmy squirrel, so I spent from sunrise to about 8am on the platform above Timpohon gate where Jason saw his, but to no avail. Rats and squirrels were omnipresent below the platform. At one point we went back to the bins, which barely had any activity this morning since they have been cleared out by the park staff. Jason took a long trail



Left to right: Grey Tree Rat (*Lenothrix canus*) – ID confirmed by Quentin Phillips, Bornean black-banded squirrel (*Callosciurus orestes*), Whitehead's pigmy squirrel (*Exilisciurus whiteheadi*)

Left to right: Mountain ground squirrel (*Dermomys everetti*), Polynesian rat (*Rattus exulans*), Mountain tree shrew (*Tupaia montana*), Jentink's squirrel (*Sundasciurus jentinki*), Brooke's squirrel (*Sundasciurus brookei*) – all confirmed by Quentin Phillips



Horsfield's flying squirrel (Iomys horsfieldi)

something, and I asked her what it was. She replied “**Whitehead's pigmy squirrel**”. I was mindblown – this is exactly how I imagined it. We enjoyed breakfast and the pigmy squirrel for several minutes as it climbed up, down, and around the tree – disappearing and reappearing at different spots. What a fabulous little squirrel – it has to be one of my favorites.

After breakfast we went back up to Timpohon gate in hopes of the ferret badger coming to the bins, which Mac saw a few times back in 2014 right around 10am. But this was not to happen today. I went for a long nap, and when Jason came to the room he spent most of the morning watching the **mountain treeshrew** that runs around the back yard of the Hill Lodge cabins. When I woke up, it was still raining on-and-off and I spent the afternoon watching the treeshrew and a Jentink's squirrel that was hanging around as well.



Maxomys Spp. (Whitehead's Maxomys?) – Photo courtesy of Jo Dale

Tonight was to be our last night drive of the trip, and it sure was interesting. I will never forget that dreadful spotlighting session, where my contacts had previously started to itch, so I put on my glasses instead. The only other time I took my contacts off and replaced them with glasses, I put them back in before the night drive, because it was very uncomfortable to use the scope with glasses, and I didn't want to give up doing it, as I was the only person who had one, and it was always finding things for us. But tonight I just thought “Eh, it's the last night drive, and we have already seen so much more than I expected here”. The dumbest part was that I found a setting I could use the scope without my glasses, so I actually had my glasses tucked under my poncho, hanging on my hoodie. So every time I spotted something it would take me almost 30 seconds or so to fish for my glasses, find them, manage to get them out from between the hoodie and the poncho, and finally wear them. These 30 seconds happened to be 20 seconds too long when a **Banded linsang** crossed the road, and everyone saw it but me! It may have been a very brief sighting, but I realized I was missing something special as everyone became very quiet and I was in the back-middle seat, trying to fish for my glasses, thinking “come'on, glasses! I need to be standing up already, I'm missing something special – I know it! Shit, where

are the damn glasses? Oh, here they are! Shit, why am I not standing up yet?!". So by the time I put them on and stood up to see what was going on, everyone simultaneously announced it was a banded linsang, and it was already gone. Not a tail, not the back-end. Nothing. Suddenly, Jens jumped out of the vehicle and walked over to where the linsang entered the bushes, but I asked him to come back, and for everyone to turn off their lights so we can try to squeak it back in as Fiona Reid did. But it was gone. And I was so mad at myself. What a mistake – and it was all my fault.

Other than this episode, during the night drive we saw some more spotted giant flying squirrels and a few striped civets again, and I thermal-scoped a **Jentink's flying squirrel**, at the exact same spot where we saw the Horsefield's flying squirrel the previous night (both have been confirmed by Quentin Phillips), making it our 8th species of flying squirrel for the trip! There was another spotted giant flying squirrel on the same tree. When we got back up to the bins, there were some more of the same rats again, and Jason and I were the only ones that decided to walk back down slowly as opposed to drive back down to the lodge, hoping we would catch up with the linsang. But it didn't happen, which of course left me with a sore feeling as I went to sleep.

A few notes about Mount Kinabalu:

It seems that not a lot of mammal watchers go there anymore, but with such a high concentration of small rodents, it's not surprising that banded linsangs are seen more frequently here than in other places. In fact, I bet just the bins (when they're full) themselves are a hotspot for the occasional small carnivore. I wouldn't be surprised if badgers and weasels are frequent in the area as well. There hasn't been a Malay weasel reported from Kinabalu by mammal watchers in years, but it could just be because there haven't been as many reports. Another note – October is the wettest month according to Quentin Phillips's book. I'm not sure if this is good or bad. In theory, one would think this is bad. But there are substantially fewer visitors, so this could have played in our favor. The fact is that we saw no fewer than 20 confirmed species on Mt. K in just 3 nights. I wonder if this could be even more during the dry season, if a combination of thermal scope and a raised vehicle is used.

The last note is that I think having a vehicle, and specifically a high safari vehicle could make a large difference between not seeing much and seeing a lot. Other than at the bins, plus a couple of giant flying squirrels and civets, we didn't see much while walking at night.

Trip List:

Although I missed a few of my main target species, notably the Clouded leopard, Western Tarsier and Flat-headed cat, and despite my personal disaster with the Banded Linsang, I'm still proud of my list, and am excited of everything I saw on my first proper trip to Borneo. 65 species seen, 63 ID'ed to species level:



*Jentink's flying squirrel (Hylopetes platyurus) -
Courtesy of Jo Dale. ID confirmed by Quentin Phillips*

		Tawau	Danum Valley	Kinabatang	Deramakot	Kinabalu	Thermal scoped
Large Flying Fox	<i>Pteropus vampyrus</i>		X	X	X		
Diadem roundleaf bat	<i>Hyposideros diadema</i>				X		Some
The trefoil horseshoe bat	<i>Rhinolophus trifoliatius</i>	X	<-- Jo, Brian and Wendy only				
Mountain treeshrew	<i>Tupaia montana</i>					X	
Treeshrew spp. (Large, according to Shavez)	<i>Tupaia spp.</i>	X					
Bornean colugo	<i>Galeopterus borneanus</i>	X	X		X	X	Most
Philippine slow loris	<i>Nycticebus menagensis</i>		X	X	X	X	Some
Red langur	<i>Presbytis rubicunda</i>	X	X	X	X		
Silvered langur	<i>Trachypithecus cristatus</i>			X			
Proboscis monkey	<i>Nasalis larvatus</i>			X			
Long-tailed macaque	<i>Macaca fascicularis</i>	X	X	X	X		
Pig-tailed macaque	<i>Macaca nemestrina</i>		X	X	X		
North Borneo gibbon	<i>Hylobates funereus</i>	X		X	X		
Bornean orangutan	<i>Pyngo pygmaeus</i>				X		X
Prevost's squirrel	<i>Callosciurus prevostii</i>	X	X		X		
Horse-tailed squirrel	<i>Sundasciurus hippurus</i>	X					
Brooke's squirrel	<i>Sundasciurus brookei</i>					X	
Jentink's squirrel	<i>Sundasciurus jentinki</i>					X	
Plantain squirrel	<i>Callosciurus notatus</i>				X		
Ear-spot squirrel	<i>Callosciurus adamsi</i>				X		
Bornean black-banded squirrel	<i>Callosciurus orestes</i>					X	
Bornean pigmy squirrel	<i>Exilisciurus exilis</i>		X				
Whitehead's pygmy squirrel	<i>Exilisciurus whiteheadi</i>					X	
(Cream-colored) giant squirrel	<i>Ratufa affinis</i>	?	X		X	X	
Bornean mountain ground squirrel	<i>Deromomys everetti</i>					X	
Four-striped ground squirrel	<i>Lariscus hosei</i>				Jens & Tomer		
Hose's pygmy flying squirrel	<i>Petaurillus hosei</i>				X		X
Temmink's flying squirrel	<i>Petinomys setosus</i>	X	<-- Jens, Jason and Tomer only				X
Horsefield's flying squirrel	<i>Iomys horsfieldi</i>					X	
Jentink's flying squirrel	<i>Hylopetes platyurus</i>					X	X
Black flying squirrel	<i>Aeromys tephomelas</i>		X		X		
Thomas's flying squirrel	<i>Aeromys thomasi</i>	X	X		X		
Spotted giant flying squirrel	<i>Petaurista elegans</i>					X	Some
Red giant flying squirrel	<i>Petaurista petaurista</i>	X	X		X		
Polynesian Rat	<i>Rattus exulans</i>					X	
Tioman Rat	<i>Rattus tiomanicus</i>					X	
Grey Tree Rat	<i>Lenothrix canus</i>					X	X
Rapit Rat	<i>Niviventer rapit</i>				X		X
Spiny-tail spp. (Most likely Whitehead's)	<i>Maxomys spp.</i>					X	
Sabah giant rat	<i>Leopoldamys sabanus</i>					X	Some
Dark-tailed tree rat	<i>Niviventer cremoriventer</i>	X					X
Large Sunda tree mouse	<i>Chiropodomys major</i>				X		X
Ranee mouse	<i>Haeromys margarettae</i>				X		X
Malayan porcupine	<i>Hystrix brachyura</i>				X		
Long-tailed porcupine	<i>Trichys fasciculata</i>	X	X				1 of 2
Yellow-throated marten	<i>Martes flavigula</i>	?	X		X		
Sunda skunk (teledu)	<i>Mydaus javanesis</i>				X		
Banded linsang	<i>Prionodon linsang</i>		Everyone except me ☹ -->			X	
Bornean striped palm civet	<i>Arctogalidia stigmatica</i>		X	X	X	X	Some
Island palm civet	<i>Paradoxurus philippinensis</i>			X	X	X	Some
Malay civet	<i>Viverra zangalunga</i>	X	X		X		Some
Otter civet	<i>Cynogale bennettii</i>				X		
Masked palm civet	<i>Paguma larvata</i>		Jo, Jason and Tomer only -->			X	X
Binturong	<i>Arctitis binturong</i>				X		X
Banded civet	<i>Hemigalus derbyanus</i>	X			X		
Short-tailed mongoose	<i>Urva brachyurus</i>		Jo, Jens, Jason -->			X	
Marbled cat	<i>Pardofelis marmorata</i>				X		
Leopard cat	<i>Prionailurus bengalensis</i>		X	X	X		Some
Bornean pigmy elephant	<i>Elephas maximus</i>				X		
Bearded Pig	<i>Sus babatus</i>		X		X		
Lesser mousedeer	<i>Tragulus kanchil</i>				X		
Greater mousedeer	<i>Tragulus napu</i>		X		X		Some
Sambar deer	<i>Cervus unicolor</i>	X	<-- Jens, Jason and Tomer only				
Bornean yellow muntjac	<i>Muntiacus atherodes</i>				X		
Red muntjac	<i>Muntiacus muntjak</i>	X	<-- Jens, Jason and Tomer only				X