

Trip Report: Borneo (Sabah, Malaysia)
30th July - 9th August and 26th August - 8th September 2010

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My role as a trainer and mentor for the 2010 UNESCO/Earthwatch/Shell Foundation ‘Business Skills for World Heritage’ programme offered the opportunity to make a tangible contribution to conservation of globally significant natural sites with the additional bonus of visiting some amazing locations during the associated events. The programme required two visits to Sabah, Malaysia on the island of Borneo: during the first week based at Mount Kinabalu Park (itself a World Heritage Site) we prepared to deliver the Business Skills programme and then during a second, longer visit we were joined in the Danum Valley Conservation Area by staff from three partner World Heritage Sites. Mt Kinabalu and Danum are two of the prime natural sites on Borneo, which Charles Darwin referred to as a “luxuriant hothouse made by nature herself”, with Mt Kinabalu being a centre of endemism thanks to its altitude being the highest in Asia between the Himalayas and New Guinea, and Danum being a protected area containing large tracts of primary lowland dipterocarp forest.

I approached the programme with high expectations of what we would be able to achieve and what we would experience - and the reality was even better. The work with the high quality team and our partner sites was intense and highly rewarding, whilst the amazing scenery and biodiversity that we were exposed to provided an excellent first insight into Asia, which I had never previously visited. In addition to the successful Business Skills programme delivery, my personal highlights included admiring Mt Kinabalu’s stegosaurus-like profile jutting dramatically above the surrounding lowlands, hiking through the primary Danum forest whilst the immense dipterocarp trees were undergoing a rare mast-fruiting season, experiencing dawn overlooking the Danum Valley as the mist rolled in and out to alternately reveal and obscure the contours of the landscape below, enjoying a close encounter with a flock of Bornean Bristlehead’s and seeing a Great Argus at its display ground.



Bornean Bristlehead [Danum Valley Field Centre]; Great Argus [Danum Valley Field Centre]

This trip report summarises the birding and nature watching that I was able to fit around the ‘Business Skills for World Heritage’ programme, including four days on my own around Kota Kinabalu, Tambunan and Mt Kinabalu prior to the first event, time spent with the team in and around Mt Kinabalu Park during the training event, early-morning and early-evening birding in Danum during the Business Skills programme at the Danum Valley Field Centre (DVFC) and a final morning on my own near Tambunan. See the trip list at the end of this report for details on each of my bird and mammal sightings.

Kota Kinabalu (KK), the gateway to Sabah, was unlike anything I had previously experienced. The hotel was familiar enough, but on its doorstep was the ‘hawkers market’, a jumble of stalls and food sellers offering a myriad of exotic looking seafood – fresh from the South China Sea on the other side of the sea wall and barbequed on the spot – plus seaweed, noodles, Asian delicacies and fresh fruits of all colours and textures. Despite the rain it was noisy – people of many ethnic origins busy working, chatting, eating – and energizing, especially to someone feeling lethargic after travelling from Houston via LAX, Taipei and Kuala Lumpur. Welcome to Asia! This was going to be fun...



Kota Kinabalu market

Keen to make the most of my time, I caught a dawn taxi up to the Rafflesia Information Centre (RIC) near Tambunan, some 62km into the Crocker Ranges at an altitude of ca. 1350m. The trip took about 1¼ hours and by 7:15 I was pacing the road outside what has become one of the favoured locations for visiting birders to see several key Borneo endemics. Every single bird I saw was a lifer and pretty quickly I had seen both Mountain and Golden-naped Barbet that were joined in fruiting trees right outside the RIC gates by Cinereous and Ochraceous Bulbuls. Noisy flocks of Chestnut-crested Yuhina made smash-and-grab raids alongside Chestnut-hooded Laughingthrushes (little did I then know how common these two endemics are within their altitude range) and tiny Black-sided and Yellow-rumped Flowerpeckers showed well.



Mountain Barbet [Tambunan]; Chestnut-crested Yuhina [Tambunan]

Even when the roadside action died down, shrubs behind the Information Centre continued to attract various new and exciting species, whilst Mountain Serpent-Eagles soared overhead. By 11:00 it was hot, the birding was slow and I was in need of jet-lag recovery back at the hotel, so the driver dropped me back to KK. Total charge for the trip was MYR 250 (~USD 60), which could probably be reduced by pre-booking a specific taxi driver rather than taking the next cab off the line.

After spending the next morning exploring the KK market and fishing port, then buying supplies to take with me for my two-night stay at the Hill Lodge inside Mt Kinabalu Park, I travelled by taxi (costing MYR 150) up to the park some 2 hours drive away. Sutura Sanctuary Lodges who run the in-park accommodation would not let me check in until mid-afternoon, so I dropped off my luggage and set off for some easy birding along the loop road boardwalks near to the park entrance at ca. 1500m altitude.



Yellow-bellied Warbler [Mt. Kinabalu]; Mountain Tailorbird [Mt. Kinabalu]

This proved to be productive as at the forest edges I saw Yellow-bellied, Yellow-breasted and Mountain Leaf-Warblers, Mountain Tailorbird, plus Orange-headed and Bornean Whistling-Thrushes and my only Bornean Forktail and Maroon Woodpeckers. Not bad for roadside birding in the middle of the day! After a late lunch at the canteen restaurant (I later learned it was much better value to eat at the restaurant just outside the park gates) I headed up to my room about a kilometre inside the park. Although there is a cost premium to be paid for staying inside the park, it was certainly a pleasure during such a short stay to be able to stand at the room door and see prime hiking and birding forest only yards away – even if unrelenting heavy rain kept me confined to the porch for the rest of the day, watching only the ever-reducing visibility.



Orange-headed Thrush [Mt. Kinabalu]; Chestnut-hooded Laughingthrush [Mt. Kinabalu]

On each of my two days in the park I followed the same routine: pre-dawn taxi (MYR 24) up to the Timpohon gate at ca. 1885m altitude, birding around the viewing platform and the power station until the light improved, then gradually working my way down the Bukit Ular trail and a short road section before taking the Mempening trail down to the park entrance at ca. 1500m altitude for a well earned lunch after 7 hours of birding. Although both mornings dawned clear, by mid-morning the skies were overcast and heavy rain set in around noon, so no birding was possible on either afternoon.



Eyebrowed Jungle-Flycatcher perched on my tripod [Mt. Kinabalu]; Grey-throated Babbler [Mt. Kinabalu]

I had considerable success each morning at the power station including seeing several endemics, such as a shy Pale-faced Bulbul, noisy Bornean Treepie and a friendly Eyebrowed Jungle-Flycatcher that sat on my tripod between sallies for insects. Short-tailed and Grey-throated Babblers were common at the Timpohon gate, whilst Golden-naped Barbets, Mountain Black-Eyes and Island Thrush fed at close range. On the Bukit Ular trail I encountered several small groups of Red-breasted and Crimson-headed Partridges, located a tiny Bornean Stubtail singing its high-pitched song and found a distant pair of Fruit-hunters. The Mempening trail was generally quieter (although this comparison may be somewhat unfair as I only got there around mid-morning each day), but I still enjoyed encounters with mixed flocks containing Velvet-fronted Nuthatch, Bornean Whistler and many Snowy-browed Flycatchers. My only Whitehead's species was also found here – not the Trogon, Broadbill or Spiderhunter that birders are usually targeting, but a Pigmy Squirrel busily nibbling at its favourite tree bark. Surely one of the cutest little mammals I have ever seen.



Velvet-fronted Nuthatch [Mt. Kinabalu]; Golden-naped Barbet [Mt. Kinabalu]



Bornean Whistler [Mt. Kinabalu]; Mountain Leaf-Warbler [Mt. Kinabalu]



White-throated Fantail [Mt. Kinabalu]; Bornean Stubtail [Mt. Kinabalu]



Black-sided Flowerpecker [Mt. Kinabalu]; Indigo Flycatcher [Mt. Kinabalu]

After two full mornings of birding and afternoons of constant rain I returned to KK to meet up with the rest of the team and we then travelled together back to Mt Kinabalu Park for our training event hosted in the park's headquarters building. A full work schedule and extensive evening preparations precluded much birding over

the next few days, although a dawn exploration around our hotel (located above Kundasang at ca. 1500m altitude) revealed an apparent juvenile Fulvous-chested Jungle-Flycatcher – see photograph below and notes in the bird list. This would represent a significant altitude range extension from the 900m limit mentioned in Myers’ book, so any input on this ID would be gratefully received!



Snowy-browed Flycatcher (juv.) [Mt. Kinabalu]; Fulvous-chested Jungle-Flycatcher (juv.) [Kundasang]

Also noteworthy in Kundasang was the unintentional modern-art homage to the great spine of Mt Kinabalu, as created by subsidence along the road that has bent some steel reinforcement beams into a mirror of the ridgeline profile behind – see photo below.



Mt Kinabalu’s dramatic ridgeline and roadside mirror image

A morning hike with my teammates, from the Timpohon gate down to the park headquarters (guided by the Head Ranger), added the striking Short-tailed Green Magpie, some squirrels and a chance to learn more about the plants in the park - including the world’s tallest moss, several miniature orchids, finely structured fungi and the many nepenthes or pitcher plants found within the park. I, for one, had not previously appreciated that the pitchers actually grow from the extended tips of the plant’s leaves.

After concluding the workshop and before catching my flight from KK to Sydney I squeezed in a late-afternoon walk around the park headquarters where Black-sided Flowerpecker, Sunda Laughingthrush and Glossy Swiftlets were seen, followed by a final morning on the Bukit Ular trail where I enjoyed excellent views of a shy Everett’s Thrush working its way along the trail in the early morning gloom.

Mt Kinabalu was an excellent place to bird and the food everywhere was superb. Many specialities are found (or not found, as in the case of my search for the Whitehead's Trogon, Broadbill and Spiderhunter), albeit with an apparently modest bird density that is presumably reflective of the altitude range. The primary forest is also replete with unique flora and lots of interesting mammals. It appears that most park visitors either stay near the park entrance and the short trails there, or head straight for the Timpohon gate and then up the summit trail. This leaves the intermediate trails down from the Timpohon gate practically deserted. As a result, I essentially had the Bukit Ular and Mempening trails to myself, encountering only two individual birders (including Tomas who gave me some valuable tips) and two small tour groups during my entire stay.



Tree and vines on Bukit Ular trail [Mt. Kinabalu]; View towards the 4000+m high summit of Mt. Kinabalu



Short-tailed Green Magpie [Mt. Kinabalu]; Pitcher plant [Mt. Kinabalu]

Two weeks later I returned to Borneo to join my colleagues and nine representatives from Gunung Mulu (Malaysia), Ha Long Bay (Vietnam) and Manas (India) World Heritage Sites for our 'Business Skills for World Heritage' event. In contrast to the mixed conditions experienced during the first week, the weather in KK was spectacular. Mt Kinabalu loomed in the clear air, seemingly on the outskirts of the city.

After an entertaining - if slightly alarming - introduction to tropical health and safety from fieldguides.com we were soon airborne, flying right past Mt Kinabalu on our way to Lahad Datu on the east coast of Borneo. A quick lunch and pit-stop to buy last minute essentials for the next 11 days (soap, washing powder, pringles and beer featured highly) saw us ready for the bumpy two hour drive into the Yayasan Sabah managed Danum Valley Conservation Area where the 'Business Skills for World Heritage' programme was hosted at the Danum Valley Field Centre (DVFC). As a portent of good things to come, passengers in the first vehicle saw an Asian Elephant on the access road, whilst those of us in the second vehicle were treated to the same

impressive vistas across the rolling, lowland dipterocarp forest landscape and a Crested Fireback walking across the road.

Our modest accommodation was in the scientist's quarters, a series of three and four bed cabins conveniently located less than ten minutes walk from the main DVFC restaurant and research facilities that we used during our stay for all meals and work sessions. Buffet dinner and preparations for the morning's activities were followed by a quick look at the Buffy Fish-Owl that regularly perches near to the centre's lights.

Each morning over the next 10 days I tried to squeeze in what exploring and birding was possible between dawn and the start of our work commitments. On typical days this meant heading out the door at about 05:30, returning for a shower at 07:30 and then starting the class sessions at about 08:15. Since the Tambun River and primary forest were literally on our doorstep, this left plenty of time for walks combining birding and mammal watching. In addition, casual day-time birding from the DVFC balcony with the workshop participants during lunch and coffee breaks was often productive (hornbills, malkohas, monkeys and even a Crested Goshawk clutching a small bird in its talons) and on a few days we finished our Business Skills activities before dark, so were able to enjoy some leisure time at the Tambun River watching the evening fly-over of birds to their roost sites.



Black-and-yellow Broadbill [Danum Valley Field Centre]; Lizard sp. [Danum Valley Field Centre]

In this way I was able to enjoy early-morning views of many interesting birds, including some glorious views of several bulbuls, babblers and broadbills, spiderhunters, serpent-eagles and shamas, not to mention hornbills, monkeys and gibbons. The sound of the forest each morning was electric and bird activity was high, although at times IDs were confusing for a first time visitor!



Black-and-red Broadbill showing off its broad, minty-green bill [Danum Valley Field Centre]



Gunung Mulu, Manas and Ha Long Bay team members in action [Danum Valley Field Centre]

One of the benefits of being based at Danum was the opportunity to learn from the scientists in residence. This we did initially by participating in a guided orientation walk with one of the post-doctoral researchers studying the dipterocarp trees in the area. These trees are immense, sometimes reaching over 80m in height, and together the 200+ dipterocarp species in Borneo comprise about 80% of the emergent and canopy species in these lowland forests. Dipterocarps are characterised by having winged fruit and this season Danum was experiencing an exceptional synchronous fruiting of dipterocarps not seen for many years, termed a dipterocarp mast-fruiting. As a result the trees were producing large amounts of winged fruits that could be seen spinning their way down to the forest floor. The trigger for these once or more a decade events is under investigation, but my understanding is that it may be related, amongst other things, to El-Nino Southern-Oscillation and predator-satiation theory (which suggests that irregular intervals between fruiting seasons may help to keep seed predator populations low whilst the huge numbers of seeds produced makes it unlikely that the whole crop of seeds will be eaten).



Immense Dipterocarp sp. tree and winged seed [Danum Valley Field Centre]



Whiskered Treeswift [Danum Valley Field Centre]

Another way that we learnt from the scientists in residence was by working with them, including two days as volunteers gathering data for PhD students who were analysing erosion processes in different habitats and studying dipterocarp plant herbivory damage in variously sized forest fragments. This proved to be a real bonding experience with our World Heritage Site colleagues and together we were quickly able to contribute in a value-adding way. Since most of our work involved gathering data in the field, we were also able to spot a few birds and mammals during these sessions. Late one afternoon, after concluding our work for the day, Manas team member Bibhuti and I stayed in the forest for an hour of birding and amongst other things we were treated to wonderful close up views of a flock of about seven Bornean Bristleheads in the trees around us. Fantastic – I had not dared hope that we would be so lucky.



Buffed Fish-Owl [Danum Valley Field Centre]; Red Leaf Monkey [Danum Valley Field Centre]



Dragonfly sp. [Danum Valley Field Centre]; Tree Frog sp. [Danum Valley Field Centre]

In addition to the long-term scientists who were busy researching and the Business Skills team busy conducting our training programme, there were also a series of university student groups and a small number of tourists present. The tourists were spending their days birding around the extensive trail system and the communal dinner table proved to be an excellent venue for exchanging sightings, stories and tips on where to find target species. I benefitted immensely from regular conversations with Mike (from Toronto) and Owen (visiting from Oxford University) in particular and on a couple of mornings we birded together, enjoying a male Great Argus at its display site and three Striped Treeshrews performing in the under-storey.

As well as the treeshrews, I saw a host of different squirrels – in fact I found it amazing (compared to e.g. South America) how many different types of squirrel there are in this rich forest. I saw at least four additional species to add to those seen at Mt Kinabalu, including the cute and hyperactive Plain Pigmy Squirrel. Night drives along the access road added Thomas’s Flying Squirrel and two beautifully coated Leopard Cats amongst other species.



Striped Treeshrews [Danum Valley Field Centre]; White-crowned Shama [Danum Valley Field Centre]



Whitehead's Pigmy Squirrel [Mt. Kinabalu]; Plain Pigmy Squirrel [Danum Valley Field Centre]



Rufous-tailed Tailorbird [Danum Valley Field Centre]; Horsfield's Babbler [Danum Valley Field Centre]

Another highlight was our pre-dawn trip to a lookout tower about 20 minutes drive from DVFC, where we spent almost two hours enjoying the landscape below as the first light broke through the darkness and then emergent dipterocarps appeared above the low-lying mist, disappeared as the mist swirled and finally reappeared on the ridgelines as the sun rose.



First light at the River Tambun and across the mist filled Danum Valley [Danum Valley Field Centre]

This was followed by a short visit to the upscale Borneo Rainforest Lodge (BRL) located about a one-hour drive from DVFC in primary dipterocarp forest on a quiet bend in a river. BRL's facilities include an excellent canopy walk with five large spans between massive trees, but arriving as we did at 10:00 we did not see much wildlife. A Banded Broadbill was one welcome sighting and this canopy walk would surely be a productive spot to spend the early morning hours looking for canopy birds and mammals. The access road to BRL did, however, deliver my only sighting of a Helmeted Hornbill (they were calling frequently at DVFC, but I never managed to actually see one there), whilst a Grey-and-buff Woodpecker was the only woodpecker, apart from a tiny Rufous Piculet, that I saw during the entire Danum trip. Despite this, the highlight of the visit was probably our swim in a wonderfully refreshing waterfall that preceded lunch on the lodge's balcony, complete with a cappuccino! How would we ever survive back at DVFC?

Towards the end of our stay in Danum the focus switched from early-morning birding to early-morning hiking. On the penultimate day I joined colleagues Catherine and Simon at 05:45 for a near 3 hour hike on the Waterfall trail. We saw Great Argus, Crested Fireback, Blue-headed Pitta (my only seen pitta of the trip) and Striped Wren-Babbler whilst almost making it to the waterfall, before having to turn around to get back in time for our next work session.



Lizard sp. [Borneo Rainforest Lodge]; Gliding Lizard sp. [Borneo Rainforest Lodge]

Then, on our final day, we visited the grid trails and enjoyed an exceptional display by a Great Argus as he called from a perch, paraded around his arena and cleared leaves from the forest floor. And that was the end of the hiking and birding - not a bad way to finish! On these trails in particular my leech-socks proved their worth, as I picked up quite a collection of new friends along the way - both on my leech-socks and hands. Fortunately leeches in Borneo are not dangerous and carry no diseases (they just look rather repulsive). Once they are on you, a dab of tropical strength aerogard is sufficient to send them scurrying away.



Great Argus [Danum Valley Field Centre]

Later that day, having concluded the work programme, we departed DVFC for KK. The fun was not quite over, however, as we encountered an Asian (Borneo Pygmy) Elephant on the access road. Perhaps sharing our sadness at our departure, he blocked the road for several minutes. Being some 2.5m tall and 3 tonnes in weight it was a pygmy only in name and since he was the clear boss in our relationship we waited until he left the road before attempting to safely pass. His final trumpet call and half-hearted charge were an appropriate farewell salute.



Asian (Bornean Pygmy) Elephant [Danum Valley Field Centre]

Danum Valley is a great birding and wildlife watching destination and staying at the DVFC offers a rare opportunity to both learn about and experience the intricacies of this beautiful forest and the complex ecosystem of which it is part. I may not have seen as many birds as is typical for birders visiting this area, but I really felt like I had experienced Danum nonetheless, all whilst working with my colleagues and World Heritage Site teams to make the most of the ‘Business Skills for World Heritage’ programme.

A celebratory dinner back in KK allowed us to enjoy one of the amazing buffets prepared each night during the Ramadan period and then it was time to confirm plans for follow-up contact and bid our farewells. It was certainly sad to see such good, albeit new, friends and colleagues depart, but we share some great memories from our time learning, working and birding together! On my last morning in Borneo I once again made a brief trip by taxi to Tambunan, where I finally secured glimpses of a Whitehead’s Broadbill. Then it was back to KK to prepare for my return to Houston.

Over the two visits to Borneo I identified a total of some 125 bird species (of which 124 were lifers) plus many interesting mammals and other fauna. This certainly leaves plenty of scope for additions on future trips!



With ‘Business Skills for World Heritage Sites’ participants and colleagues¹

¹ Photo courtesy of Simon Reid, Earthwatch



1. Bird Trip List²

(Confirmed personal sightings only for DJS – excludes birds heard only unless otherwise indicated;
Birds in order of appearance on the plates of Susan Myers' Birds of Borneo, Princeton Field Guides,
2009)

Locations where species seen in sequence of travel:

KK = Kota Kinabalu city and adjacent lowlands;

RIC = Rafflesia Information Centre near to Tambunan about 62km from KK (early morning visits on July 31st and September 7th to mid-elevation roadside forest at ca. 1350m altitude);

MtK = Mt. Kinabalu Park, including forest trails and roadside between ca. 1550 and 1885m altitude (from afternoon of August 1st through morning of August 3rd, plus morning of August 7th, late-afternoon of August 8th and morning of August 9th);

DVFC = Danum Valley Field Centre, including trails and roadside in primary and secondary lowland dipterocarp forest in the Danum Valley area (Tambun River catchment) at between ca. 180 and 300m altitude (typically 05:30 to 07:30 and occasionally 17:30 to dusk from August 28th through September 6th);

BRL = Borneo Rainforest Lodge, including canopy walk and trails in primary lowland dipterocarp forest in the Danum Valley at ca. 180m altitude (late-morning on September 4th only).

Red-breasted Partridge (*Arborophila hyperythra*) **E** [MtK] *: Heard frequently and seen a few times during early walks down the Bukit Ular trail. May suffer from disturbance or even predation by feral dogs encountered on the same trail?

Crimson-headed Partridge (*Haematortyx sanguiniceps*) **E** [MtK]: Heard frequently and seen a few times during early walks down the Bukit Ular trail. May suffer from disturbance or even predation by feral dogs encountered on the same trail?

Crested Fireback (*Lophura ignita*) [DVFC]: Single bird, presumably *nobilis* subspecies, seen on the road entering DVFC in the late afternoon and another walking along the Waterfall trail at dawn.

Great Argus (*Argusianus argus*) [DVFC] *: Regularly heard calling. One male observed at its display ground on the Coffin trail that we visited twice in the early morning (initially seeing the bird pacing around its display site, then singing from a perch prior to clearing leaves from the arena). Another was seen walking on the Waterfall trail at dawn.

Oriental Darter (*Anhinga melanogaster*) [DVFC] *: One individual flew in at dawn along the Tambun River and perched for over an hour near to the suspension bridge that crosses to the research grid trails.

Crested Serpent-Eagle (*Spilornis cheela*) **E** [DVFC]: Individuals and pairs of endemic *pallidus* subspecies seen regularly, both perched and in flight.

Mountain Serpent-Eagle (*Spilornis kinabaluensis*) **E** [RIC] *: Mid-morning, one pair in flight seen well from the road, just up the hill from the RIC entrance.

Crested Goshawk (*Accipiter trivirgatus*) **E** [DVFC] *: One individual of endemic *microstictus* subspecies seen from the DVFC balcony during a coffee break as it flew past with a small bird clutched in its talons.

Black Eagle (*Ictinaetus malayensis*) [MtK] *: Pair seen soaring near Timpohon gate at the start of the Mt Kinabalu summit trail.

Ruddy Cuckoo-Dove (*Macropygia emiliana*) **E** [RIC]: One individual of endemic *borneensis* subspecies seen along road on second visit to RIC. Noticeably larger than the Little Cuckoo-Dove seen along the same road.

Little Cuckoo-Dove (*Macropygia ruficeps*) **E** [MtK; RIC] *: Endemic *nana* subspecies seen regularly along road between Bukit Ular and Mempening trails and heard along the Mempening trail. Also seen along road near RIC entrance. Appears much more rufous than illustration in Myers (confusingly, its colour appears to more closely match the book's Ruddy-Cuckoo-Dove illustration).

Emerald Dove (*Chalcophaps indica*) [DVFC]: Regularly seen flying low and fast through primary forest and also across the access road.

Green Imperial-Pigeon (*Ducula aenea*) [DVFC]: Individuals and pairs seen on several occasions, both perched in the canopy and in flight over forest or the river.

Mountain Imperial-Pigeon (*Ducula badia*) [MtK; RIC] *: My first Imperial-Pigeon species. One individual seen very

² **First sighting ever for DJS**; * = photo available from trip; **E** = Borneo endemic species; **E** = Borneo endemic subspecies

well as it called in the early morning from a high roadside perch between Bukit Ular and Mempening trails. Others seen less well at both Mt Kinabalu and RIC.

Long-tailed Parakeet (*Psittacula longicauda*) [DVFC] *: A pair was well seen in the early-morning as they called from atop a canopy tree visible from the Waterfall trail.

Raffles's Malkoha (*Phaenicophaeus chlorophaeus*) [DVFC]: A pair observed in mid-storey together with a late-afternoon mixed flock along the Waterfall trail that included both Racket-tailed and Bronzed Drongo, amongst others.

Chestnut-breasted Malkoha (*Phaenicophaeus curvirostris*) **E** [DVFC]: A pair of the endemic *microrbinus* subspecies observed at close quarters from the DVFC balcony during a coffee break as they flew in and perched in an adjacent tree.

Mountain Scops-Owl (*Otus spilocephalus*) [MtK]: **Heard only** near Timpohon gate shortly before dawn.

Buffy Fish-Owl (*Ketupa ketupu*) [DVFC] *: Attractively coloured owl, seen wonderfully well on several occasions perched at night near to the lights of the DVFC buildings. Did not see it hunting, so unclear as to whether it was looking to catch the large moths etc. attracted by the lights (these are not mentioned by Myers as a food source) or waiting for rodents to pass by.

Glossy Swiftlet (*Collocalia esculenta*) [MtK] *: Seen regularly, including nesting in the office buildings at the Mt Kinabalu Park entrance.

Silver-rumped Needletail (*Rhaphidura leucopygialis*) [DVFC] *: Identified from the suspension bridge as they were regularly seen flying over that section of the Tambun River.

Whiskered Treeswift (*Hemiprocne comata*) [DVFC] *: This stunning treeswift was well seen perched along the Tambun River, where its head was in perpetual motion checking out the insect action. Over extended periods it typically returned to the same perch between sallies and on its return demonstrated a characteristic, but brief, wings-spread pose that took several attempts to successfully photograph.

Stork-billed Kingfisher (*Pelargopsis capensis*) [DVFC]: Seen along the Tambun River, where it flew shortly after dawn, paused briefly on the suspension bridge with its great red bill shining brightly, and then continued on its way.

Red-bearded Bee-eater (*Nyctornis amictus*) [BRL]: A pair observed at midday calling from mid-storey vines near to the Jacuzzi trail at the Borneo Rainforest Lodge. Did not hear or see them at DVFC.

Rhinoceros Hornbill (*Buceros rhinoceros*) [DVFC; BRL]: My first hornbill species. This spectacular hornbill was seen most days from the DVFC balcony or flying relatively low across the Tambun River. An active nest hole could be seen in the distance across the river. Perched birds were also seen at BRL.

Helmeted Hornbill (*Buceros vigil*) [DVFC; BRL]: Confirmed sighting only at BRL, where one flew over the access road with its uniquely long tail confirming its identity. Calling birds were abundant at DVFC, but hard to locate in the canopy.

Wrinkled Hornbill (*Aceros corrugatus*) [DVFC]: One individual seen from the suspension bridge at dusk as it flew over the Tambun River.

Wreathed Hornbill (*Aceros undulatus*) [DVFC]: One individual seen from the suspension bridge at dusk as it flew over the Tambun River.

Mountain Barbet (*Megalaima monticola*) **E** [RIC] *: Several individuals were well seen feeding at fruiting trees during my July visit to the Crocker Range. Despite an apparent continued abundance of similar fruiting trees, they were only heard during the September visit.

Golden-naped Barbet (*Megalaima pulcherrima*) **E** [RIC; MtK] *: On my first visit to the Crocker Range I glimpsed a few of these glamorous barbets in the company of Mountain Barbets, then subsequently had better, close quarters views at Mt Kinabalu where I photographed pairs feeding in small bushes close to both the power station and the viewing platform above the Timpohon gate.

Blue-eared Barbet (*Megalaima australis*) [DVFC]: One individual seen in the early morning feeding near to the DVFC balcony.

Rufous Piculet (*Sasia abnormis*) [DVFC]: Several sightings of this tiny and attractive woodpecker along various trails.

Maroon Woodpecker (*Blythipicus rubiginosus*) [MtK; RIC]: A noisy pair seen well in a wet gully along the roadside boardwalk near to the Mt Kinabalu Park entrance. Others heard but not seen again until my final morning in the Crocker Range when another pair was encountered at the roadside just below the RIC entrance.

Gray-and-buff Woodpecker (*Hemicircus concretus*) [BRL]: A pointy-headed pair seen in the mid-storey along the access road to BRL whilst we waited for the lodge to open the gate for our visit.

Whitehead's Broadbill (*Calyptomena whiteheadi*) **E** [RIC]: Frustratingly, I failed to locate this endemic at Mt Kinabalu – apparently it was being seen most regularly from the road, not along the Bukit Ular and Mempening trails where I had been focusing my efforts. Finally, on my second visit to the Crocker Range I secured brief views of a partially obscured individual perched inside a fruiting tree near to the RIC entrance, however after I tried moving to a presumed better vantage point I could not relocate it from either location!

Black-and-red Broadbill (*Cymbirhynchus macrorhynchos*) [DVFC] *: A pair of these striking broadbills were seen shortly after dawn on several days in bushes and trees along the Tambun River and were sufficiently slow moving to allow for good photography. As with the black-and-yellow Broadbill, the bill is a wonderful minty-green colour unlike

that of any bird I have seen outside of Borneo.

Banded Broadbill (*Eurylaimus javanicus*) [BRL]: One seen calling at close range from the canopy walkway during a hot, late-morning visit.

Black-and-yellow Broadbill (*Eurylaimus ochromalus*) [DVFC; BRL] *: My first broadbill species. A pair of these small and active broadbills was seen on several occasions shortly after dawn and shortly before dusk in trees along the Tambun River. Also heard during our brief walk on the BRL trails.

Blue-headed Pitta (*Pitta baudii*) **E** [DVFC]: My first pitta species. Heard calling a couple of times along the trails, then a female was encountered hopping up the Waterfall trail shortly after dawn. Complete with bright rufous-red coloration, blue tail, black and white wings and large size this made for a wonderful bonus during the morning's hike with Simon and Catherine.

Black-and-crimson Pitta (*Pitta ussheri*) **E** [DVFC]: **Heard only** along the trails through the research grid, where it was well seen by others during our stay.

White-browed Shrike Babbler (*Pteruthius flaviscapis*) **E** [MtK]: One of the endemic *robinsoni* subspecies seen in a mixed flock near to the road below the Timpohon gate.

Bornean Whistler (*Pachycephala hypoxantha*) **E** [MtK] *: Encountered on several occasions on the trails, often in the company of other species.

Black-and-crimson Oriole (*Oriolus cruentus*) **E** [MtK]: One of the endemic *vulneratus* subspecies seen near to the power station shortly after dawn.

Dark-throated Oriole (*Oriolus xanthonotus*) **E** [DVFC]: One brightly coloured individual of the endemic *consobrinus* subspecies seen in a later-afternoon mixed flock with drongos and malkohas.

Bar-winged Flycatcher-shrike (*Hemipus picatus*) [RIC]: Briefly seen sitting in a mixed flock at RIC on both occasions I visited the Crocker Range.

White-breasted Woodswallow (*Artamus leucorhynchus*) [KK]: Several seen in roadside trees near to a pedestrian suspension bridge over the Turan River at 130m altitude after descending from Mt Kinabalu back towards KK.

Green Iora (*Aegithina viridissima*) [DVFC; BRL]: Glimpsed at DVFC, followed by excellent eye-level views from the BRL canopy walk – this and the Banded Broadbill were the only species seen there in the late-morning heat.

Pied Fantail (*Rhipidura javanica*) [DVFC; BRL]: Common across all habitats in Danum, especially disturbed edges and open spaces.

White-throated Fantail (*Rhipidura albicollis*) **E** [RIC; MtK] *: Endemic *kinabalu* subspecies was common, especially in edge habitat, across all elevations visited in the Mt Kinabalu Park and Crocker Range.

Spotted Fantail (*Rhipidura perlata*) [DVFC]: Only conclusively identified once inside the forest in a mixed flock on the Waterfall trail.

Ashy Drongo (*Dicrurus leucophaeus*) [RIC; MtK] *: Regularly recorded at Mount Kinabalu, especially around the power station where they were amongst the first of the pre-dawn arrivals at the moth buffet.

Bronzed Drongo (*Dicrurus aeneus*) [DVFC] *: One individual observed along the Waterfall trail, sitting quietly in a late-afternoon mixed flock that also included the Racket-tailed Drongo.

Greater Racket-tailed Drongo (*Dicrurus paradiseus*) **E** [DVFC] *: One fully-racketed individual of the endemic *brachyphorus* subspecies observed along the Waterfall trail, sitting quietly in a late-afternoon mixed flock that also included the Bronzed Drongo.

Hair-crested Drongo (*Dicrurus hottentottus*) **E** [MtK]: One individual of the endemic *borneensis* subspecies seen at the dawn power station show.

Slender-billed Crow (*Corvus enca*) [DVFC]: Seen regularly. One of the first birds to call each morning, typically leaving a roost near to my room at 05:30.

Short-tailed Green Magpie (*Cissa thalassina*) **E** [MtK] *: A strikingly beautiful magpie with sparkling eye, small groups of the endemic *jeffreyi* subspecies were seen on a couple of occasions near to the Timpohon gate and along the nearby trails. Foraging very actively in the lower story and on the ground around me, they seemed oblivious to my presence.

Bornean Treepie (*Dendrocitta cinerascens*) **E** [MtK; RIC] *: Several individuals seen every morning that I visited the power station at dawn, otherwise only one noisy group seen on the trails at Mt Kinabalu and one individual seen in the Crocker Range at the RIC.

Crested Jay (*Platylophus galericulatus*) [BRL]: Distinctive machine-gun like call heard only at midday on a trail near to the river at BRL. Not heard or seen at DVFC.

Bornean Bristlehead (*Pityriasis gymnocephala*) **E** [DVFC] *: A flock of approximately 7 individuals of this highly sought after monotypic endemic family was encountered in the late-afternoon on the Waterfall trail, where they had been seen at a similar time and location the day before. We spent an amazing 5 or more minutes watching them from close range as they moved around a tree fall clearing making their noisy calls – binoculars were hardly necessary! At one point four birds were lined up together on the same branch in good light, but glided away to another perch just as I had my tripod located for the perfect shot! I actually only managed to take one shot during the entire encounter. One of the

birding highlights of the trip.

Temminck's Sunbird (*Aethopyga temminckii*) [RIC]: The only sunbird of the trip, well seen twice in small fruiting trees in the Crocker Range.

Streaky-breasted Spiderhunter (*Arachnothera affinis*) **E** [DVFC] *: Endemic *everetti* subspecies seen daily on regular perches in trees and low flowers near to the DVFC buildings and the Tambun River. Bill noticeably thicker than the Little Spiderhunter.

Little Spiderhunter (*Arachnothera longirostra*) **E** [DVFC] *: Endemic *buettikoferi* subspecies seen or heard daily from the DVFC balcony as it fed from nearby flowers. Also seen in other edge habitat near to the Tambun River.

Yellow-breasted Flowerpecker (*Prionochilus maculatus*) [DVFC]: One confirmed sighting in modest sized trees along the access road and Tambun River. As with all the flowerpeckers that are a diminutive 8-10cm long from bill to tip of the tail it was usually impossible to be certain what one was seeing amongst the leaves on trees that can themselves be up to 80m tall! And then of course the female flowerpeckers were even harder to tell apart than the males...

Yellow-rumped Flowerpecker (*Prionochilus xanthopygius*) **E** [MtK; RIC; DVFC]: Males were encountered on several occasions, including along the roadside from Kota Kinabalu to Mt Kinabalu, in the Crocker Range and on the roadside at Danum, where a point plank, eye level encounter even showed the tiny red crown stripe.

Black-sided Flowerpecker (*Dicaeum monticulum*) **E** [RIC; MtK] *: Tiny, but fortunately regularly encountered in the gardens of the lodges inside Mount Kinabalu Park feeding from low bushes, which together with the male's bright red breast-patch makes it easier to ID than most flowerpeckers. Also seen in the Crocker Range at RIC.

Greater Green Leafbird (*Chloropsis sonnerati*) [DVFC]: I only conclusively identified a couple of individuals along forest trails - based on presence of yellow throat in female and heavier build than Lesser.

Lesser Green Leafbird (*Chloropsis cyanopogon*) [DVFC] *: Regularly seen in low and mid-storey edge and forest interior habitat. ID generally required observation of the female without the yellow throat, as the only real distinguishing feature in the field between the Greater and Lesser males are their size.

Velvet-fronted Nuthatch (*Sitta frontalis*) **E** [MtK] *: Very attractive, endemic *corallipes* subspecies was an active mixed flock participant encountered a couple of times on the Mempening trail where one finally stayed still long enough for me to photograph it in the same pose as Myers' plate illustration - peering out from a tree as it shimmied its way up the trunk.

Dusky Munia (*Lonchura fuscans*) **E** [RIC; DVFC] *: Small parties encountered in shrubs inside the RIC and also in shrubs along the access road to DVFC.

Chestnut Munia (*Lonchura atricapilla*) [KK]: Small party encountered along roadside travelling from Kota Kinabalu to Mt Kinabalu.

Grey Wagtail (*Motacilla cinerea*) [RIC]: One individual observed on the roadside verge outside the RIC before an advancing truck chased it up the valley.

Common Hill-Myna (*Gracula religiosa*) [DVFC]: Small parties seen on several occasions in tree tops.

Island Thrush (*Turdus poliocephalus*) **E** [MtK] *: The endemic *seebohmi* subspecies was well seen on two separate days feeding on moths at the power station. Two weeks later in the New Guinea highlands it was interesting to compare with the subspecies seen there that does not show the same black upper chest, rufous below combination of the Bornean subspecies that is so reminiscent of an American Robin.

Orange-headed Thrush (*Zoothera citrina*) **E** [MtK] *: The endemic *aurata* subspecies was encountered both in the dark interior of the Bukit Ular trail and at the open scrub edges next to the buffet restaurant at the park entrance! One individual I photographed had several coloured rings, presumably having been a 'victim' of the University of Montana research programme that had recently completed its 2010 mist nesting activities in the park.

Everett's Thrush (*Zoothera everetti*) **E** [MtK] *: Myers describes this species as 'shy and secretive' and despite several early morning searches it proved hard to find - although Tomas, who I met several times, had several prolonged encounters at various muddy locations along the Bukit Ular trail on the same mornings as I was searching elsewhere on the same trail! On my final morning at Mt Kinabalu I was relieved to finally run into one individual moving along the upper sections of the Bukit Ular trail just below the wooden ladder and proceeded to follow it for several hundred meters as it worked its way around the sharp bends on this narrow section.

Fruit-hunter (*Chlamydochaera jefferyi*) **E** [MtK]: Another highly desired, handsome endemic that I struggled to find! Eventually, after hearing a few calls, I saw a pair mid-morning along the Bukit Ular trail, but their location in the upper part of the mid-storey precluded any good photographs. Did not see or hear them in the Crocker Range where other reports indicate they are more easily found.

Bornean Whistling-Thrush (*Myophonus borneensis*) **E** [MtK] *: Regularly observed, both during the dawn feeding frenzy at the power station and at the open scrub edges next to the buffet restaurant at the park entrance where it shared space with the Orange-headed Thrush.

White-browed Shortwing (*Brachypteryx montana*) **E** [MtK]: **Heard only**, the endemic *erythrogyna* subspecies was heard a few times along the Bukit Ular trail, but I never managed to see one.

Oriental Magpie-Robin (*Copsychus saularis*) **E** [DVFC] *: The endemic *adamsi* subspecies with black belly and white

under-tail seen several times. One individual in particular has taken to rendering his clear song each morning from a tree next to the DVFC restaurant!

White-crowned Shama (*Copsychus stricklandii*) **E** [DVFC; BRL] *: This species has been lumped by some taxonomists within the widespread White-rumped Shama (*Copsychus malabaricus*), as per Clements. However, the markedly different song and consistent plumage differences apparently convinced Myers to retain it as a full Bornean endemic for her book. Encountered daily along the access road, forest trails and in tree fall clearings, being one of the first to commence its loud songs just before first light. Generally unwary whilst belting out its various loud songs, allowing close approach.

Bornean Forktail (*Enicurus borneensis*) **E** [MtK]: Observed emerging from the forest at one of the boardwalks near to the Mt Kinabalu Park entrance, with one probable additional sighting when what was likely one of these shot past me along a stream alongside one of the upper trails in the forest.

Malaysian Blue-Flycatcher (*Cyornis turcosus*) **E** [DVFC] *: A pair of flycatchers that were finally identified as the endemic *turcosus* subspecies were encountered in trees between the research labs and the Tambun River, and several others were subsequently seen on the various trails.

Indigo Flycatcher (*Eumyias indigo*) [MtK] *: Regular dawn visitor to the power station, with other occasional sightings throughout open areas in the park.

Snowy-browed Flycatcher (*Ficedula hyperythra*) [MtK] *: The commonest flycatcher on the various trails where it often perched very low – one memorable dawn incident saw Tomas nearly stand on one that was perched only inches above the Bukit Ular trail's surface. A juvenile that I photographed at close quarters had me confused for quite a while.

Fulvous-chested Jungle-Flycatcher (*Rhinomyias olivacea*) [MtK] *: I am currently assuming that a mystery juvenile flycatcher photographed in a patch of forest in our hotel's grounds at ca. 1500m altitude above Kundasang (a few km east of Mt Kinabalu Park) was this species, although it could possibly be a juvenile Grey-chested Jungle Flycatcher. I saw at least two individuals and my photographs show a pink legged flycatcher with scaly and rufous juvenile plumage. According to Myers' book, the Fulvous-chested's upper range limit is some 900m above sea level and the Grey-chested's is some 500m, so my observation may represent a considerable altitude range extension. Any feedback from other's on this ID would be gratefully received!

Eyebrowed Jungle-Flycatcher (*Rhinomyias gularis*) **E** [MtK] *: Another regular dawn visitor to the power station, with other occasional sightings on the park's trails. After arriving one misty pre-dawn at the power station I placed my tripod on the trail and next thing I knew this endemic species was using the tripod as a perch between sallies for insects! With all the mist between us in the half-light, some creative bounce flash photography was required. Using reflections from the overhead vegetation to minimise back-scatter certainly improved the result!

Black-and-white Bulbul (*Pycnonotus melanoleucos*) [DVFC]: Seen only on a couple of occasions as single males silently crossed paths with me on both the grid trails and Waterfall trail.

Straw-headed Bulbul (*Pycnonotus zeylanicus*) [DVFC] *: Pairs regularly heard and sometimes seen singing their loud, burbling song from the tops of small shrubs and trees along the Tambun River.

Pale-faced Bulbul (*Pycnonotus leucops*) **E** [MtK] *: Seen only once when it arrived at the power station at dawn to glean moths from the roof.

Yellow-vented Bulbul (*Pycnonotus goiavier*) [MtK; DVFC]: Several seen along the roadside between Kota Kinabalu and Mt Kinabalu and also along the Danum access road.

Olive-winged Bulbul (*Pycnonotus plumosus*) [DVFC]: Pair seen in open habitat next to my room.

Cream-vented Bulbul (*Pycnonotus simplex*) [DVFC]: Tough to distinguish from the following species. I think we managed it!

Red-eyed Bulbul (*Pycnonotus brunneus*) [DVFC] *: Regularly seen in disturbed habitat along the Tambun River.

Hairy-backed Bulbul (*Tricholestes criniger*) [DVFC]: One bird seen in a clearing on the Waterfall trail at the same time as the Bristleheads.

Yellow-bellied Bulbul (*Alophoixus phaeocephalus*) [DVFC] *: A few individuals seen in mixed flocks along various trails.

Ochraceous Bulbul (*Alophoixus ochraceus*) [RIC; MtK] *: Seen both in the Crocker Range at RIC and on the roadside boardwalks at Mt Kinabalu Park.

Cinereous Bulbul (*Hemixos flavala*) **E** [RIC]: Split in Myers' book from Ashy Bulbul (*Hemixos flavala*) where the Bornean race, *connectens*, has a distinctive puffy white throat. Seen well only in the Crocker Range at RIC.

Pacific Swallow (*Hirundo tahitica*) [DVFC] *: Regularly observed perched near to the DVFC buildings and on boulders in the Tambun River. Myers' book refers to this as the House Swallow. The only non-lifer of my trips to Borneo as I saw this species for the first time in Papua New Guinea (after the Mt Kinabalu trip but before visiting Danum!).

Yellow-bellied Warbler (*Abroscopus superciliaris*) **E** [MtK] *: The endemic *schwaneri* subspecies was frequently seen, especially in edge-habitat.

Mountain Tailorbird (*Orthotomus cuculatus*) [MtK] *: Frequently seen, especially in edge-habitat.

Bornean Stubtail (*Urosphena whiteheadi*) **E** [MtK] *: Very high-pitched song of this tiny, tail-less, pink-legged bird

heard with some regularity on the upper trails and very well seen on two occasions near to the top of the Bukit Ular trail where I took some reasonable photographs.

Sunda Bush-Warbler (*Cettia vulcania*) **E** [MtK] *: The skulking, endemic *oreophila* subspecies was only seen on a couple of occasions on the trails.

Yellow-breasted Warbler (*Seicercus montanis*) **E** [MtK]: The small and striking endemic *montis* subspecies was an active mixed flock participant seen several times, however it proved difficult to photograph.

Mountain Leaf-Warbler (*Phylloscopus trivirgatus*) **E** [MtK] *: The endemic *kinabaluensis* subspecies was another regularly seen, active mixed flock participant.

Chestnut-crested Yuhina (*Yuhina everetti*) **E** [RIC; MtK] *: This endemic species was common. Active, chattering groups of 4+ individuals seen on almost every day spent in these areas.

Black-capped White-Eye (*Zosterops atricapillus*) [RIC; MtK] *: Small numbers well seen at both Mt Kinabalu and in the Crocker Range.

Mountain Black-Eye (*Chlorocharis emiliae*) **E** [MtK]: Distinctive endemic 'white-eye' was seen only once when a pair was found in the early morning gleaning from small trees right next to the viewing platform above the Timpohon gate.

Grey-headed Babbler (*Stachyris poliocephala*) [DVFC]: As with many of the skulkers, this proved to be hard to find in Danum. A small party was seen well on the Waterfall trail early one morning.

Gray-throated Babbler (*Stachyris nigriceps*) **E** [MtK] *: The endemic *borneensis* subspecies was one of the easier babblers to locate, given its vocal nature and propensity for small parties to work edge habitat.

Chestnut-winged Babbler (*Stachyris erythroptera*) **E** [DVFC]: The endemic *bicolor* subspecies was seen on a few occasions and a pair was observed at a nest in a small bush ca. 1m off the ground on the grid trails near to the suspension bridge.

Rufous-fronted Babbler (*Stachyridopsis rufifrons*) [DVFC]: Heard on a few occasions along various trails, but never seen.

Bold-stripped Tit-Babbler (*Macronous bornensis*) **E** [DVFC]: The endemic *bornensis* subspecies was the most commonly heard and seen babbler at Danum, where small parties were very active in the understory. Incessantly moving, it proved infuriatingly difficult to photograph.

Temminck's Babbler (*Pellorneum pyrrogenys*) **E** [RIC]: Endemic *canicapillus* subspecies seen foraging in understorey opposite entrance to RIC.

Black-capped Babbler (*Pellorneum capistratum*) **E** [DVFC]: One individual of the endemic *morrelli* subspecies was well seen early one morning on the grid trails when it popped across the trail next to me and then walked off through the leaf litter.

Sooty-capped Babbler (*Malacopteron affine*) **E** [DVFC]: Several sightings of the endemic *phoeniceum* subspecies around the trails.

Scaly-crowned Babbler (*Malacopteron cinereum*) [DVFC] *: Many sightings, although not easy to visually separate from Rufous-crowned. Responded strongly to playback.

Rufous-crowned Babbler (*Malacopteron magnum*) **E** [DVFC]: Many sightings of the endemic *saba* subspecies, although not easy to visually separate from Scaly-crowned. Responded strongly to playback.

Horsfield's Babbler (*Malacocincla sepiarium*) **E** [DVFC; BRL] *: Endemic *harterti* subspecies seen regularly on the trails where pairs were often making a lot of noise in the lower storey. The only skulker of which I have a good photograph from Danum.

Short-tailed Babbler (*Malacocincla malaccensis*) [MtK; RIC]: Small number of individuals of the endemic *poliogenys* subspecies well seen at both Mt Kinabalu and in the Crocker Range.

Striped Wren-Babbler (*Kenopia striata*) [DVFC]: Only seen once, when an individual perched near to the path during an early morning hike on the Waterfall trail.

Mountain Wren-Babbler (*Napothera crassa*) **E** [MtK]: **Heard only**. Called several times on the Bukit Ular and Mempening trails, but never seen. On one occasion I came across a tour group being guided by Susan Myers who was trying to coax a distant group of these Wren-Babblers up a slope towards the Mempening trail.

Sunda Laughingthrush (*Garrulax palliatus*) **E** [MtK] *: Small numbers of the endemic *schistochlamys* subspecies seen on a couple of occasions from the Timpohon gate down to the park headquarters.

Chestnut-hooded Laughingthrush (*Garrulax mitratus*) **E** [RIC; MtK] *: One of the commonest birds up on Kinabalu, where several were seen each day. Also regularly seen in the Crocker Range.

Rufous-tailed Tailorbird (*Orthotomus sericeus*) [DVFC] *: Several were seen, principally in edge habitat near to the road and river.

Dark-necked Tailorbird (*Orthotomus atrogularis*) [DVFC]: One pair was seen during an early morning walk on the grid trails.

Combined total: 125 (121 seen, 4 heard only), with 124 of these confirmed "first time ever" species for DJS of which 27 are Bornean endemic species and a further 33 are Bornean endemic subspecies ...

2. Mammal Trip List³

(Confirmed personal sightings only for DJS; Mammals in order of appearance on the plates of Junaidi & Francis' A Field Guide to the Mammals of Borneo, The Sabah Society, 2007)

Striped Treeshrew (*Tupaia dorsalis*) E [DVFC] *: Three individuals encountered and photographed during an early morning walk on the grid trails whilst they participated in apparent mating behaviour.

Mountain Treeshrew (*Tupaia montana*) E [MtK]: This montane species was seen feeding on the ground near to the Timpohon gate.

Red Leaf Monkey or Maroon Langur (*Presbytis rubicunda*) E [DVFC] *: Reddish-orange with a dark face, a very attractive endemic primate that was seen with great regularity in groups of ca. 10 individuals in the forest, including in trees very close to the DVFC balcony.

Long-tailed Macaque or Crab-eating Macaque (*Macaca fascicularis*) [DVFC] *: Also common, where troops of up to 20 individuals were seen in the trees and also on the river beaches.

Bornean Gibbon (*Hylobates muelleri*) E [DVFC]: The most commonly heard primate, the calls of this ape (hence tail-less) rang out around DVFC each morning from first light. Small numbers were seen on several occasions in the nearby trees.

Prevost's Squirrel (*Callosciurus prevostii*) [DVFC] *: The *pluto* subspecies seen on the Waterfall trail.

Plantain Squirrel (*Callosciurus notatus*) [DVFC]: Seen on the grid and nature trails.

Horse-tailed Squirrel (*Sundasciurus hippurus*) [DVFC]: The *pryeri* subspecies seen on the Coffin trail.

Jentink's Squirrel (*Sundasciurus jentinki*) E [MtK] *: A pair of these small squirrels was seen feeding in low trees on a trail.

Bornean Mountain Ground Squirrel (*Dremomys everetti*) E [MtK]: Seen a number of times, including a few tame animals near to the Timpohon gate that gave a comparative study with the Mountain Treeshrew.

Whitehead's Pigmy Squirrel (*Exilisciurus whiteheadi*) E [MtK] *: A small and amazingly cute squirrel with long white ear-tufts. Seen on two occasions apparently nibbling at the bark of its preferred trees species, leaving the tree covered in a series of red welts. One found, easy to photograph given its extreme focus on nibbling at the tree!

Plain Pigmy Squirrel (*Exilisciurus exilis*) E [DVFC] *: This tiny squirrel was seen several times on the trails and I was able to photograph one cooperative individual.

Thomas's Flying Squirrel (*Aeromys thomasi*) E [DVFC]: Two individuals seen in a tree and then flying during a night drive.

Common Palm Civet (*Paradoxurus hermaphroditus*) [DVFC]: One seen on the access road during a night drive.

Leopard Cat (*Felis bengalensis*) E [DVFC]: A small and beautifully spotted cat. Two of the endemic *borneensis* subspecies were seen separately on the access road during a night drive.

Asian (Borneo Pygmy) Elephant (*Elephas maximus*) E [DVFC] *: Slightly smaller than its cousins elsewhere in Asia, some consider the Borneo subspecies *borneensis*, that lives in the remaining lowland forests of Borneo, to be a separate species. One male was seen on the access road as we left Danum.

Bearded Pig (*Sus barbatus*) [DVFC]: Several family groups seen crossing the access road and on the banks of the Tambun River.

Bornean Yellow Muntjac (*Muntiacus atherodes*) E [DVFC]: One juvenile seen at dawn on the grid trails.

Sambar Deer (*Cervus unicolor*) [DVFC]: Small groups regularly seen at night on the football pitch near to the DVFC accommodation and, on one occasion, several individuals were also seen wandering near to the DVFC laboratories during the day time.

³ * = photo available from trip; E = Borneo endemic species; E = Borneo endemic subspecies