



Field Guides Tour Report

Private Borneo I 2016

Jul 1, 2016 to Jul 23, 2016

Rose Ann Rowlett & Richard Webster (with Hazwan & Paul)

For our tour description, itinerary, past triplists, dates, fees, and more, please VISIT OUR TOUR PAGE.

Darwin described Borneo as "one great, wild, untidy, luxuriant hothouse made by nature for herself." Indeed, we had a wonderful trip to this equatorial "land below the wind," the world's third-largest island. It would be hard NOT to have a great experience in one of the richest places on Earth.

Happily, everyone came to Sepilok three days early, allowing us time for some very rich lowland birding before the tour officially began. By the time Hazwan joined us, we had some great "goodies" already under our belts--from eye-to-eye Velvet-fronted Nuthatches, Copper-throated Sunbirds, and most of the lowland spiderhunters to a fabulous Black-crowned Pitta, a pair of White-fronted Falconets, and the world's largest flying squirrels sailing right overhead! We had seen our first flying lizards, an arboreal snake, and even a "flying" caterpillar!

For the next two weeks--from the primary dipterocarp forests of Sepilok, Gomantong, and Borneo Rainforest Lodge (BRL) and the floodplain forests of the Kinabatangan to the montane forests of Kinabalu--we would sample some of the richest and most bizarre

biota on Earth. Highlights were many, each day producing new birds, mammals, herps, invertebrates, and plants. In the list below I've tried to stoke our memories of most of the critters we encountered, but I must mention a few highlights here:

At Gomantong Caves, after seeing our first Orangutans and all the echo-locating swiftlets on their nests, we witnessed the exodus of thousands of bats as hungry raptors gathered to hunt them; the Bat Hawks had a good evening! Meanwhile, an extended family of Bushy-crested Hornbills flew in to roost shoulder-to-shoulder nearby.

The Kinabatangan Wildlife Sanctuary produced kingfishers and storks and then fish owls by night; hornbills and raptors and primates aplenty. Who could forget those big-bellied, big-nosed Proboscis Monkeys? Or the antics of the young Pig-tailed Macaques at play? Or their frightened expressions as they clung tightly to their mothers in crossing that rope "primate bridge"? Yes, the one near the mouth of the Tenangang, where we watched an Orangutan cross--for the first time in Hazwan's considerable experience! The lovely Menanggul produced another bird highlight of the trip: a family of bizarre Bornean Bristleheads that uttered their weird growls and whistles as they worked their way in above our boat; their monotypic family Pityriaseidae is the only bird family endemic to Borneo.

The exceptional service and hospitality we received at BRL, not to mention Paul's guidance, contributed to our falling in love with the hill forest of the Danum Valley. From Crested Firebacks and Whiskered Treeswifts to Chestnut-naped Forktails and Striped and Bornean wren-babblers; from a roosting male Colugo to the white, winged dipterocarp seeds floating above the canopy walkway, where we watched an Orangutan with a baby build its roosting platform and settle to sleep; from nocturnal encounters with flying treefrogs, fancy geckos, slug-eating snakes, swimming pythons, to sleeping lizards, kingfishers, and pittas, we saw an astounding array of life. The forest gives up its secrets slowly, but one morning on the Hornbill Trail seemed exceptional in the succession of secrets revealed: a Bornean Ground-Cuckoo scolding us at close range; a male Blue-headed Pitta frozen on its perch; a male Bornean Banded-Pitta hopping circles around us; and then a fabulous fruiting fig full of hornbills, barbets, and a Binturong. It doesn't get any better than that!

But then we headed for Kinabalu via Crocker Range National Park. That morning near the Tambunan Rafflesia Center offered a chunk of new birds rapid-fire, including one rarity, the Chestnut-tailed Jungle-Flycatcher, that turned out to be new for us all! And yet the rarity of the day--indeed of the trip--was Anne's discovery of that fabulous Rafflesia pricei flower, freshly opened right beside the road! It too was a lifer for all.



We share 96% of our genetic material with the Orangutan, the largest strictly tree-dwelling mammal. A young one stays with its mother for years, being carried continuously during travel for the first 3-4 years. Here a mother is hauling her young one to a higher level in the Kinabatangan forest. We saw more Orangutans on this tour than ever before--an astonishing 22! (photo by guide Richard Webster)

Kinabalu brought a cool, rejuvenating climate and a whole array of upper montane specialties. We'll never forget that family of Whitehead's Trogons foraging in the Silau-Silau forest, the female wrestling down a huge katydid. And what of that wonderfully responsive Collared Owllet that attracted so many scolding birds into view? Or that Whitehead's Spiderhunter that responded well despite the season? The greatest rarity here was that black-morph Oriental Honey-Buzzard or Kinabalu Honey-Buzzard, the documentation of which in 2013 is said to be "one of the most exciting discoveries in Borneo ornithology in the last hundred years" (Phillipps).

Finally, there was our last morning at Kinabalu when all of our remaining targets fell into place, from the pair of Everett's Thrushes at the road edge at dawn, to the Crimson-headed Partridges on Mempening, to the responsive Bornean Stubtail that interrupted our search for Fruit-hunters, which themselves then showed up! It was quite a finale to a fabulous trip.

It's been fun reliving the trip while processing photos and recordings and annotating the list. Hopefully, the comments below--and the media embedded in the online version--will enliven your memories, as well as identify a few of the "additional critters" we enjoyed in the field. For the online version, go to www.fieldguides.com/triplists/bor16p.html.

Throughout this triplist, I've used the following abbreviations:

RDC = Rainforest Discovery Center (at Sepilok)

BRL = Borneo Rainforest Lodge (in Danum Valley)

"Sundaland specialty" refers to a species whose range is generally limited to (and sometimes restricted within) the Thai-Malay Peninsula, Borneo, Sumatra, Java, and surrounding islands, all of which were connected during the last ice age. The eastern boundary of Sundaland is Wallace's Line, a deepwater trench between Borneo and Sulawesi and between Bali and Lombok, east of which is Wallacea/Australasia. Many of the birds of Borneo, marked with an S on the checklist, are Sundaland specialties, and many of these Sundaland birds have taxa which are endemic to Borneo, as noted in the Myers field guide. I have indicated some of those on the triplist with the trinomial, emphasizing the taxa for which there is a good possibility of elevation to species status in the near future (as is the current trend in thinking about polytypic species).

Taxonomy in the current triplist follows the Clements checklist with online updates, including the most recent version (2016-10, August 2016). To access or download the updated Clements checklist online, simply google "eBird-Clements checklist."

Conservation status is drawn from the publications of Birdlife International and the IUCN Red List. It's sobering to realize how many of the species we saw are considered Near Threatened, Vulnerable, or even Endangered. We'll hope that our visit will contribute a bit toward their preservation.

We thank our superb local guides (Hazwan & Paul), our captains, our boatmen, and the staffs of our wonderful lodgings throughout the tour, as well as our tour managers in Austin and KK. Special thanks to David & Suzanne for contributing some great photos for the online triplist; there were many more wonderful photos than we have room to include, but we'll make sure you receive a DVD of Richard's photos.

Finally, we had a terrific time with you guys! Thanks to Shelli and Anne for initiating the trip and to all of you for coming, and for your sense of wonder at discovery, your keen spotting and sharing, and for all the laughs and fun during our exploration of the astounding nature of Borneo.

--Rose Ann (& Richard)

KEYS FOR THIS LIST

One of the following keys may be shown in brackets for individual species as appropriate: * = heard only, I = introduced, E = endemic, N = nesting, a = austral migrant, b = boreal migrant

BIRDS

Anatidae (Ducks, Geese, and Waterfowl)

WANDERING WHISTLING-DUCK (*Dendrocygna arcuata*) – The only duck to be expected in July, it breeds from the Greater Sundas and the Philippines to Australia. We scoped several at a marshy lake near Tuaran on our final afternoon in the field.

Phasianidae (Pheasants, Grouse, and Allies)

RED-BREASTED PARTRIDGE (*Arborophila hyperythra*) – We heard these higher-elevation partridges on several days at Kinabalu, and we had repeated great views of a foraging pair we called into view along the Pandanus Trail. I've embedded below the recording I made of that pair duetting. [E]

CHESTNUT-NECKLACED PARTRIDGE (*Arborophila charltonii*) – We heard this lowland Sundaland species on 10 different days of our trip, but I think Roger was the only one who connected with it well--and that was when he was on the trail by himself.

GREAT ARGUS (*Argusianus argus*) – We heard distant birds calling along the Gomantong road and almost daily at BRL, but they were not at known courts and we never got close enough to see one (though Steve was tantalizingly close to one bird along the Hornbill Trail). A Sundaland specialty, this species is said to be inedible, but nonetheless trapped, exclusively for its feathers (see Phillipps & Phillipps).

CRIMSON-HEADED PARTRIDGE (*Haematortyx sanguiniceps*) – We heard the raucous duetting of various pairs at Kinabalu, usually in the distance. But on our final morning in the park, we struck gold! We all had fabulous looks at a very close bird (or two) along the Mempening Trail. It was a great start to a fabulous final morning at Kinabalu! [E]

CRESTED FIREBACK (BORNEAN) (*Lophura ignita nobilis*) – We had great studies of two groups of these magnificent pheasants on our first morning at BRL. This race, with the cinnamon-buff tail feathers, is endemic to Borneo and considered Near Threatened by the IUCN. The HANDBOOK OF BIRDS OF THE WORLD and the International Ornithological Congress split the Bornean birds from those of Sumatra and the Malay Peninsula.

Ciconiidae (Storks)

STORM'S STORK (*Ciconia stormi*) – Classified as Endangered (with a total population of 400-500 individuals) by the IUCN, this small stork is one of the specialties of the lower Kinabatangan, where a breeding population of 43 individuals was surveyed in 1999-2000. We were lucky to see one up the Kinabatangan on 9 July. With increased fragmentation of their habitat, the species has declined throughout its limited range, mostly in Sumatra and Borneo.

LESSER ADJUTANT (*Leptoptilos javanicus*) – We saw more than usual this trip, seeing small numbers daily along the Kinabatangan. The species is more common well downriver, closer to the coast, as well as in peninsular SE Asia and on the Indian subcontinent. It's closely related to Africa's Marabou--and almost as ugly up close!

Anhingidae (Anhingas)

ORIENTAL DARTER (*Anhinga melanogaster*) – Common along the Kinabatangan and its tributaries, with many seen drying their feathers on snags or soaring overhead with the storks.

Ardeidae (Herons, Egrets, and Bitterns)

CINNAMON BITTERN (*Ixobrychus cinnamomeus*) – RAR flushed a bird from the cattails at the Tuaran marsh our final afternoon afield, but I think Shelli was the only other person to see it well.

PURPLE HERON (*Ardea purpurea*) – We saw small numbers in the Kinabatangan area and at the Tuaran marsh.

GREAT EGRET (*Ardea alba*) – Fairly common and widespread.

INTERMEDIATE EGRET (*Mesophoyx intermedia*) – We had good looks at a bird at the oxbow lake in the Kinabatangan and then again near Tuaran.

LITTLE EGRET (*Egretta garzetta*) – Small numbers were widespread in the Kinabatangan and KK/Tuaran areas.

PACIFIC REEF-HERON (*Egretta sacra*) – This was the last new species we added to our Borneo triplist; it was seen from the table at our farewell dinner along the shore of the South China Sea in KK.

CATTLE EGRET (EASTERN) (*Bubulcus ibis coromandus*) – This fairly common non-breeding visitor occurs throughout the lowlands, and a few may be starting to breed in Borneo. We saw them along the runway at Lahad Datu and near KK. *B. I. coromandus* is sometimes considered a separate species.

STRIATED HERON (*Butorides striata*) – REW pointed out one bird near KK on our final afternoon.

BLACK-CROWNED NIGHT-HERON (*Nycticorax nycticorax*) – We had one bird by night in the Kinabatangan, and some of us saw them flying along the shore of the South China Sea during our farewell dinner in KK.

Accipitridae (Hawks, Eagles, and Kites)

ORIENTAL HONEY-BUZZARD (*Pernis ptilorhynchus*) – We saw one bird flying over the road at BRL, but our highlight with this species came in the highlands--at Kinabalu Park! There we studied a rare black-morph bird, which mimics the endemic Mountain Serpent-Eagle that is found only above 900m. There is good reason to suspect this "black morph" is actually a separate species, but the whole group needs work (see Phillipps & Phillipps, p. 28, where the 2013 documentation of this bird in Kinabalu Park is considered "one of the most exciting discoveries in Borneo ornithology in the last hundred years").

JERDON'S BAZA (*Aviceda jerdoni*) – We studied one individual of this Wallace's Hawk-Eagle look-alike, both perched and flying, near the mouth of the Tenangang River on an afternoon boat trip there.

MOUNTAIN SERPENT-EAGLE (*Spilornis kinabaluensis*) – We rushed out to the road from the Mempoening Trail when we heard the distinctive calling of this montane raptor, just in time to see it circle overhead and then disappear behind the trees. It replaces the next species in the mountains of Sabah. [E]

CRESTED SERPENT-EAGLE (*Spilornis cheela*) – The commonest forest-edge raptor in Sabah, this species was recorded--by sight or sound--on 8 different days, throughout the lowlands.

BAT HAWK (*Macheiramphus alcinus*) – After scoping a bird on a nest, we watched this big-eyed specialist diving through clouds of bats emerging from Gomantong Caves--and often coming up with dinner. Though small billed, they have enormous gapes, enabling them to swallow most of their prey whole on the wing. The species is widespread but local, occurring in Africa, Australasia, and SE Asia. The Borneo birds belong to the nominate race.

CHANGEABLE HAWK-EAGLE (*Nisaetus limnaeetus*) – We saw two whitish immature birds along the banks of the Kinabatangan on our trip downriver, and then we studied a perched dark morph near the mouth of the Tenangang in the late afternoon light on our final day based at Sukau.

BLYTH'S HAWK-EAGLE (*Nisaetus alboniger*) – Our first good view of this species was a scope view of a distant perched bird overlooking the forested slopes of the Crocker Range. We later saw soaring birds at Kinabalu.

WALLACE'S HAWK-EAGLE (*Nisaetus nanus*) – We saw our first ones along the RDC canopy walkway, where we speculated about their interactions with the flying squirrels. Being fairly common in the lowlands, they were seen repeatedly at Gomantong, in the Kinabatangan, and at BRL. Hazwan pointed out an adult on a nest right at Sukau Rainforest Lodge; it allowed nice scope views. [N]

RUFIOUS-BELLIED EAGLE (*Lophotriorchis kienerii*) – We had seen one flying over the RDC and scoped a distant bird at Gomantong, but the one that stands out is the one Shelli & Mary spotted circling over the vista point in Kinabalu Park, where it's quite uncommon. That one flew from some distance and landed in a tree over the road, where we had wonderful scope views that allowed us not only to ID it, but to enjoy it fully.

BLACK EAGLE (*Ictinaetus malaiensis*) – David spotted our first of these big raptors with the fingered primaries, flying high over the Gomantong parking lot. It was later seen a couple of times at BRL and then at Kinabalu Park.

CRESTED GOSHAWK (*Accipiter trivirgatus*) – This one was first seen at Sepilok Nature Resort and then along the Tenangang, where we saw it in its distinctive display flight.

BRAHMINY KITE (*Haliastur indus*) – Fairly common and widespread, especially in secondary habitats.

WHITE-BELLIED SEA-EAGLE (*Haliaeetus leucogaster*) – We saw these distinctively shaped raptors over the Sepilok Nature Resort and in the Kinabatangan.

LESSER FISH-EAGLE (*Ichthyophaga humilis*) – We had a great view of this species along the Tenangang the day after we saw the next species in the same area, making for a nice comparison. Lesser was seen again a couple of times along the Danum River at BRL.

GRAY-HEADED FISH-EAGLE (*Ichthyophaga ichthyaetus*) – An adult of this species, with the distinctive white tail with the black terminal band, was seen well perched and flying along the Tenangang.

Rallidae (Rails, Gallinules, and Coots)

BUFF-BANDED RAIL (*Gallirallus philippensis*) – We scoped this beauty in the flooded rice field near Tuaran and hardly recognized the illustration of it in the Phillipps & Phillipps guide; the Myers guide illustration was better. A common resident of the Philippines, New Guinea, and Australia, this species was first recorded in Sabah in 2007 (not far from where we saw it).

WHITE-BREASTED WATERHEN (*Amauornis phoenicurus*) – What a duet! Our first ones, in road-edge grasses at Sepilok, crept in very close. We later saw this fairly common species en route to Gomantong and along roadsides and marshes in the KK-Tambunan-Tuaran areas.

EURASIAN MOORHEN (*Gallinula chloropus*) – Seen our final afternoon in the field in the marshy area near Tuaran en route back to KK.

Scolopacidae (Sandpipers and Allies)

COMMON SANDPIPER (*Actitis hypoleucos*) – A flock of 7 birds was seen flying along the Kinabatangan on July 8. This was one of very few boreal migrants encountered on the trip. [b]

Columbidae (Pigeons and Doves)

ROCK PIGEON (*Columba livia*) – Lahad Datu [I]

SPOTTED DOVE (*Streptopelia chinensis*) – Common and widespread in non-forested areas.

PHILIPPINE CUCKOO-DOVE (*Macropygia tenuirostris*) – When we climbed to the vista point along the trail at Poring Hot Springs, we saw several Ruddy Cuckoo-Doves fly past. In the recently updated version of the Cornell-Clements checklist (August 2016), Ruddy Cuckoo-Dove was split into three species, with the race borneensis (of N Borneo) being reassigned to *M. tenuirostris*, Philippine Cuckoo-Dove.

LITTLE CUCKOO-DOVE (*Macropygia ruficeps*) – Fairly common, especially in the montane forest, and we had good looks, starting near the Tambunan Rafflesia Center and then at Kinabalu Park.

EMERALD DOVE (COMMON) (*Chalcophaps indica indica*) – The updated Cornell-Clements Checklist splits Emerald Dove into two species, Pacific Emerald Dove of Australia and New Guinea; and Asian Emerald Dove, which is the one we saw and heard in Borneo. It was heard at the RDC and along the Gomantong road, and some folks saw a pair fly across the Tenangang. Anne saw one at BRL, and another fly-by was seen at Kinabalu Park.

ZEBRA DOVE (*Geopelia striata*) – Considered to have originated in Borneo from released cage birds in Kalimantan and KK, this species is now common and widespread in towns and disturbed habitats throughout Borneo. [II]

LITTLE GREEN-PIGEON (*Treron olax*) – We had good looks at these colorful green-pigeons first from the breakfast area at Sepilok Nature Resort; next along the Menanggul, where a pair had a nest; and finally along the Tenangang and Kinabatangan itself. [N]

PINK-NECKED PIGEON (*Treron vernans*) – Seen first at the Sepilok Nature Resort pre-tour, then again on our final afternoon of birding near Tuaran/KK.

CINNAMON-HEADED PIGEON (*Treron fulvicollis*) – Two birds joined the other green-pigeons atop a tree visible from our breakfast area at Sepilok. They would be the only ones we encountered.

THICK-BILLED PIGEON (*Treron curvirostra*) – We had exceptionally good looks at this beauty, first at the RDC, then at an active nest along the Menanggul, and finally in the fruiting fig at BRL. [N]

JAMBU FRUIT-DOVE (*Ptilinopus jambu*) – This Sundaland specialty is a scarce bird in Borneo. We were lucky to have seen one female flying across the Gomantong parking lot. It was only RAR's third sighting of the species in Borneo.

GREEN IMPERIAL-PIGEON (*Ducula aenea*) – This was the common big pigeon of the lowlands, and we had many good views, from Sepilok through the Kinabatangan to BRL.

MOUNTAIN IMPERIAL-PIGEON (*Ducula badia*) – We had exceptionally good looks at this big pigeon in Kinabalu Park--from the first one that responded to playback by flying in and singing as we scoped it; to those we watched right off the breakfast area at the Balsam Cafe.

Cuculidae (Cuckoos)

LARGE HAWK-CUCKOO (DARK) (*Hierococcyx sparveroides bocki*) – The latest update of the Cornell-Clements Checklist elevates *bocki*, the bird that breeds in the mountains of the Malay Peninsula, Sumatra, and Borneo--and was singing near the Tambunan Rafflesia Center--to full-species status, calling it Dark Hawk-Cuckoo. *H. sparveroides* retains the name Large Hawk-Cuckoo, which is a boreal migrant known to winter in Borneo. [*]

MOUSTACHED HAWK-CUCKOO (*Hierococcyx vagans*) – This species was heard singing along the Menanggul, along the Gomantong road, and at BRL, but it was not responsive to playback. [*]

INDIAN CUCKOO (*Cuculus micropterus*) – Though we heard this species from the RDC, Gomantong, and the Kinabatangan, we were never close enough to call it in. [*]

SUNDA CUCKOO (*Cuculus lepidus*) – Another heard-only cuckoo, this one at Kinabalu Park. Cuckoos were not calling as much as usual, and they were less responsive than usual.

PLAINTIVE CUCKOO (*Cacomantis merulinus*) – We even had trouble getting super looks at this common and widespread species, which WAS singing regularly throughout the lowlands. We did view it from the Trogon Tower at the RDC, and we heard it each morning pre-dawn at the Sepilok Nature Resort.

VIOLET CUCKOO (*Chrysococcyx xanthorhynchus*) – Fairly common by voice, this beauty did respond for us when we called it in below us from the Trogon Tower at RDC.

SQUARE-TAILED DRONGO-CUCKOO (*Surniculus lugubris*) – One of a four-way split of Asian Drongo-Cuckoo, this species is common throughout Borneo's lowland forests. But it wasn't singing much during our visit; we heard it only at BRL. Fortunately, we lucked into a couple of birds sitting up over the Menanggul and had good views.

BLACK-BELLIED MALKOHA (*Phaenicophaeus diardi*) – A few were seen overhead at BRL.

RAFFLES'S MALKOHA (*Phaenicophaeus chlorophaeus*) – Reminiscent of the Squirrel Cuckoo of the neotropics, this handsome Sundaland specialty was seen well at Sepilok, Gomantong, in the Kinabatangan, and at BRL.

RED-BILLED MALKOHA (*Phaenicophaeus javanicus*) – Another Sundaland specialty, this one was seen best from the RDC walkway--after some patient watching.

CHESTNUT-BREASTED MALKOHA (*Phaenicophaeus curvirostris*) – Fairly common in the lowlands, this striking Sundaland specialty was seen well in the Kinabatangan, at Gomantong, and at BRL.

BORNEAN GROUND-CUCKOO (*Carpococcyx radiceus*) – Paul took us to where a pair had been calling along the Hornbill Trail, and sure enough we heard them our first trip there. On our second visit to the Hornbill Trail, a responsive bird got closer and closer--and then went quiet. As we turned our attention to the nearby calling Bornean Banded-Pitta, suddenly one of the ground-cuckoos began growling from a low branch at very close

range! It was a terrific view for those who could see it, but, sadly, it didn't stay quite long enough for Paul to help everyone find it. Still, it was quite an experience! [E]

SHORT-TOED COUCAL (*Centropus rectunguis*) – Heard in the distance at BRL. [*]

GREATER COUCAL (*Centropus sinensis*) – Heard almost daily in the lowlands, this big ground-dwelling cuckoo was seen first by David and Suzanne at Sepilok, but later by all along the Tenang River.

Tytonidae (Barn-Owls)

ORIENTAL BAY-OWL (*Phodilus badius*) – A haunting call, but no response along the Menanggul. [*]

Strigidae (Owls)

MOUNTAIN SCOPS-OWL (*Otus spilocephalus*) – Heard briefly from our lodge in Kinabalu Park. [*]

SUNDA SCOPS-OWL (*Otus lempiji*) – Heard once or twice on the grounds of the Sepilok Nature Resort. [*]

BARRED EAGLE-OWL (*Bubo sumatranus*) – Heard in the distance from the BRL Nature Trail during one of our night walks. [*]

BUFFY FISH-OWL (*Ketupa ketupa*) – This yellow-eyed fisherman was certainly the nocturnal owl of the trip! We saw 3 birds each night we birded along the Menanggul and another at BRL (sitting on a goal post!).

COLLARED OWLET (*Glaucidium brodiei borneense*) – But this little diurnal owl, rarely seen at Kinabalu, was THE OWL of the trip! With a call quite similar to that of the birds in Sumatra--but very different from that of other Asian populations--it could easily represent a distinct species. We heard a bird calling spontaneously and called in a pair for some dynamite scope views of a bird that was easily spotted thanks to all the mobbing small birds.

BROWN WOOD-OWL (*Strix leptogrammica*) – Very quiet now; we heard only one bird--from the boat one night along the Menanggul. [*]

BROWN BOOBOOK (*Ninox scutulata borneensis*) – Heard--and seen by some--on the grounds of our lodgings at Sepilok.

Apodidae (Swifts)

SILVER-RUMPED NEEDLETAIL (*Rhaphidura leucopygialis*) – Seen below us from the RDC walkway, then drinking on the wing at the Sepilok NR lake, and later at BRL.

GLOSSY SWIFTLET (*Collocalia esculenta*) – Seen throughout the trip, this commonest swiftlet was nesting under the eaves of various structures.

Unlike the echo-locating swiftlets of the genus *Aerodramus*, this species needs some light for nesting, thus building under eaves or near the mouth of caves. The race that occurs in Borneo, *cyanoptila*, is said to occur on the Malay Peninsula, Sumatra, and throughout "lowland Borneo," but we know it nests to 1500m at the Kinabalu Park HQ. [N]

BORNEAN SWIFTLET (*Collocalia dodgei*) – Maybe! The birds we saw nesting were at 1700m, which is 200m higher than where we know Glossy Swiftlets nest. But 200m is not that much; the green vs. blue gloss is not reliable; and to our knowledge no one has trapped the birds we saw to determine whether their hind toes are feathered or not--which is the only sure way of distinguishing the two. We did see a few swiftlets foraging at 1800m at the Timpohon Gate; these are likely Bornean. [EN]

MOSSY-NEST SWIFTLET (*Aerodramus salangana*) – One of the three similar, echo-locating swiftlets that nest inside the Gomantong Caves; they're so similar, in fact, that they are not reliably separated unless seen on their distinctive nests. This species builds a cup nest of sticks glued together with saliva and covered with moss, often placed on a small ledge, sometimes at low elevation. Their nests contain too much foreign material to be edible and hence are not harvested. We saw various birds sitting on their nests when we toured the Black-nest Cave at Gomantong. No telling how many we saw flying about! [N]

BLACK-NEST SWIFTLET (*Aerodramus maximus*) – The Black-nest Cave at Gomantong was named for this species, as it is generally the most abundant nester. Their nests, harvested there three times a year, are shallow cups of their own dark feathers glued with their own saliva. Their nests, blackish in appearance, were clustered high on the ceiling of the cave, where birds were sitting incubating. Teams of workers clean these nests up for the market, and we saw their nests for sale in the KK airport. [N]

WHITE-NEST SWIFTLET (*Aerodramus fuciphagus*) – A.k.a. Edible-nest Swiftlet. The beautiful little white nests of this species, composed almost entirely of the birds' saliva, are the most distinctive in the cave. We saw birds sitting on their pure-white nests in the Black-nest Cave. These are the most highly prized for the Chinese delicacy, bird's-nest soup, as illustrated by the prices asked for the packages of 4-6 nests that we examined in the KK international airport: 600RM, or about \$170 U.S.! Despite the nest harvesting--once or twice just after they're built (when the birds will surely re-nest), and then after the nestlings have fledged--the Gomantong Caves are said to have supported a healthy population of swiftlets for centuries, traced to the times of the Chinese Emperor. Today the caves are administered by Sabah's Wildlife Department, who licenses contractors who hire the locals to harvest the nests by hand, using rattan ladders, ropes, and poles, as well as great skill and caution. But, according to Phillipps & Phillipps, the populations are declining severely, especially in the caves less well managed--where nests are harvested up to 5 times a year and eggs are abandoned on the floor of the caves. Some research is desperately needed to learn how to control these harvests. [N]

HOUSE SWIFT (*Apus nipalensis*) – This one was seen by most folks at our gas stop in Ranau. The combo of a white rump and black tail is distinctive; its white throat is generally harder to see.

Hemiprocnidae (Treeswifts)

GRAY-RUMPED TREESWIFT (*Hemiprogne longipennis*) – Seen well drinking from the lake at our Sepilok Nature Resort and from the RDC canopy towers.

WHISKERED TREESWIFT (*Hemiprogne comata*) – We enjoyed this beauty especially along the old logging road from Lahad Datu to BRL and right off our breakfast table at BRL.

Trogonidae (Trogons)

RED-NAPED TROGON (*Harpactes kasumba*) – After hearing it from the RDC canopy walkway, we saw a striking male along the Kingfisher Trail and, later, a female at BRL. The species, restricted to Sundaland, is considered Near Threatened by the IUCN.

DIARD'S TROGON (*Harpactes diardii*) – Another handsome Sundaland specialty; we saw 2 males, including a young one, along the RDC trails and then heard them widely in the lowlands of the Kinabatangan, Gomantong, and BRL. The nominate race *diardii* is endemic to Borneo.

WHITEHEAD'S TROGON (*Harpactes whiteheadi*) – Well, it wasn't quite in time for Shelli's birthday, but it was one of the highlights of the whole trip: watching that family of stunning Whitehead's Trogons foraging along the upper Silau-Silau Trail. We later saw a lovely male--possibly the same one?--along the upper Pandanus Trail and then the same family group yet again in the same area. Among the most beautiful of the Bornean endemics, the Whitehead's Trogon is always among the "most-wanted" at Kinabalu. Though much of its montane habitat is protected, it is considered Near Threatened by the IUCN, with a slowly decreasing population. [E]

SCARLET-RUMPED TROGON (*Harpactes duvaucelii*) – Like a miniature version of the Red-naped Trogon, this Sundaland specialty was seen first from the boat along the Menanggul (a pair), and then at BRL.

Bucerotidae (Hornbills)

WHITE-CROWNED HORNBILL (*Berenicornis comatus*) – Normally the scarcest of the hornbills in Borneo, this fabulous Sundaland specialty was seen beautifully along the Tenangang, where we followed a vocal pair along the edge of the river. With its wonderful laughing call and its bushy crest, this species was one of our favorites. It's considered Near Threatened by the IUCN.

HELMETED HORNBILL (*Buceros vigil*) – At BRL we were extremely lucky to have a ripe fruiting fig in good view along the Hornbill Trail; it was attracting lots of green-pigeons, barbets, and hornbills. It allowed us fabulous studies of a pair of Helmeted Hornbills, surely the most bizarre of the hornbills, both for their looks and their maniacal calls! They have the largest territories of any hornbill, their diet consisting almost entirely of oily figs. Another Sundaland specialty, Helmeted Hornbill is now considered Critically Endangered on the IUCN Red List, owing to the combination of habitat loss and severe hunting pressure resulting from the high value placed on its ivory casque in illegal trade.

RHINOCEROS HORNBILL (*Buceros rhinoceros*) – Considered Near Threatened, this gruff-voiced Sundaland specialty may be the fairest of all! We saw them throughout the forested lowlands, from pre-tour on the grounds of our lodging at Sepilok right through BRL. Pairs of adults are generally territorial and depend on figs for about 50% of their diet, hunting insects and small animals when figs are scarce. Listen to the embedded recording I made at our "hot" fruiting fig at BRL for both its gruff calls and the incredible sounds produced by its wings in flight.

BUSHY-CRESTED HORNBILL (*Anorrhinus galeritus*) – Another cooperative breeder, this species occurs in extended family parties that feed and roost together, often shoulder-to-shoulder, as we witnessed at Gomantong. Unlike the White-crowned Hornbill, this species prefers oily fruits and hence maintains a somewhat larger territory. We saw them (and heard their raucous calls!) throughout the lowlands, and it was the commonest hornbill at BRL, where we watched one group drying their wings after the rain.

BLACK HORNBILL (*Anthracoceros malayanus*) – Considered Near Threatened, this noisy Sundaland specialty with the raspy calls was seen first at Sepilok and then throughout the lowlands, where we also saw a number of male variants (with the white brow). Small figs comprise some 40% of their diet, and they maintain fairly small territories, relying on insects and other small animals when figs are scarce.

ORIENTAL PIED-HORNBILL (*Anthracoceros albirostris*) – First seen right at our lodgings at Sepilok, this widespread species was the commonest hornbill along the rivers in the Kinabatangan. It tolerates degraded or patchy forest habitat and is fairly common in secondary forests, especially near the coast. But it was absent from the primary forest at BRL.

WREATHED HORNBILL (*Rhyticeros undulatus*) – Preferring large, oily fruits, both this species and the Wrinkled Hornbill are non-territorial, their flocks traveling long distances in search of the right figs. We were lucky this wide-ranging species had found the big, rich figs along the Hornbill Trail, where we had such great scope views of them! I've embedded the recording I made at our fruiting fig of this species calling and flying.

WRINKLED HORNBILL (*Rhabdotornhinus corrugatus*) – We had good views of this handsome, Near Threatened, Sundaland specialty in lovely, late-afternoon light along the Kinabatangan, where a party of 4 birds were foraging. Then others were seen flying across the river, and a few were seen briefly at BRL (where they are less common). Like the Wreathed, this species is non-territorial, wandering widely to exploit the scattered, oily fruits it prefers.

Alcedinidae (Kingfishers)

BLUE-EARED KINGFISHER (*Alcedo meninting*) – Seen well repeatedly at Sepilok and in the Kinabatangan; perhaps the most memorable one on this trip was the bird that slept night after night on a branch right beside the bridge at the Sepilok Nature Resort.

RUFOUS-BACKED DWARF-KINGFISHER (*Ceyx rufidorsa*) – We saw this little forest kingfisher sleeping too--on a couple of night walks along the BRL Nature Trail. Our first one, equally memorable, was perched along the Kingfisher Trail at the RDC; and those scope views of the bird along the Gomantong road were exceptional. What a beauty!

BANDED KINGFISHER (*Lacedo pulchella melanops*) – This species is entirely insectivorous, foraging in the understory of primary forest. We had great views of a stunning male, raising and lowering its crest, along the Gomantong road. The Bornean race melanops is elevated by some to a full species, *L. melanops*, and called the Bornean Banded Kingfisher. As indicated by its name, the male has a black (instead of rufous) face.

STORK-BILLED KINGFISHER (*Pelargopsis capensis*) – This big beauty is especially common in the Kinabatangan, where we had repeated great looks.

RUDDY KINGFISHER (*Halcyon coromanda*) – A much scarcer bird, this one was calling spontaneously along the Menanggul, and we had good looks at it perched and flying.

COLLARED KINGFISHER (*Todiramphus chloris*) – This widespread kingfisher of edge and open country was seen well along the oil-palm plantations en route to Gomantong and near Tuaran.

RUFOUS-COLLARED KINGFISHER (*Actenoides concretus*) – A calling bird responded along the Pitta Trail at the RDC, landing in good view for part of the group; unfortunately, it moved before everyone got on it.

Meropidae (Bee-eaters)

RED-BEARDED BEE-EATER (*Nyctornis amictus*) – One of only two species in the basal genus *Nyctornis*, and the only one in Borneo. It differs from all the Merops bee-eaters in its stockier build, long, loose throat feathers, and square-tipped tail that is mainly yellow below. This species often hawks carpenter bees, wasps, and cicadas from a perch in the canopy or subcanopy. We had great scope views of this beauty along the RDC walkway and heard another at BRL.

BLUE-THROATED BEE-EATER (*Merops viridis*) – More common than the last species, these beauties were seen in all lowland localities. As is typical of the large genus, they have a slighter build, tail streamers as adults, and are agile in pursuit of small, fast-flying insects.

Coraciidae (Rollers)

DOLLARBIRD (*Eurystomus orientalis*) – Perched atop sentinels from the RDC forest and throughout the Kinabatangan.

Megalaimidae (Asian Barbets)

BROWN BARBET (*Calorhamphus fuliginosus*) – This anomalous, dull-colored barbet (with red legs and feet) was split from the birds of peninsular Myanmar, Thailand, Malaysia & Sumatra (those now called Sooty Barbet, *C. hayii*). Based in part on their unique palate structure--which is responsible for their aberrant, high-pitched voice--the two are placed into a separate subfamily of barbets. We saw the race *tertius* on multiple occasions, first pre-tour on the grounds of the Sepilok Nature Resort, then from the RDC canopy, then multiple times in the Kinabatangan and at BRL. [E]

BLUE-EARED BARBET (*Psilopogon duvaucelii duvaucelii*) – Its voice a common sound throughout the lowlands, this little beauty was seen nicely early on--from the Bristlehead Tower at the RDC--and then in the Kinabatangan and at BRL.

BORNEAN BARBET (*Psilopogon eximius*) – We were lucky to have seen this lower-montane endemic, foraging in fruiting trees near the Tambunan Rafflesia Center, as they were silent during our visit. [E]

RED-THROATED BARBET (*Psilopogon mystacophanos*) – We tracked down a persistently singing bird along the Menanggul for some good looks from the boat at this big-billed Sundaland specialty. Otherwise, they were mostly heard only.

GOLDEN-NAPED BARBET (*Psilopogon pulcherrimus*) – We had several fabulous views of this montane endemic at Kinabalu, from that first bird scoped from our lodgings, to a bird feeding in a fruiting tree, to birds seen right at the road edge. Given that it was an El Nino year and drier than usual at Kinabalu, this barbet was surprisingly vocal during our visit. [E]

YELLOW-CROWNED BARBET (*Psilopogon henricii*) – Heard at BRL, but they didn't respond. [*]

MOUNTAIN BARBET (*Psilopogon monticola*) – We had nice scope views of several foraging individuals of this lower-montane endemic along the road above Masakob Waterfall. We heard a few birds calling there and later on the lower slopes at Kinabalu; this was the one that stops to take a breath after delivering a long series of notes. [E]

GOLD-FACED BARBET (*Psilopogon chrysopsis*) – Heard regularly at BRL, but ultimately seen well in our magnet fruiting fig along the Hornbill Trail. It was recently split from Gold-whiskered Barbet of mainland se Asia and Sumatra. [E]

Picidae (Woodpeckers)

RUFOUS PICULET (*Sasia abnormis*) – After a brief encounter by some along the Gomantong road, we all had good scope views of a preening bird at BRL. Then David saw a pair nicely at Poring Hot Springs.

GRAY-CAPPED WOODPECKER (*Dendrocopos canicapillus*) – We saw a male along the Tenangang and then singles in the crowns of trees on two days at BRL

WHITE-BELLIED WOODPECKER (*Dryocopus javensis*) – We had great views of a female (which lacks the red whisker) working on a dead tree snag along the Menanggul and then a second encounter along the Tenangang.

BANDED WOODPECKER (*Picus miniaceus*) – We saw only one bird--in the canopy of tall secondary forest at the RDC.

CRIMSON-WINGED WOODPECKER (*Picus puniceus*) – Our only encounter this trip was a scope view of a distant bird near the Tambunan Rafflesia Center.

CHECKER-THROATED WOODPECKER (*Picus mentalis*) – Our first encounter was with a bird in a small mixed flock along the trail behind our lodgings at Sepilok. Then we had multiple views of birds with mixed flocks at Kinabalu Park.

RUFOUS WOODPECKER (*Micropternus brachyurus*) – Heard in the distance at the RDC. [*]

BUFF-RUMPED WOODPECKER (*Meiglyptes tristis*) – We watched a family of 3 birds at the edge of the forest near the Birder's Rest at the RDC. They were quite responsive and seen repeatedly. We later encountered singles at Sukau, Gomantong, and BRL. This one is restricted to Sundaland.

BUFF-NECKED WOODPECKER (*Meiglyptes tukki*) – There was a Buff-necked Woodpecker in the same area as our first family group of Buff-rumped's. Singles were later seen near the parking lot at Gomantong and from the canopy walkway at BRL. Also a Sundaland specialty, this one is considered Near Threatened.

MAROON WOODPECKER (*Blythipicus rubiginosus*) – We saw a family of three along the Menanggul, heard them elsewhere in the lowlands, and then saw them with mixed flocks along the road at Kinabalu Park. Another Sundaland specialty.

ORANGE-BACKED WOODPECKER (*Reinwardtipicus validus*) – A pair flying past above the Hill Lodge was our only sighting this trip, and not everyone saw them. Another Sundaland bird.

GRAY-AND-BUFF WOODPECKER (*Hemicircus concretus*) – This tiny woodpecker with the big crest is yet another woodpecker restricted to Sundaland. We had several encounters with it, all in the canopy--first with a pair from the RDC Trogon Tower; then at Gomantong, and finally from the BRL canopy walkway. It's one of RAR's favorites.

GREAT SLATY WOODPECKER (*Mulleripicus pulverulentus*) – We had two "brushes" with this big woodpecker, first as it flew past calling in the distance from the RDC canopy; and then briefly again along the Menanggul.

Falconidae (Falcons and Caracaras)

WHITE-FRONTED FALCONET (*Microhierax latifrons*) – It was a bit of a surprise to have had lovely views of a pair of this tiny falcons--including eating prey--right behind our lodgings at Sepilok Nature Resort on our first morning of birding. It's considered Near Threatened with a decreasing population. We had one more distant bird at the oxbow lake in the Kinabatangan. [E]

PEREGRINE FALCON (*Falco peregrinus*) – One chasing bats at Gomantong. [b]

Psittaculidae (Old World Parrots)

BLUE-RUMPED PARROT (*Psittinus cyanurus*) – Heard briefly at BRL. [*]

LONG-TAILED PARAKEET (*Psittacula longicauda*) – This Sundaland specialty was seen well, if mostly in flight, primarily along the Menanggul.

BLUE-CROWNED HANGING-PARROT (*Loriculus galgulus*) – We heard this Sundaland specialty almost daily in the lowlands, but most of our sightings were fly-by's.

Calyptomenidae (African and Green Broadbills)

WHITEHEAD'S BROADBILL (*Calyptomena whiteheadi*) – This is a BIG, fancy montane endemic! Although it wasn't vocalizing much during our time at Kinabalu, we were lucky to encounter one responsive bird with a mixed flock along the road on our first full day afield in the park. It was the first of the "Whitehead's trio" of Kinabalu's endemic birds that we encountered--and a birthday gift to Shelli! Note that this species, along with Green, Hose's, & the African broadbills, is now placed into a family distinct from that of the other Asian broadbills. [E]

Eurylaimidae (Asian and Grauer's Broadbills)

BLACK-AND-RED BROADBILL (*Cymbirhynchus macrorhynchos*) – This primarily Sundaland broadbill, with its jetsam-like nests hanging over the water, was seen first at Sepilok and then repeatedly in the Kinabatangan. We even had views of its fancy two-toned bill sticking out of an active nest. [N]

LONG-TAILED BROADBILL (*Psarismomus dalhousiae*) – We heard it when we first emerged from the bus at Masakob Waterfall, but we didn't manage to lure one into view. [*]

BANDED BROADBILL (*Eurylaimus javanicus*) – We heard this species several times at BRL, but I think David Smith was the only one to have seen it--and he saw it well! Another striking specialty of SE Asia and Sundaland, the race endemic to Borneo.

BLACK-AND-YELLOW BROADBILL (*Eurylaimus ochromalus*) – Commonly heard and seen throughout the lowlands, this lovely broadbill--with the pink breast so rare among birds--is also restricted to Sundaland. One of the behavioral highlights of the trip was watching a bird at the RDC

consuming a big, fuzzy "flying" caterpillar.

DUSKY BROADBILL (*Corydon sumatranus*) – This species has the broadest bill of them all! In fact, it has what is proportionately the broadest bill of all the passerines. We called in 3 responsive birds along the Menanggul. Dusky Broadbill is restricted to SE Asia, Sumatra, and Borneo.

Pittidae (Pittas)

BLACK-CROWNED PITTA (*Erythropitta ussheri*) – An early highlight of the trip was watching this striking endemic singing right in front of us (and through the scope!) at Sepilok Nature Resort. We heard it again at the RDC and at BRL. [E]

BLUE-BANDED PITTA (*Erythropitta arquata*) – This species with the elusive whistle refused to show at BRL. [E*]

GIANT PITTA (*Hydromis caeruleus*) – A spontaneously singing bird was seen very briefly by some, but it remained a heard-only to most, along the road at BRL.

BORNEAN BANDED-PITTA (*Hydromis schwaneri*) – Another highlight was watching this scarce and beautiful endemic circling around us along the Hornbill Trail at BRL. Formerly lumped with the "Banded Pitta" of Malaya, the Bornean bird has become yet another endemic. [E]

BLUE-HEADED PITTA (*Hydromis baudi*) – Amazingly, thanks to Paul, we had frame-filling scope views of this beauty in the same spot as the Bornean Banded-Pitta! As if that weren't enough, Paul spotlighted a sleeping female on a night drive! Not easily recognized, it was a rust-and-brown ball of fluff with a short blue tail sticking out. [E]

HOODED PITTA (*Pitta sordida*) – We heard this one singing as we motored quietly up a side channel of the Kinabatangan to the oxbow lake; it turned out to be a responsive one, affording us good looks in the understory of the floodplain forest. The species is widespread, occurring from India to New Guinea, but the race that breeds in Borneo has an entirely black hood (with no brown cap).

Acanthizidae (Thornbills and Allies)

GOLDEN-BELLIED GERYGONE (*Gerygone sulphurea*) – BRL [*]

Vangidae (Vangas, Helmetshrikes, and Allies)

LARGE WOODSHRIKE (*Tephrodornis virgatus*) – REW saw one at Gomantong, but it was heard-only for the rest of us. [*]

BAR-WINGED FLYCATCHER-SHRIKE (*Hemipus picatus*)

BLACK-WINGED FLYCATCHER-SHRIKE (*Hemipus hirundinaceus*) – This Sundaland specialty is fairly common on our route. We saw it well at Sepilok, the RDC, Gomantong, and BRL.

RUFOUS-WINGED PHILENTOMA (*Philentoma pyrhoptera*) – We had heard it at the RDC, but we had a good view of an immature bird along the BRL entrance road. "Philentoma" names this genus as a "lover of insects," "entoma" sharing the same root as entomology.

MAROON-BREASTED PHILENTOMA (*Philentoma velata*) – Another Sundaland specialty, this one is a fancier cousin of the last species. We saw it eye-to-eye from the BRL canopy walkway.

Artamidae (Woodswallows)

WHITE-BREASTED WOODSWALLOW (*Artamus leucorhynchus*) – A common and widespread resident of open country, it is the only woodswallow in Borneo. We encountered it most in the Kinabatangan and had various good views.

Pityriaseidae (Bristlehead)

BORNEAN BRISTLEHEAD (*Pityriasis gymnocephala*) – One of the most distinctive birds of Borneo, it is now placed in its own family, the only bird family endemic to Borneo. Its generic name derives from the Greek word for "suffering from dandruff," its specific moniker meaning "bald-headed." The bright yellow-orange "bristles" on its crown are actually a dense carpet of filaments indicative of the most basic developmental level of feather growth. Its closest relatives are thought to be the bushshrikes and vangas. Fascinating and still poorly understood, this weirdly wonderful bird is considered Near Threatened and is easily missed. On this tour we had no luck with it at Sepilok, but we encountered a family group of 5 birds along the Menanggul, where they responded well to playback, giving us some great views. [E]

Aegithinidae (Ioras)

COMMON IORA (*Aegithina tiphia*) – We had some nice views of singing birds on the grounds of Sepilok Nature Resort.

GREEN IORA (*Aegithina viridissima*) – Considered Near Threatened owing to habitat destruction, this Sundaland canopy specialist was seen well from the RDC & BRL towers and walkways. On our first encounters--at the RDC Bristlehead Tower--we got to see excited males displaying their big, fluffy white lower-back-and-rump patch, which is normally hidden.

Campephagidae (Cuckooshrikes)

FIERY MINIVET (*Pericrocotus igneus*) – Another Near Threatened Sundaland specialty, this small beauty was first seen from the RDC canopy walkway. Its generic name, "very saffron colored," refers to the female; its specific epithet, "fiery," refers to the male. Few scientific names of dimorphic species refer to both sexes. We saw both well.

GRAY-CHINNED MINIVET (*Pericrocotus solaris*) – The highland minivet, it was seen with foraging flocks near the Tambunan Rafflesia Center and in Kinabalu Park, usually traveling in pairs or family groups.

PIED TRILLER (*Lalage nigra*) – This lowland species of edge and disturbed habitats was seen first at our gas stop in Ranau and then on our final afternoon afield near Tuaran.

LESSER CUCKOOSHRIKE (*Lalage fimbriata schierbrandi*) – This Sundaland specialty was best seen from the boat, sitting up along the Menanggul.

Pachycephalidae (Whistlers and Allies)

BORNEAN WHISTLER (*Pachycephala hypoxantha*) – This montane endemic, with the strong song, was seen repeatedly with the mixed flocks at Kinabalu Park, where it's fairly common. [E]

Laniidae (Shrikes)

LONG-TAILED SHRIKE (*Lanius schach*) – This race, a Sundaland inhabitant of open country, has been expanding its range in Borneo; though this taxon is a common resident of se. Borneo, it was not known to breed in Sabah until recently. We saw it along the utility wires through the oil palms en route to Gomantong.

Vireonidae (Vireos, Shrike-Babblers, and Erpornis)

BLYTH'S SHRIKE-BABBLER (BLYTH'S) (*Pteruthius aeralatus robinsoni*) – Formerly classified as subspecies of White-browed Shrike-Babbler, the aeralatus group (including robinsoni, of the highlands of Borneo) has been elevated to species status, as Blyth's Shrike-Babbler. Recent genetic studies show that the shrike-babblers are more closely related to vireos than to the babblers (Timaliidae) and that the whole group needed

reassessment; hence the changes. The aeralatus group occurs from N Pakistan to S China and through Sundaland. We saw both male and female well on our first morning at Kinabalu Park.

Oriolidae (Old World Orioles)

DARK-THROATED ORIOLE (*Oriolus xanthonotus*) – Another Sundaland specialty that's considered Near Threatened, this handsome oriole was heard more often than seen. But some of us saw a male from the Gomantong parking lot, and everyone saw various females at BRL

BLACK-AND-CRIMSON ORIOLE (*Oriolus cruentus*) – Even more range-restricted than the previous species, this chunky highland oriole is found only on the Malay Peninsula, Sumatra, and Borneo. We all had great looks at it near the Tambunan Rafflesia Center.

Dicruridae (Drongos)

ASHY DRONGO (BORNEAN) (*Dicrurus leucophaeus stigmatops*) – A handsome, gray drongo, this endemic taxon, stigmatops, may well be split. It was common in the highlands, from the Rafflesia Center to the more open areas at and near Kinabalu.

HAIR-CRESTED DRONGO (*Dicrurus hottentottus borneensis*) – We had wonderful studies of this curly-tailed drongo right outside our Hill Lodge on our first morning at Kinabalu. This is another taxon that has numerous races, this one occurring in Borneo and adjacent islands.

GREATER RACKET-TAILED DRONGO (*Dicrurus paradiseus brachyphorus*) – Perhaps the fanciest of the drongos, this one was seen well repeatedly in the lowlands, beginning at our hotel in Sepilok and then at the the RDC, Sukau, Gomantong, and BRL.

Rhipiduridae (Fantails)

SPOTTED FANTAIL (*Rhipidura perlata*) – We had nice views of this spiffy Sundaland specialty inside the forest along the Pitta Trail at BRL.

MALAYSIAN PIED-FANTAIL (*Rhipidura javanica*) – The common and confiding fantail of the lowlands, this cutie was enjoyed every day, from Sepilok through BRL. Perhaps most memorable was the bird on its small cup nest in flood debris a few feet above the water at the mouth of the oxbow lake off the Kinabatangan R. [N]

WHITE-THROATED FANTAIL (*Rhipidura albicollis*) – The highland fantail; we saw it first below the Tambunan Rafflesia Center and then daily at Kinabalu.

Monarchidae (Monarch Flycatchers)

BLACK-NAPED MONARCH (*Hypothymis azurea*) – This handsome monarch is reasonably common in lowland forest, and we saw it from Sepilok through BRL, perhaps nowhere as well as the bird splash-bathing in the Menanggul from overhanging vines.

BLYTH'S PARADISE-FLYCATCHER (*Terpsiphone affinis*) – After following some very mobile birds along the Gomantong road, we finally had really good looks at a male below us from the BRL canopy walkway. Most of the adult males in Borneo, of the endemic subspecies borneensis, are white morphs. A real knockout!

Corvidae (Crows, Jays, and Magpies)

CRESTED JAY (*Platylophus galericulatus coronatus*) – This Sundaland specialty was heard a lot from the forest one morning at BRL, but the birds were slow to respond, finally flying across the road and diving into thick understory. We all saw them in flight, and some had views of perched birds. A very fancy jay! The subspecies coronatus, brown instead of blue-black, is restricted to Borneo and Sumatra. The call is thought by some to forecast rain.

BLACK MAGPIE (*Platysmurus leucopterus aterrimus*) – We had brief looks at two birds calling in flight over the entrance to the Kingfisher Trail at RDC and later a bird sitting up nicely along the Menanggul. The all-black taxon, endemic to Borneo, is a good candidate for a split from birds of the Malay Peninsula and Sumatra, which have white wing patches..

BORNEAN GREEN-MAGPIE (*Cissa jefferyi*) – This stunning montane corvid was a real highlight of our first day at Kinabalu, where we watched several of these wonderfully vocal flock associates. They were encountered then daily in the park. Recently split from its sister taxon (now Javan Green-Magpie), the two formerly called Short-tailed Green-Magpie. The epithet jefferyi is in honor of Jeffery Whitehead, John's father, who outlived his famous explorer son. [E]

BORNEAN TREEPIE (*Dendrocitta cinerascens*) – Another distinctive montane corvid, this noisy specialty was also seen daily at Kinabalu. [E]

SLENDER-BILLED CROW (SLENDER-BILLED) (*Corvus enca compilor*) – Encountered almost daily in the lowlands, where it is widespread.

Hirundinidae (Swallows)

BARN SWALLOW (*Hirundo rustica*) – We saw a handful of these migrants near Tuaran, most looking a bit ratty; we're wondering if they were over-summering? [b]

PACIFIC SWALLOW (*Hirundo tahitica*) – Seen almost daily in the lowlands and on occasion near our lodgings at Kinabalu Park. They were nesting under the eaves at Gg. Alab and BRL. [N]

Sittidae (Nuthatches)

VELVET-FRONTED NUTHATCH (*Sitta frontalis*) – One of the highlights of our pre-tour visits to the RDC canopy towers was watching a small group of these fancy nuthatches foraging and singing at very close range. The species is widespread, and we saw it later along the Tenangang, at BRL, and in the highlands at Kinabalu. Stunning!

Pycnonotidae (Bulbuls)

PUFF-BACKED BULBUL (*Pycnonotus eutilotus*) – This crested bulbul, restricted to Sundaland, was seen nicely with a mixed flock along the trail behind our lodgings at Sepilok on our first morning afield.

BLACK-HEADED BULBUL (*Pycnonotus atriceps*) – A pretty bulbul of widespread distribution; it was seen first right at the Sepilok Nature Resort, then at the RDC and in the Kinabatangan.

STRAW-HEADED BULBUL (*Pycnonotus zeylanicus*) – Largest of the bulbuls, this handsome Sundaland bulbul with the rollicking song is a popular cage bird and is traded commonly, especially in Java; the pressure has caused the species to become considered Vulnerable, with protected areas its main refuge now. A spontaneously singing bird along the Danum River at BRL was spotted by Paul and scoped by all present.

BORNEAN BULBUL (*Pycnonotus montis*) – A split from Black-crested Bulbul, this yellow-throated, dark-eyed bulbul is endemic to the lower montane forests of north-central Borneo. We had terrific views of around 10 birds along the road near the Tambunan Rafflesia Center. [E]

GRAY-BELLIED BULBUL (*Pycnonotus cyaniventris*) – One of the scarcer forest bulbuls and a Sundaland specialty; we had nice looks at one bird eating fruits in the garden at BRL.

FLAVESCENT BULBUL (*Pycnonotus flavescens leucops*) – The pale-faced race leucops, elevated to full-species status by some, is restricted to the mountains of north-central Borneo and looks quite distinctive. Myers and Phillipps call it Pale-faced Bulbul; it's a likely candidate for a split by

Cornell Clements as well, which would make another Bornean endemic. We saw it twice at Kinabalu: first in the disturbed area behind the generators near the Timpohon gate; and then right along the roadside at 1700m, which is a bit low for this form.

YELLOW-VENTED BULBUL (*Pycnonotus goiavier*) – Common and widespread in disturbed habitats and forest edge throughout the lowlands and lower highlands.

OLIVE-WINGED BULBUL (*Pycnonotus plumosus*) – This widespread, relatively dull bulbul was seen in small numbers in edge habitats at the RDC, along the Menanggul, and near the Gomantong parking lot.

CREAM-VENTED BULBUL (*Pycnonotus simplex*) – We had good studies of this one at Sepilok, the RDC, and from the BRL canopy walkway. It's a Sundaland specialty that we don't always identify.

RED-EYED BULBUL (*Pycnonotus brunneus*) – By contrast, this Sundaland specialty is common and widespread in the lowlands; it was seen daily, and we noted its rather red-orange eye and its consistently flesh- or pinkish-colored (as opposed to dark gray) legs.

SPECTACLED BULBUL (*Pycnonotus erythrophthalmos*) – Another Sundaland specialty, this was the one with the red iris and yellow eyering. It too was seen widely throughout the lowlands, from Sepilok to Gomantong, BRL, and Poring Hot Springs.

HAIRY-BACKED BULBUL (*Tricholestes criniger*) – A very distinctive Sundaland specialty, this was the one with the big yellow eyering. We saw it well several times at BRL--from the garden to the canopy walkway.

FINSCH'S BULBUL (*Alophoixus finschii*) – We had excellent looks at this scarce Sundaland specialty, considered Near Threatened, from the canopy walkway at BRL.

OCHRACEOUS BULBUL (*Alophoixus ochraceus*) – This big, puff-throated, montane bulbul was seen well near the Rafflesia Center, as well as at Kinabalu, including with a mixed flock near our Hill Lodge.

GRAY-CHEEKED BULBUL (*Alophoixus bres*) – The lowland counterpart of the previous species, this big, puff-throated bulbul was seen first with the mixed flock on the Sepilok Nature Resort trail, then along the Kingfisher Trail at the RDC. It was later seen by some at BRL as well.

YELLOW-BELLIED BULBUL (*Alophoixus phaeocephalus*) – Another distinctive bulbul restricted to Sundaland, this pretty bulbul was seen well inside the forest at the RDC, where it called persistently from a perch along the Kingfisher Trail. We later saw it a couple of times at BRL.

BUFF-VENTED BULBUL (*Iole olivacea*) – This was the big one with the pale iris, seen well several times, most memorably bathing in the little forest stream along the trail at the RDC; and then repeatedly eating berries from the fruiting tree just off the dining room at BRL. It's another Sundaland bulbul that is considered Near Threatened. *Iole*, in Greek mythology, was beloved by the hero Heracles, his love for her eventually leading to his death. The genus was named by Blyth in 1844, but exactly why he selected "*Iole*" for the genus is unclear, as *Iole* is depicted as a very handsome young woman.

ASHY BULBUL (CINEREOUS) (*Hemixos flavala connectens*) – This one was seen by some above Masakob Waterfall in the Crocker Range; it was the puffy-throated bulbul with the green wings. The taxon *connectens* (restricted to the highlands of northern Borneo) and the taxon *cinereus* (of the Malay Peninsula and Sumatra) are sometimes split off as a distinct species (and called Cinereous Bulbul) from the more widespread Asian group *flavala*.

STREAKED BULBUL (*Ixos malaccensis*) – This distinctive Sundaland bulbul was seen first eating palm fruits on the grounds of the Sepilok Nature Resort. We had good looks again from the BRL canopy walkway.

Cettiidae (Bush-Warblers and Allies)

BORNEAN STUBTAIL (*Urosphena whiteheadi*) – What a highlight! It was our final morning at Kinabalu Park--when Hazwan heard it singing just down the road. With a little playback enticement, it came in very close and sang and sang as we watched! It normally forages by creeping surreptitiously among the leaf litter or on mossy logs in the understory of montane forest. Except for the occasional lucky encounter, birders must locate it by ear though it is said to be more common above 2000m on Gg. Kinabalu. Yet another montane endemic named for Whitehead, it completed our Whitehead's "strait flush" (including the Broadbill, Trogon, Spiderhunter, Pygmy-Squirrel, and Stubtail). [E]

YELLOW-BELLIED WARBLER (*Abroscopus superciliosus*) – This was the bamboo specialist with the sweet song that we saw well in the tall bamboo and trees outside the Balsam Cafe at Kinabalu.

MOUNTAIN TAILORBIRD (*Phyllergates cucullatus*) – Another real cutie, but not actually a tailorbird; this bird is now placed in Cettiidae. We saw it quite well along the roadside at Kinabalu.

SUNDA BUSH-WARBLER (*Horornis vulcanius*) – After hearing it at Gg. Alab, we saw this one well along the upper part of the road at Kinabalu. As implied by its English name, this is yet another Sundaland specialty.

Phylloscopidae (Leaf Warblers)

MOUNTAIN WARBLER (*Phylloscopus trivirgatus*) – A.k.a. Mountain Leaf-Warbler, this one was seen well daily at Kinabalu, often with flocks.

YELLOW-BREASTED WARBLER (*Seicercus montis*) – This charming Sundaland specialty, with the high-pitched, sweet song, was fairly common with the small-bird parties at Kinabalu. *Seicercus* refers to its habit of shaking the tail, a trait characteristic of all 11 species belonging to the genus.

Locustellidae (Grassbirds and Allies)

STRIATED GRASSBIRD (*Megalurus palustris*) – Scoped in the palm plantations between Sukau and Gomantong, where it sang from the wires.

Cisticolidae (Cisticolas and Allies)

DARK-NECKED TAILORBIRD (*Orthotomus atrogularis*) – Our first one we called in for good looks at the RDC, and we later saw it at close range along the Gomantong road; and we heard it at BRL. Tailorbirds are named for their incredible nest-building habits, which are shared with a few others cisticolids, though perhaps most impressively demonstrated by the tailorbirds. They stitch together two pliable living leaves using natural fibers--spider web, silk, or plant down--to tie them together through holes pierced with their bills. The cup of leaves then serves as a sturdy platform for their nest. A single nest may contain more than 100 stitches!

ASHY TAILORBIRD (*Orthotomus ruficeps*) – We saw this common Sundaland specialty almost daily in the lowlands, from near the ground to eye-to-eye from the canopy towers.

RUFIOUS-TAILED TAILORBIRD (*Orthotomus sericeus*) – Another endearing tailorbird, with an equally loud song, this cutie was seen especially well pre-tour in the Sepilok Nature Resort gardens. It was also a regular in the gardens at Sukau and BRL.

YELLOW-BELLIED PRINIA (*Prinia flaviventris*) – Widespread in the more open areas of the lowlands, where it was heard and seen regularly; we saw it well from Sepilok, en route to Gomantong, along the Tenangang, and at BRL. We inadvertently awakened a sleeping bird in the roadside grasses while spotlighting on a night drive at BRL.

Zosteropidae (White-eyes, Yuhinas, and Allies)

CHESTNUT-CRESTED YUHINA (*Yuhina everetti*) – Common and captivating, tight flocks of these little Zosteropids, endemic to the submontane and montane forests of Borneo, were regular in the forest edge at Tambunan and Kinabalu. Their habit of moving rapidly and in tandem is a trait shared with the white-eyes, which often flock with them. [E]

PYGMY WHITE-EYE (*Oculocincta squamifrons*) – A.k.a. Bornean Ibon; "ibon" is Tagalog for "bird," a name that was given to some white-eyes found in the Philippines, the country where Tagalog is the basis for the standardized national language. Yet this ibon is endemic to Borneo and in a monotypic genus. Strange.... We had exceptionally good studies of birds foraging low in the roadside trees near the Tambunan Rafflesia Center. [E]

MOUNTAIN BLACK-EYE (*Chlorocharis emiliae*) – Of a monotypic genus, quite different from other white-eyes, this striking endemic was first encountered at the upper end of the Gg. Alab side road. Our surprise was how common they turned out to be in Kinabalu Park this year--being seen daily, down to 1600m and once in a flock of 20 birds! We may have witnessed a downslope movement in response to drier conditions at higher elevations owing to El Nino. There is precedent for such downslope movements during droughts: In 1983, after the third strongest El Nino episode since 1950 (as recorded in the U.S.), the species was recorded down to 1500m in the park. [E]

BLACK-CAPPED WHITE-EYE (*Zosterops atricapilla*) – This Sundaland specialty is a common species in montane Borneo, where we saw them repeatedly in the Crocker Range and at Kinabalu.

Timaliidae (Tree-Babblers, Scimitar-Babblers, and Allies)

BOLD-STRIPED TIT-BABBLER (*Mixornis bornensis*) – A trio of these noisy near-endemics (also found in Java) were seen well first along the roadside at Sepilok, where they responded nicely to playback. They were regulars throughout the lowlands, a bird (seen by some) carrying nesting material to a nest along the boardwalk at BRL. A recent split, resulting in Striped Tit-Babbler being renamed, the Borneo taxa (along with the Java birds) becoming Bold-striped Tit-Babbler and the southeast Asia taxa becoming Pin-striped Tit-Babbler. Their "chonk-chonk-chonk" can be heard throughout the lowlands. [N]

FLUFFY-BACKED TIT-BABBLER (*Macronus ptilosus*) – This Near Threatened Sundaland specialty is one of the coolest babblers with its electric blue eyering and neck patches. It was quite responsive to playback along the Gomantong road, where we saw several pair well, their blue gular pouches inflated while calling.

CHESTNUT-WINGED BABBLER (*Cyanoderma erythropterum*) – Fairly common throughout the lowlands, this one is also a Sundaland specialty that performed mellow duets from the RDC (where our first ones came into vegetation beside the Bristlehead Tower) and Gomantong to BRL.

BLACK-THROATED BABBLER (*Stachyris nigricollis*) – Another Sundaland specialty regarded as Near Threatened, this one was also seen well along the Gomantong road. It's another striking babbler that seduces one into loving babblers.

CHESTNUT-RUMPED BABBLER (*Stachyris maculata*) – We saw this one, in response to playback, inside the forest along the RDC trail. It's yet another Sundaland specialty.

GRAY-THROATED BABBLER (*Stachyris nigriceps*) – This Sundaland specialty was seen well at Kinabalu, where it is a fairly common bird with understory flocks.

GRAY-HEADED BABBLER (*Stachyris poliocephala*) – BRL [*]

Pellorneidae (Ground Babblers and Allies)

MOUSTACHED BABBLER (*Malacopteron magnirostre*) – This Sundaland specialty with the lovely whistles was seen at very close range from the BRL canopy walkway.

SOOTY-CAPPED BABBLER (*Malacopteron affine*) – This babbler with the "random song" was seen well in the mid-story along the Gomantong entrance road, where we watched one searching under leaves for insects and saw it take a caterpillar. It occurs only in Sundaland and is another one considered Near Threatened by the IUCN.

SCALY-CROWNED BABBLER (*Malacopteron cinereum*) – Very similar to Rufous-crowned, this babbler is the smaller one with the pinkish legs that we saw well with mixed flocks in the understory at BRL. The scales on the crown are difficult to see.

RUFIOUS-CROWNED BABBLER (*Malacopteron magnum*) – This is the larger—magnum—of these two look-alikes, with gray legs and no scaling on the crown. We encountered it in the forest at BRL, both from the trails and the canopy walkway. Like most of these remarkable babblers, it's found only in Sundaland and is considered Near Threatened.

BLACK-CAPPED BABBLER (*Pellorneum capistratum*) – A pair of these charming babblers performed nicely for us--walking on the ground nearby--along the Sukau Rainforest Lodge boardwalk. Yet another Sundaland specialty.

SHORT-TAILED BABBLER (*Pellorneum malaccense*) – We had one bird collecting nesting material along the Jacuzzi Trail, and then David spotted a sleeping bird on a night walk along the BRL Nature Trail. Need we say it? Yes, another Sundaland specialty.

WHITE-CHESTED BABBLER (*Pellorneum rostratum*) – Foraging in pairs near the water's edge, this Sundaland specialty, Near Threatened, was seen well first at the stream edge along the RDC Kingfisher Trail, but then repeatedly along the Kinabatangan tributaries and even at BRL.

FERRUGINOUS BABBLER (*Pellorneum bicolor*) – We had our best looks at one of these, yep, Sundaland babblers in response to playback along the BRL entrance road.

STRIPED WREN-BABBLER (*Kenopia striata*) – Another Sundaland specialty, this scarce babbler was seen exceedingly well by all along the Pitta Trail at BRL.

BORNEAN WREN-BABBLER (*Ptilocichla leucogrammica*) – This skulking terrestrial endemic took a bit more work; but ultimately it too was seen by all in the same section of the Pitta Trail as the Striped Wren-Babbler. A.k.a. Bornean Ground-Babbler, it's considered Vulnerable. [E]

HORSFIELD'S BABBLER (*Turdinus sepiarius*) – This Sundaland specialty was seen near the stream below the BRL Jacuzzi pool.

MOUNTAIN WREN-BABBLER (*Turdinus crassus*) – Another wren-babbler highlight was watching an excited pair of this sparsely distributed montane endemic singing from the shrubbery below us on the Kiau View Trail at Kinabalu. They came in from well downslope. [E]

Leiothrichidae (Laughingthrushes and Allies)

BROWN FULVETTA (*Alcippe brunneicauda*) – Yet another Sundaland specialty that is considered Near Threatened; it perhaps best seen at BRL, where we saw it from the canopy towers and watched a flock bathing. Its charm is in its personality, not its looks. The fulvetas, once placed with the Ground Babblers, are now grouped with the Laughingthrushes.

SUNDA LAUGHINGTHRUSH (*Garrulax palliatus*) – Found only on Sumatra and Borneo, this is one of the montane specialties of the trip. We saw our first ones near the Masakob waterfall and then encountered them almost daily with big-bird flocks at Kinabalu, ultimately getting really good views of two birds foraging on the ground.

BARE-HEADED LAUGHINGTHRUSH (*Garrulax calvus*) – A split from Black Laughingthrush, this weirdly wonderful laughingthrush, a.k.a. Bornean Bald Laughingthrush, has become another Bornean endemic. We heard them in the distance with other laughingthrushes, and eventually

persistence paid off: A pair approached us, the presumed male inflating his bare-skin pouches as he sang. Yip! Yip! [E]

CHESTNUT-HOODED LAUGHINGTHRUSH (*Ianthocincla treacheri*) – A recent split (by Cornell at least) from Chestnut-capped Laughingthrush, this species is endemic to the mountains of north-central Borneo. It is common within its range and seems a major component of big-bird flocks in the highlands. We had multiple great encounters, starting in the Crocker Range and sometimes including as many as a dozen birds. [E]

Irenidae (Fairy-bluebirds)

ASIAN FAIRY-BLUEBIRD (*Irena puella*) – Now representing a family of just two closely related species, the fairy-bluebird is uncommon on our route. We were lucky to have seen that glowing male foraging in a low fruiting vine along the BRL entrance road.

Muscicapidae (Old World Flycatchers)

ORIENTAL MAGPIE-ROBIN (*Copsychus saularis*) – Fairly common in edge habitats throughout the lowlands and foothills. We heard them singing strongly at dawn from the Sepilok Nature Resort to BRL and had multiple good views throughout the lowlands.

WHITE-RUMPED SHAMA (WHITE-CROWNED) (*Copsychus malabaricus stricklandii*) – Common (by its lovely song) throughout the lowlands, but not always easily seen. We saw it first--and perhaps best--along the trail at the RDC, where we scoped a singing bird. The taxon *stricklandii*, endemic to Sabah and northeastern Kalimantan, is elevated to species status by some (including Myers and Phillipps), but it is still treated as a subspecies of White-rumped by the Cornell Clements checklist.

PALE BLUE-FLYCATCHER (*Cyornis unicolor*) – Heard, and then seen nicely, from the BRL canopy towers.

LONG-BILLED BLUE-FLYCATCHER (*Cyornis caerulatus*) – This Sundaland blue-flycatcher, a.k.a. Large-billed Blue-Flycatcher, was seen well by all along the Jacuzzi loop trail at BRL. Considered Vulnerable as a species.

MALAYSIAN BLUE-FLYCATCHER (*Cyornis turcosus*) – We had this Near Threatened Sundaland blue-flycatcher along the Menanggul, the Tenangang, and the big Kinabatangan itself.

BORNEAN BLUE-FLYCATCHER (*Cyornis superbus*) – We had great views of a singing male and a female along the Jacuzzi Loop Trail and then encountered another male along the BRL road. [E]

CHESTNUT-TAILED JUNGLE-FLYCATCHER (*Cyornis ruficauda*) – A.k.a. Rufous-tailed Jungle-Flycatcher, this surprise jungle-flycatcher in the forest below the Tambunan Rafflesia Center was a lifer for all of us, even Hazwan! We all had great views. This very scarce submontane resident occurs only in northern Borneo and the Philippines. This was the first time we've had it on a Borneo tour.

INDIGO FLYCATCHER (*Eumyias indigo*) – A common montane breeder, this flycatcher with the sweet song was seen first near Gg. Alab and then again at Kinabalu.

VERDITER FLYCATCHER (*Eumyias thalassinus*) – Though this species has a wide distribution, it's not very common on our route. We were delighted when Suzanne pointed one out along the road at BRL.

EYEBROWED JUNGLE-FLYCATCHER (*Vauriella gularis*) – This distinctive, unobtrusive endemic was seen beautifully first along the lower Silau-Silau, and then several times along the Kinabalu road edge in the early morn, when they like to flycatch along the road at first light. [E]

WHITE-BROWED SHORTWING (*Brachypteryx montana erythrogyna*) – This sexually dimorphic, montane species lives along streams at Kinabalu; we had nice views of a color-banded female near the edge of the Silau-Silau.

BORNEAN WHISTLING-THRUSH (*Myophonus borneensis*) – Perhaps the plainest of the whistling-thrushes, this chunky endemic was seen repeatedly at Kinabalu, by all on rocks in the lower Silau-Silau; then by some right around our Hill Lodge, where it came very early each morning to check for moths under our porch lights; and by all along the upper portion of the Kinabalu road. [E]

WHITE-CROWNED FORKTAIL (WHITE-CROWNED) (*Enicurus leschenaulti frontalis*) – The lowland representative of this species was seen well at Poring, along the creek where we searched for the reported frogmouth.

WHITE-CROWNED FORKTAIL (BORNEAN) (*Enicurus leschenaulti borneensis*) – A.k.a. Bornean Forktail, this is the endemic, montane taxon--the one at Kinabalu. It has a longer tail and more white on the crown than the lowland birds, and recent molecular studies suggest that *borneensis* should be a distinct species, in which case it would become another Bornean endemic. It is already treated as such in our two field guides. Our first encounter was a bird that flew from the flowing ditch at the roadside below the Masakob waterfall; it got away quickly. At Kinabalu Park we crept along the lower Silau-Silau, taking turns getting looks as this beauty foraged on boulders in the stream. David & Suzanne found another along the upper Silau-Silau during a break.

CHESTNUT-NAPED FORKTAIL (*Enicurus ruficapillus*) – We were very lucky with this one, the fanciest of the family and another Sundaland specialty: We scoped one of a pair foraging right in the road near the entrance to the BRL Pitta Trail. Another was seen along the stream below the Jacuzzi waterfall.

PYGMY BLUE-FLYCATCHER (*Ficedula hodgsoni*) – A male of this pretty little flycatcher came in close in response to playback of Collared Owlet along the upper Kinabalu-Timpohon road.

LITTLE PIED FLYCATCHER (*Ficedula westermanni*) – Fairly common and widespread, this species was first seen in the Crocker Range--including a molting young male--and later at Kinabalu Park.

Turdidae (Thrushes and Allies)

ORANGE-HEADED THRUSH (*Geokichla citrina*) – This beauty is a scarce breeder at Kinabalu, where we saw two different birds foraging at the road edge in the dawning hours.

EVERETT'S THRUSH (*Zoothera everetti*) – After having glimpsed and then heard this rarity at the Kinabalu road edge one morning, we returned earlier (pre-traffic!) the following morn and were rewarded with terrific views of a pair foraging in the wet leaves at the edge of the road. They stayed for long scope views, much to our delight. It was another lifer for Hazwan! [E]

FRUIT-HUNTER (*Chlamydochaera jefferyi*) – Perhaps the highlight of an eventful final morning in Kinabalu Park was finally seeing this elusive endemic with the high-pitched whistles. Our views were of a silent male foraging in the canopy along the road. Yip! Yip! [E]

Sturnidae (Starlings)

ASIAN GLOSSY STARLING (*Aplonis panayensis*) – A regular resident in disturbed habitats, from towns and gardens to palm plantations, this red-eyed starling was seen widely, starting at Sepilok and continuing to KK.

COMMON HILL MYNA (*Gracula religiosa*) – The only native myna in Borneo, this one is also the handsomest. We saw it first at Sepilok, but possibly best from the RDC and BRL canopy towers, when we scoped birds in great light.

JAVAN MYNA (*Acridotheres javanicus*) – This was the widespread myna of disturbed areas from Sepilok to Lahad Datu and KK. Birds introduced near Sepilok became established locally and expanded along roads through the palm plantations to the coast at Lahad Datu. [I]

Chloropseidae (Leafbirds)

GREATER GREEN LEAFBIRD (*Chloropsis sonnerati*) – The females are more easily distinguished than the males in the two look-alike green leafbirds, but when the two species are together, the size difference is notable as well. Both sexes were seen at BRL. Both leafbirds are Sundaland specialties.

LESSER GREEN LEAFBIRD (*Chloropsis cyanopogon*) – The more common of the two leafbirds, this one was seen often in the lowland forests of Sepilok and BRL, including some great studies from the canopy towers. It's considered Near Threatened.

BORNEAN LEAFBIRD (*Chloropsis kinabaluensis*) – Another Bornean endemic, as split from Blue-winged Leafbird; the females have black masks/throats (like the males), which Blue-winged females lack. We saw a small group in the canopy along the roadside below the Tambunan Rafflesia Center, and some folks saw a male at close range from the Liwagu Restaurant patio. [E]

Dicaeidae (Flowerpeckers)

YELLOW-BREASTED FLOWERPECKER (*Prionochilus maculatus*) – This Sundaland specialty was seen first at the RDC and then at BRL, where several were seen feeding amid the flowering and fruiting shrubs in the garden.

YELLOW-RUMPED FLOWERPECKER (*Prionochilus xanthopygius*) – This endemic was equally widely seen, from the RDC to the Gomantong parking area, but perhaps best from the BRL dining area. [E]

THICK-BILLED FLOWERPECKER (*Dicaeum agile*) – After hearing their song, we saw two birds in the canopy from the tallest BRL tower.

YELLOW-VENTED FLOWERPECKER (*Dicaeum chrysorrheum*) – Though widespread in se Asia, this species is uncommon on our route. We saw it only once--as a speck in the canopy along the Menanggul.

ORANGE-BELLIED FLOWERPECKER (*Dicaeum trigonostigma*) – By contrast, this spiffy flowerpecker is common and widespread on our route, its song being one of the most frequently heard throughout the lowlands. We saw it well right on the grounds of our lodgings at Sepilok and then repeatedly at BRL.

BLACK-SIDED FLOWERPECKER (*Dicaeum monticolum*) – After our first males near the Tambunan Rafflesia Center and on Gg. Alab, we saw this handsome montane endemic right outside our Hill Lodge at Kinabalu, where it fed regularly on the melastome berries in the hedge by the parking lot. [E]

SCARLET-BACKED FLOWERPECKER (*Dicaeum cruentatum*) – This striking flowerpecker was seen nicely at Sepilok, where it was seen outside David & Suzanne's cabin, in a berry bush at the driveway entrance, and in the mistletoe down the road from the Sepilok Nature Resort.

Nectariniidae (Sunbirds and Spiderhunters)

RUBY-CHEEKED SUNBIRD (*Chalcoparia singalensis*) – First seen from the RDC towers, then at Gomantong, and then several times at BRL.

PLAIN SUNBIRD (*Anthreptes simplex*) – Another Sundaland specialty, this one is rather aptly named. We saw it at Sepilok, from the RDC canopy tower (nicely!), at Gomantong, and at BRL.

PLAIN-THROATED SUNBIRD (*Anthreptes malacensis*) – Seen well in the gardens at the Sepilok Nature Resort and then from the RDC towers and walkways. The subspecies, which belongs to the brown-throated rather than the gray-throated group, is endemic to Borneo.

RED-THROATED SUNBIRD (*Anthreptes rhodolaemus*) – We had good looks at males we identified as this forest-inhabiting Sundaland specialty in the canopy of flowering trees seen from the Hornbill tower and from the canopy walkway at RDC. The ID is a rather tough one.

VAN HASSELT'S SUNBIRD (*Leptocoma brasiliana*) – Formerly known as Purple-throated, this small sunbird is electric in good light! We had lovely views of males from the Bristlehead Tower at RDC. The rather incongruous moniker "brasiliana" could possibly be explained by the following: "Brasil," "pau-brasil," or "brasilwood," is the name given to a dyewood long imported from the East that produces a purplish-red dye (Brazil took its name from this tree since a similar, native tree was referred to as "pau-brasil" by Portuguese explorers). It's probably a reference to the deep-purplish color of the sunbird's underparts.

COPPER-THROATED SUNBIRD (*Leptocoma calcostetha*) – This large, long-tailed sunbird, another Sundaland specialty, is locally common in mangroves and coastal forests and gardens but is scarce inland. We had dynamite views of males and females in the flowering shrubs near the entrance to the RDC.

OLIVE-BACKED SUNBIRD (*Cinnyris jugularis*) – Common in disturbed habitats, this widespread species was seen in the gardens at Sepilok and the RDC, and from the balcony of the Rose Cabins (at lunch).

TEMMINCK'S SUNBIRD (*Aethopyga temminckii*) – This Sundaland specialty is a lower montane bird, strikingly brilliant (with a fancy, red tail). We saw it well, first in the Crocker Range, and then repeatedly at Kinabalu.

CRIMSON SUNBIRD (*Aethopyga siparaja*) – The lowland counterpart of the previous species (but with a dark blue tail), this beauty was seen wonderfully on the grounds of the Sepilok Nature Resort, in the flowering shrubs at the RDC parking lot, and along the Menanggul.

THICK-BILLED SPIDERHUNTER (*Arachnothera crassirostris*) – We had terrific studies of this Sundaland specialty, both in the gardens near the bridge at our Sepilok resort, and in the flowers at the RDC parking lot.

LONG-BILLED SPIDERHUNTER (*Arachnothera robusta*) – Another Sundaland-specialty spiderhunter, this one with the streaked, yellowish breast; we had good views of one foraging in the canopy of shorter trees visible from the RDC canopy walkway.

LITTLE SPIDERHUNTER (*Arachnothera longirostra*) – The commonest of the spiderhunters, this one was seen repeatedly, starting with our excellent views of birds feeding in the garden flowers at the Sepilok Nature Reserve. A bit of a surprise was seeing one in Kinabalu Park at 1500m--the upper elevation limit of its range; it was my first at Kinabalu.

PURPLE-NAPED SPIDERHUNTER (*Arachnothera hypogrammicum*) – Formerly considered an understory "sunbird," this species has been transferred from Hypogramma into the spiderhunter genus *Arachnothera*. We saw a couple of pairs well on the grounds of the Sepilok Nature Resort and then at the RDC. The male is stunning!

WHITEHEAD'S SPIDERHUNTER (*Arachnothera juliae*) – The toughest and most distinctive of the spiderhunters, this endemic was spotted by Roger near the Masakob waterfall, and several folks got on it; but it got away too quickly for most of us. We were then very lucky to have encountered a calling bird along the road at Kinabalu Park; it responded to playback by coming in close, offering good views to all (and even some photos!). [E]

YELLOW-EARED SPIDERHUNTER (*Arachnothera chrysogenys*) – This Sundaland specialty--the one with the big ear patch and the small eyering--was seen right at the Sepilok Nature Resort pre-tour.

SPECTACLED SPIDERHUNTER (*Arachnothera flavigaster*) – Similar to the last species, this Sundaland specialty was the one with the relatively small ear patch and prominent eyering. We watched a whole flowering tree full of them along the road near the Sepilok Nature Resort and then saw a couple more from the BRL canopy walkway.

BORNEAN SPIDERHUNTER (*Arachnothera everetti*) – Formerly called "Streaky-breasted" Spiderhunter, the taxon everetti that occurs in Sabah was recently elevated to species status by Cornell, thus becoming another full Bornean endemic on the Clements checklist. It was feeding in the blooming ginger in the BRL gardens, then seen near the Tambunan Rafflesia Center and at 1500m in Kinabalu Park. [E]

Motacillidae (Wagtails and Pipits)

PADDYFIELD PIPIT (*Anthus rufulus malayensis*) – A.k.a. Oriental Pipit, this widespread species was first seen in the distance along the edge of the runway at the Lahad Datu airstrip (where it's the only pipit). Some of us had much closer views of a bird near the Tuaran marsh N of KK.

Passeridae (Old World Sparrows)

EURASIAN TREE SPARROW (*Passer montanus*) – Introduced in Borneo, but apparently doing quite well near human habitations throughout. [I]

Estrildidae (Waxbills and Allies)

DUSKY MUNIA (*Lonchura fuscans*) – The most ubiquitous of all the Bornean endemics, this one was seen often. Perhaps our most interesting encounter was with a bird bringing long fibers to its nest above the water along the Menanggul. [EN]

SCALY-BREASTED MUNIA (*Lonchura punctulata*) – Considered a recent colonist from the Philippines, this species was seen at the lagoon edge at Sepilok Nature Resort and then near Tuaran.

CHESTNUT MUNIA (*Lonchura atricapilla*) – A common resident in open areas throughout; the male is a sharp-looking munia. We saw it first pre tour at Sepilok, but then also in the Kinabatangan (including the gardens of the Sukau Rainforest Lodge), en route to Gomantong, at Lahad Datu, and near Tuaran.

MAMMALS

COLUGO (*Cynocephalus variegatus*) – What a treat! Thanks to info from Paul's colleagues, we found a scarce male Colugo on its day roost along the BRL Nature Trail. Unlike all the Colugos I've seen before, this one was rufous with small white spots; it turns out I had never seen a MALE before! According to the new Phillipps' Field Guide to the Mammals of Borneo, over 90% of Bornean Colugos are grayish with black speckling, and most of these are females; dark rufous Colugos are always males, which occur in a ratio of one to every four females! According to some mammal taxonomists, the colugos have been split and renamed, this one becoming Bornean Colugo, *Galeopterus borneanus*.

WRINKLE-LIPPED FREE-TAILED BAT (*Chaerephon plicatus*) – Hundreds of thousands of bats boiled out of the Gomantong caves as dusk approached. The great majority of these were of this species, which clearly provides ample prey for the numerous raptors gathering to dine on the wing. On our evening at the caves this trip, the bats were pouring out early, in discrete clouds that drifted off in the same general direction. It was fun to watch the Bat Hawks diving into the glut of protein.

COMMON TREESHREW (*Tupaia glis*) – This one was seen by Sue and Roger at BRL.

MOUNTAIN TREESHREW (*Tupaia montana*) – We all saw this endemic multiple times at Kinabalu. Being common at the higher elevations, where ants and termites are scarce or absent, its behavior is important to the high-elevation *Nepenthes* pitcher plants. It will climb to the rim of the sturdy pitchers to lick the sweet syrup on the underside of the lid, meanwhile defecating into the pitchers, thus providing a source of scarce nitrogen to the plant. [E]

SLOW LORIS (*Nycticebus cougang*) – We saw one of these sloth-like primates hanging high above the BRL entrance road, thanks to another group, on a night drive. They are one of ten species of primates that occur together in Sabah. They are omnivorous, capable of eating insects and millipedes that are poisonous to most other mammals. But they seem to prefer sap, even of trees generally considered poisonous, and will vigorously defend their territories against their neighbors. The race we saw, *menangensis*, is considered a distinct species by mammalogists who split the many forms. According to the Phillipps' Field Guide to the Mammals of Borneo, it is restricted to Borneo and the southern Philippines; they call it Philippine Slow Loris.

CRAB-EATING MACAQUE (*Macaca fascicularis*) – A.k.a. Long-tailed Macaque. This species is the most omnivorous and flexible in diet of the all the Bornean primates. It prefers edge and second-growth forest and was especially common in the Kinabatangan and was seen as well at Sepilok (by some), Gomantong, and along the river at BRL. It's widespread in peninsular Myanmar, Sundaland, and s Indochina.

PIGTAIL MACAQUE (*Macaca nemestrina*) – The 9-10 species of primates that are sympatric in the Kinabatangan have adapted an array of methods to partition the resources. The macaques, which are quite common, are generalists, foraging on the ground and in the trees for a large variety of food items, from fruit and insects to certain leaves and bark. A dominant male controls a sometimes very large harem of females with young, as well as some younger males. We had multiple engrossing encounters with Pigtail Macaques--less common than the last species--in the Kinabatangan, especially along the Rasang & Tenangang tributaries, where we watched captivating youngsters at close range and troops crossing artificial primate bridges.

SILVERED LEAF MONKEY (*Presbytis cristata*) – A.k.a. Silvered Langur. This species is a bit more widespread than the next, being found in peninsular Myanmar, Thailand, and Malaysia, as well as the Greater Sundas. We had exceptional views of a troop, including mothers with blond babies, crossing the Tenangang on the "primate bridge."

RED LEAF MONKEY (*Presbytis rubicunda*) – This beautiful endemic was seen first at Gomantong, but perhaps our best studies were of a close group along the Jacuzzi Loop Trail at BRL. They were even seen in the forest near our chalets. [E]

PROBOSCIS MONKEY (*Nasalis larvatus*) – These bizarre, endemic monkeys with the great noses, fat bellies, and long, straight, white tails are among the foremost natural history attractions of Borneo. Seeing numbers of them along the banks of the Kinabatangan and its tributaries, where they gather to feed, socialize, and roost each evening, was a special treat. We even inadvertently spotlighted a few that were sleeping high above the Menanggul on our night cruises. [E]

GRAY GIBBON (*Hylobates muelleri*) – A.k.a. Bornean Gibbon, this primate is heard often giving its remarkable, far-carrying calls, but it's rarely seen. We were fortunate to have been able to scope and watch a family foraging in a fruiting fig and brachiating through the trees along the BRL entrance road one foggy morning. [E]

ORANGUTAN (*Pongo pygmaeus*) – Now usually called Bornean Orangutan, having been split from the larger Sumatran Orangutan based on DNA analysis, which shows the two taxa diverged some 400,000 years ago. We've never seen so many Orangutans on any one tour! There were so many sightings we lost exact track, but we encountered at least 20! Our first ones were at the Gomantong Caves, where we had great views of a male hanging out near the village at the mouth of the cave. The Kinabatangan produced great views of foraging beasts and an amazing animal crossing the Tenangang on the rope bridge--the first time we'd ever seen an Orang using one of the bridges that were originally constructed with Orangutans in mind. We had daily encounters at BRL, perhaps the best of which was watching from the canopy walkway a female and her young constructing a sleeping platform and settling into it for the night (and then awakening and leaving it the following morn)! [E]

- PALE GIANT SQUIRREL** (*Ratufa affinis*) – We had eye-to-eye views of these giant squirrels along the RDC walkway. The species is considered a Sundaland specialty of Near Threatened status, and the race we saw is *R.a.sandakanensis*, sometimes called Sunda Giant Squirrel.
- PREVOST'S SQUIRREL** (*Callosciurus prevostii*) – The common, good-sized squirrel of the lowland rainforest, where it was seen almost daily. The Bornean taxon we saw is blackish with a chestnut belly.
- KINABALU SQUIRREL** (*Callosciurus baluensis*) – This scarce endemic to montane northern Borneo is not only big, but it inhabits the most diverse oak and chestnut forest in the world. Yet little is known of its behavior. We were lucky to get a good looks at a couple of them, including one along the Pandanus Trail that REW photographed. [E]
- PLANTAIN SQUIRREL** (*Callosciurus notatus*) – Fairly common in the lowlands, where we saw it at the RDC, in the Kinabatangan, at Gomantong, and at BRL.
- BORNEAN BLACK-BANDED SQUIRREL** (*Callosciurus orestes*) – This was the one at Kinabalu with the stripes on the side and the white spot on the neck behind the ear. It was very common in the highlands. There were several scampering around the trash cans near the top of the Kinabalu road. [E]
- LOWE'S SQUIRREL** (*Sundasciurus lowii*) – Seen by David at BRL.
- JENTINK'S SQUIRREL** (*Sundasciurus jentinki*) – This one, yet another endemic, was the one with whitish underparts (no stripes on the sides), a whitish eyering and nose marking, and a long, thin tail. We saw it first in the Crocker Range and then daily at Kinabalu, where it is locally common. [E]
- MALAYSIAN STRIPED GROUND SQUIRREL SP.** (*Lariscus hosei*) – A.k.a. Four-striped Ground Squirrel; we identified this one on only one day at BRL. [E]
- BORNEAN MOUNTAIN GROUND-SQUIRREL** (*Dremomys everetti*) – With its elongated nose and lack of markings, this one is easily confused with a treeshrew. We compared the two at Kinabalu, seeing this species on three or four different days. [E]
- PLAIN PYGMY SQUIRREL** (*Exilisciurus exilis*) – A.k.a. Bornean Pygmy Squirrel, this endearing pygmy squirrel of the lowlands--a contender for the world's smallest squirrel--was first seen at the RDC, and then throughout the lowlands, where it would rush up and down tree trunks and around the limbs. It forages on mosses and lichens, feeding on bark and small insects. It was much enjoyed during our stay. [E]
- WHITEHEAD'S PYGMY SQUIRREL** (*Exilisciurus whiteheadi*) – But this little cutie, with its fuzzy white ear tufts, may have been our very favorite among the squirrels. We had marvelous looks, especially at a couple of close ones our last couple of mornings at Kinabalu. They feed on bark, insects (particularly ants), and a bit of vegetable matter. Their high-pitched whistles can be confused with the calls of the Fruit-hunter. [E]
- RED GIANT FLYING SQUIRREL** (*Petaurista petaurista*) – Our first encounter with this species, the largest of the flying squirrels, was during the daytime--when we saw mostly its black-tipped tail sticking out of a cavity in a big Menggaris beside the RDC canopy walkway. We returned the next day in the late afternoon and had marvelous views of this extraordinary squirrel emerging and crawling up high before gliding away at dusk. We would later see several additional individuals on night drives at BRL.
- THOMAS'S FLYING SQUIRREL** (*Aeromys thomasi*) – It was already getting dark, but we spotlighted another flying squirrel gliding away from the RDC canopy walkway: It was a darker reddish throughout and lacked the black tail tip. It was the endemic Thomas's Flying Squirrel--and the only one we would see on this trip. [E]
- SMALL-CLAWED (INDIAN SMOOTH) OTTER** (*Aonyx cinerea*) – Shelli and Paul (& perhaps others?) saw this species swimming in the Danum River at BRL.
- COMMON PALM CIVET** (*Viverra zibetha*) – We spotlighted this species along the Menanggal during our first night cruise, and some folks saw a second one at BRL.
- MALAY CIVET** (*Viverra zibetha*) – After a couple of these got away on one night drive, we lucked into another one that gave us a good view right beside the road at BRL. This species is one of three civets known to produce civetone. Check out the uses of civetone!
- BINTURONG** (*Arctictis binturong*) – Paul had promised that this was a good season for seeing Binturongs, the largest of the civets, since there are usually more figs in fruit in July than at any other time of year at BRL. Sure enough, the "hottest" fig we found was indeed attracting a Binturong, which foraged in the canopy during low-light periods (and presumably during the night). We got to see it (and its white-rimmed ears) during the day along the Hornbill Trail.
- BEARDED PIG** (*Sus barbatus*) – Our first of these big pigs was along the banks of the Kinabatangan downriver from our lodge. We had additional encounters along the Gomantong road and en route to and from BRL. I think Anne and Roger decided the pig they encountered along the trail at the RDC was a Wild Boar, but, according to the new Phillipps' mammal guide, there is no established population of that introduced species in Borneo; so it was perhaps indeed a Bearded Pig.
- GREATER MOUSE DEER** (*Tragulus napu*) – We saw this miniature deer, the larger and more common of the two mouse deer, by night at BRL. Mouse deer can digest leaves, but they seem to feed primarily on fruit and are an important disperser of seeds. This species occurs from Vietnam to Sumatra, Borneo, and the southern Philippines.
- MUNTJAC (BARKING DEER)** (*Muntiacus muntjak*) – We heard it barking near the Tambunan Rafflesia Center. [*]
- SAMBAR** (*Cervus unicolor*) – A few singleton does of this heavy-bodied deer, widespread in Asia, were seen at BRL on various night drives.

Herps

- HARLEQUIN FLYING TREEFROG** (*Rhacophorus pardalis* (Rhacophoridae)) – A canopy inhabitant that sails to the forest floor to breed. We saw this one at the BRL "frog pond," on our first night walk. Like other "flying frogs," it's able to parachute by spreading its toes, which are connected by broad membranes that allow it to sail from branch to branch or across gaps in the forest canopy.
- FILE-EARED TREEFROG** (*Polypedates otlophus* (Rhacophoridae)) – These handsome yellowish frogs tend to congregate over water, where they lay their fertilized eggs into a foam mass that will harden on the outside while remaining liquid on the inside, providing the tadpoles a suitable environment until the mass falls into the water below. We saw a pair in amplexus at the BRL "frog pond" and one was still there on our second night walk. A write-in on our checklist was the related Four-lined Treefrog (*Polypedates leucomystax*) (see photo below), which we saw (and photographed) on the railing of the BRL "frog pond" on both our night walks there. [E]
- CRICKET FROG** (*Hylarana nicobariensis* (Ranidae)) – We saw one of these small frogs at the BRL "frog pond" on our first night walk. It belongs to the familiar family Ranidae. Remember the beautifully camouflaged Black-spotted Rock Frog we saw on the wet rocks beside the waterfall above the Jacuzzi Pool? That's a member of the Ranidae that is endemic to Borneo.
- GREEN PADDY FROG** (*Hylarana erythraea* (Ranidae)) – This was the fabulous frog in the petals of the flowering water lily along the RDC trail. Wonder if it eats small bees? It was still in the mostly closed flower the following morn.
- SALTWATER CROCODILE** (*Crocodylus porosus*) – We saw only small ones in the Kinabatangan this trip.

CRESTED GREEN LIZARD (*Bronchocela cristatella*) – This was the brilliant green lizard with the extremely long, thin tail that we saw first from the RDC canopy walkway. It's common and widespread throughout the lowlands of Borneo, and we saw it again several times at BRL. It's in the family Agamidae. Another agamid lizard that we saw well, this one by night at BRL, was the Leaf-nosed Lizard, a.k.a. Ornate Shrub Lizard (*Aphanotis ornata*). Being a diurnal insectivore, it was at roost on a big leaf at BRL during our night walk July 15. It's endemic to Borneo. (See its photo with the skinks below.)

HORNED FLYING LIZARD (*Draco cornutus*) – This was the bright green lizard with spiny scales over the eyes and an orange-tipped, triangular dewlap erected in courtship. We watched a male in courtship at the RDC and then saw it sailing a few times in the lowlands. It's another Sundaland specialty.

FLYING LIZARD SP. (*Draco* sp.) – The flying lizards we watched sailing from one tree to another (and photographed) at Poring Hot Springs were *Draco melanopogon*, Black-bearded Flying Lizards. So well camouflaged are they that they practically disappear when they land on a trunk! We had seen this species with the black dewlap earlier at the RDC and at Sukau. It's another fairly common Sundaland specialty.

BORNEO ANGLE-HEADED LIZARD (*Gonocephalus borneensis*) – This diurnal lizard was sleeping on a low branch along the BRL Nature Trail during our second night walk. It had a blue eye. A small relative of the angle-headed lizards was what we saw on the ground along the Pandanus Trail at Kinabalu—where lizards are quite scarce. It keys to the Sabah Eyebrow Lizard, a.k.a. Bornean Shrub Lizard (*Phoxophrys borneensis*), another Bornean endemic. [E]

SMITH'S GIANT GECKO (*Gekko smithii*) – As split from Tokay Gecko (*G. gecko*), this was the one that we heard so frequently uttering its surprisingly loud calls throughout the lowland forests—including just above the roof of our chalet at BRL. It was AWOL from the spot where we usually see it by night at Sukau Rainforest Lodge, but we did locate one above the dining area. Unfortunately, only a few folks managed to get a look before it retreated into a crack. There were large numbers of smaller Common House Geckos (*Hemidactylus frenatus*) all over the walls of our accommodations. There may have been additional "house geckos" as well, but I couldn't ID any to species.

KUHL'S FLYING GECKO (*Ptychozoon kuhli*) – We identified this cryptic species on our first afternoon at the RDC Trogon Tower; it was spotted right next to the tail of the Red Giant Flying Squirrel. Our most exciting gecko find was called "Barking Banded Gecko." It's also known as Peters' Bent-toed Gecko or Banded Slender-toed Gecko (*Cyrtodactylus consobrinus*). These were the fancy banded and striped geckos we saw on the trunk of the giant buttressed tree between the BRL main building and the Nature Trail on our night walks. They are insectivorous and yet another Sundaland specialty.

COMMON SUN SKINK (*Eutropis multifasciata*) – The Common Sun Skink is indeed common in disturbed habitats, and it's possible we saw one somewhere. But it's a good thing we got photos of several of the skinks we saw, because in going through the photos, I realized there was not a single Common Sun Skink among them. It was a learning experience. We had already identified (with online help) Red-throated Skink (*Mabuya rugifera*), which we saw well our first morning on the grounds of the Sepilok Nature Resort (as well as once again at the RDC). In addition, REW photographed Striped Bornean Tree Skink (*Apterygodon vittatum*) at Sukau on July 10 and Black-banded Skink (*Mabuya rudis*) at BRL, where it is the common skink of undisturbed forest and was seen several times.

WATER MONITOR (*Varanus salvator*) – We saw some big ones, especially in the Kinabatangan, where we saw them along the tributaries in the sun. Also swimming across the lake at the Sepilok Nature Resort.

RETICULATED PYTHON (*Broghammerus reticulatus*) – Found in Sundaland and the Philippines, it's nocturnal and feeds primarily on homeotherms near water; it kills its prey by constriction. Our first one was along the banks of the Menanggul during a night cruise. Then Roger found us a beautiful example in the stream below the bridge on a night walk at BRL.

MANGROVE CAT SNAKE (*Boiga dendrophila*) – We failed to see this species, but we did have great views of its congener, *B. cynodon*, the Dog-toothed Cat Snake, in the eye-level trees along the boardwalk at BRL. It was at night, some halfway down the boardwalk to our farthest rooms. We saw another member of the same family (Colubridae): the Gray-tailed Racer (*Gonyosoma oxycephalum*). This was the long, yellow-green snake with the dark gray tail that was coiled in a tree along the RDC canopy walkway on the afternoon of July 5 (and gone by the time we came back from watching the flying squirrels). It eats rats and squirrels as well as birds.

BRONZEBACK TREE SNAKE (*Dendrelaphis* sp.) – Striped Bronzeback, *D. caudolineatus*, was what Paul ID'd the small snake Mary saw eating a gecko in the garden at BRL on July 12 during our break. It eats small frogs and lizards; it had disappeared by the time we reassembled. Another snake we saw that was not on our checklist is the Keeled Slug-eating Snake, *Pareas carinatus*, which we also saw on night walks at BRL. It does indeed eat molluscs.

Other Creatures of Interest

RAFFLESIA (PORING) (*Rafflesia keithii*) – We made a special trip to Poring to see the flower of this fascinating Bornean endemic, the largest of its genus in Borneo and the second largest flower in the world. An endoparasite, it has no stems, leaves, or true roots, deriving its energy entirely from its host, a woody grapevine in the genus *Tetrastigma* (Vitaceae). We discussed how scientists and the Kinabalu Park staff work with locals to enhance the environmental conditions favorable to this rare flower, namely by making its host vine available for distribution on nearby private lands and encouraging a thriving ecotourism business among locals and travelers alike. It has worked well, almost insuring that we'll encounter an ephemeral *Rafflesia* flower somewhere near Poring on our tour. This July we saw a perfect fresh flower and one on its third day open that was already beginning to decay. We could see swollen buds and old, decomposed flowers as well. A recent study on its congener, *Rafflesia cantleyi*, determined that the parasite was not only absorbing nutrients from its host, but was actually stealing genes! This horizontal gene transfer is a rare phenomenon among organisms more complex than bacteria. *Rafflesia pricei*, the smaller-flowering congener for which the Tambunan *Rafflesia* Center was named, occurs at higher elevations than *R. keithii*. It was only discovered (by an amateur botanist, William Price) in the 1960's. There are no private "gardens" supporting its perpetuation, and flowers are very rarely found; if they are, they are usually a couple of miles down a steep trail, discovered by scouts from the TRC. Thus, it was with astonishment that I responded to Anne's pointing out a real blossom right beside the road: "There's one of those flowers," she said. I said "It can't be real." But it was...and it was one of the highlights of the trip! We reported it to the TRC, who quickly sent folks to measure and photograph it. They told us they would guard it and post to their website that a *R. pricei* was in bloom; interested observers could then go to the TRC to get a tour to see the blossom. It was a lifer I never expected to see. Yip! Yip! Yip! [E]

PITCHER PLANT (MESILAU) (*Nepenthes fusca*) – This species is usually epiphytic in mossy forest, 1200-2500m, but it also grows terrestrially. Our mossy forest was at 1800m on Gg. Alab. I've tentatively ID'd one pitcher as being of this species. Another lovely pitcher was very similar to a lower pitcher of *N. boschiana*, but it should occur on ridges of limestone mountains. [E]

PITCHER PLANT (*Nepenthes tentaculata*) – This species was the commonest along our pitcher plant trail. It has a wide distribution, being known from almost every mountain exceeding 1000m in Borneo. It also occurs in Sulawesi. The all-green pitchers that were common along the trail generally fit those of *N. reinwardtiana*, a species widespread in Borneo, including mossy forest to 2100m. But I couldn't see the two spots on the inner surface of the pitcher which would clinch the ID.

- BROWN LEECH** (*Haemadipsa zuelanica*) – It was an El Nino year--thus drier than usual for July. So it was not a major leech year. Our only leeches were at BRL, where Steve managed to attract most of the ones we encountered!
- TIGER LEECH** (*Haemadipsa picta*) – This species was reported by some in our group, but REW and RAR never saw one this trip.
- BORNEAN PILL MILLIPEDE** (*Glomeris connexa*) – This species feeds on dead leaves and wood in the leaf litter, contributing to decomposition of organic matter and releasing nutrients back into the soil. They curl into a protective ball like a pillbug when disturbed. We saw them at the Sepilok Nature Resort and later at BRL. We saw other, more traditional, millipedes as well.
- LONG-LEGGED CENTIPEDES** (*Scutigera* spp.) – The long-legged critters on the Gomantong cave walls (with all the cave cockroaches) were Scutigerids, and we saw at least one along the BRL Nature Trail on a night walk. They are generally nocturnal, devouring spiders, stick insects, and beetle larvae.
- WHITE LANTERN BUG** (*Pyrops sultana* (Flatidae, Hemiptera)) – Lantern bugs (*Pyrops candelaria*, family Fulgoridae, order Hemiptera) were the fabulous white bugs clustered on a big trunk at Poring Hot Springs. Contrary to the belief of Linnaeus, who described several species, the inflated head process does not light up at night. Lantern bugs are in fact sap suckers, their slender proboscis (below the head process) probing into the sap of certain trees. They excrete excess sugars as droplets that certain ants have become specialized to collect!
- GIANT FOREST ANT** (*Camponotus gigas*) – This species is among the largest of ants worldwide. They are primarily nocturnal, nest underground mostly (though sometimes in the canopy), and feed on dead insects and plant material. They are similar to Neotropical "bullet ants." We saw them at Gomantong and BRL.
- GIANT HONEY BEE** (*Apis dorsata*) – It was fascinating to discover that the giant beehive--in the tall Koompasia, absolutely covered with bees--we had studied our first day at the RDC canopy walkway had been abandoned when we returned July 7! We saw another hive along the BRL entrance road, and it too was in a Koompasia (= Menggaris) tree, which is preferred by the bees for its great height and slick bark, both of which help deter Sun Bears from reaching the honeycombs.
- CHAN'S MEGASTICK** (*Phobaeticus chani*) – We failed to see this species, which was thought until very recently to be the longest stick insect in the world (and was recently surpassed by a newly discovered species in s China). But we did see several other walking sticks (BRL & Poring), praying mantids (BRL & Poring), katydids, cicadas, longhorn beetles, and other fascinating insects that we can't ID to species.
- COMMON BIRDWING** (*Tioides helena* (Papilionidae)) – Among butterflies, this lovely birdwing was one of the commonest. We saw it especially at BRL, but also at Poring.
- RAJAH BROOKE'S BIRDWING** (*Trogonoptera brookiana* (Papilionidae)) – We saw a couple of these big green-and-black beauties at Kinabalu Park.
- COMMON TREE NYMPH (WOOD NYMPH)** (*Idea stollii* (Nymphalidae)) – This was the lovely black-and-white one that floats tissue-paper-like throughout the lowlands (and is replaced by a montane counterpart in the highlands). It was common at Gomantong and BRL.
- CLIPPER BUTTERFLY** (*Parthenos sylvia* (Nymphalidae)) – These pretty Nymphalids were so common in the lowlands that the Blue-throated Bee-eaters were catching them along the Menanggul. We also saw them at Sukau, Gomantong, and BRL.
- LYSSA MOTH** (*Lyssa zampa* (Uraniidae)) – There weren't as many moths as usual this trip, perhaps owing to the El Nino-induced drier weather patterns this year. The big Lyssa moth is usually fairly common, but this trip we recorded it only at the RDC. There were, however, a reasonable number of smaller moths, many with lovely colors and/or elegant patterns. For help with identifying the moths in your photos, see the following website: <http://www.learnaboutbutterflies.com/Malaysia%20thumbs.htm>.

ADDITIONAL COMMENTS

There were, of course, many other fabulous plants and critters not listed on our checklist. Among the plants, we must mention a few:

--the fabulous "anemone stinkhorn" (*Aseroe rubra* or a close relative?) that David showed us along the base of the Silau-Silau trail opposite our lodge. Apparently it's a common and widespread basidiomycete fungus with the foul odor of carrion, which attracts flies that spread its spores.

--the numerous species of ferns, orchids, and the several blooming rhododendrons we saw. There are 500+ species of ferns in Borneo. That's 5% of the world's total--more than in all of Africa! Kinabalu is known as the single richest place in the world for orchids too. There are more than 1200 species on Kinabalu alone! That too is 5% of the world's total. There are around 30 species of rhododendrons on Kinabalu, a dozen of them endemic to the mountain.

--the blooming *Hoya imperialis* that David pointed out along the Menanggul. *Hoya* is in the family Apocynaceae, this species occurring in the Philippines and Malaysia. The genus has become a popular nursery plant, and this species produces some of the largest individual flowers of the *Hoya* group.

--the fabulous dipterocarp seeds--with long white wings--floating down from the canopy at BRL. We had seen some on the ground at the RDC. They weren't exactly masting, but I've only seen more in the air on one trip, and I've never seen the long white ones before. A real treat!

Among the "other critters" not already mentioned, there are a few that deserve inclusion, even without scientific names:

--the black-and-white tarantula that Paul showed us at BRL; and all the other spiders, many with green eyeshine, that we saw throughout the lowlands;

--the black whipscorpion at BRL;

--the wasps that build the horseshoe-shaped colonies under structures at Kinabalu;

--the many fireflies that lit up the lowland rainforest;

--and, best of all, the fabulous caterpillars, from the spiny green-and-blue one to the unbelievable "flying caterpillar" that so startled Mary when it floated down from the canopy, landing on the railing right beside her. The extremely long, fine, curled projections are surely adaptations allowing it to glide from the treetops.

Totals for the tour: 289 bird taxa and 33 mammal taxa