



Sabah, Malaysian Borneo

Deramakot

A working timber forest, and one of the world's great places to watch wild mammals.

Deramakot

A Forest, Its Wildlife, and the Travellers Who Found It

*A short book on one of Sabah's most storied wildlife
reserves.*

CENTRAL SABAH · MALAYSIAN BORNEO

Before You Begin



Tom Cooper

This book moves in two parts. The first tells the story of a working timber forest that became, almost by accident, one of the world's finest places to watch wild mammals after dark. The second is a slower walk through the animals themselves — the mammals, birds and other wildlife that visitors most hope to meet on Deramakot's roads.

None of it replaces a guide. Deramakot is found by ear and by patient spotlighting as much as by knowing where to look, and the people who work its roads carry knowledge no book can hold. What follows is simply an introduction — enough to recognise what you're looking at, and why it matters that it's still there.

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A Forest Ahead of Its Time



Tom Cooper

In 1989, long before "sustainable forestry" was a phrase tourists cared about, the Sabah Forestry Department made a decision that would, decades later, reshape wildlife tourism in Borneo. Working with technical support from the German Agency for Technical Cooperation, the department began developing a management system for Deramakot Forest Reserve built around a simple but, at the time, unusual premise: that a working timber forest could be logged commercially and still function as a healthy ecosystem.

The approach became known as Reduced Impact Logging, or RIL — a method of harvesting timber designed to keep damage to the surrounding forest to a minimum. Only carefully selected trees above a minimum diameter are felled. Fruiting trees, a critical food source for the reserve's mammals and birds, are left standing. Buffer zones are maintained along rivers, watersheds and steep slopes.

Deramakot became the Sabah Forestry Department's flagship — a working demonstration of what steady political support and disciplined management can achieve.

This was not an easy or obvious choice for a state forestry department to make in 1989. It meant slower harvests and a longer road to profitability than conventional logging offered. But it set Deramakot on a trajectory that, a generation later, would make it famous for reasons nobody at the time anticipated.

From Timber to Trust



In 1997, Deramakot became the first natural forest in Southeast Asia to be certified as a "well-managed forest" by the Forest Stewardship Council. No tropical rainforest has held the certification for longer. It lapsed in late 2019 and was regained in 2024.

What followed was not something the department had explicitly set out to achieve, but it followed logically from the method. Researchers working in Deramakot began documenting healthy populations of animals that are usually the first to vanish from logged landscapes — Clouded Leopards, Sun Bears, Orangutans, and a striking diversity of civets — persisting inside an active, licensed timber concession.

Across much of Southeast Asia, "logged forest" and "wildlife-rich forest" were treated as opposites. Deramakot offered quiet evidence that with sufficiently careful management, they did not have to be.

Opening the Gates, 2014



By around 2014, the Sabah Forestry Department began permitting a small number of licensed operators to bring visitors into Deramakot, using the department's own staff accommodation at the base camp as a starting point. It was a modest, cautious opening — nothing like the purpose-built ecotourism infrastructure found in Sabah's national parks.

There were no manicured trails, no visitor centre. Guests stayed in the same staff housing used by forestry personnel and joined slow, deliberate night drives along the reserve's forestry roads — a network of wide, well-kept gravel tracks left behind by decades of careful timber work.

That simplicity turned out to be an asset rather than a limitation. The roads were quiet, wide enough for good sightlines, and ran straight through forest the animals actually use.



The Night Jon Hall Came



By late 2014, reports of Deramakot had begun circulating within a small, tightly networked international community: mammalwatchers, whose travel is built specifically around finding wild mammals. Early accounts described Sun Bears, Banded Palm Civets and Marbled Cats turning up within days.

In May 2015, Jon Hall arrived — founder of mammalwatching.com and widely regarded as the community's most prolific chronicler. He travelled with fellow enthusiasts Tomer Ben-Yehuda and Jean-Michel Bompar, guided through the operator Adventure Alternative Borneo.

Over four nights in May 2015, the group recorded thirty-one mammal species — Binturong and Banded Palm Civet among them.

In a community that relies heavily on shared trip reports to decide where to travel next, that account functioned as an introduction. Deramakot's status as one of the world's premier mammal-watching destinations traces directly back to that period.

Mammalwatching.com has since become the place where Deramakot trip reports are shared, and each new report has added to the reserve's reputation among the people most likely to make the journey.



When Kate Humble Came Looking

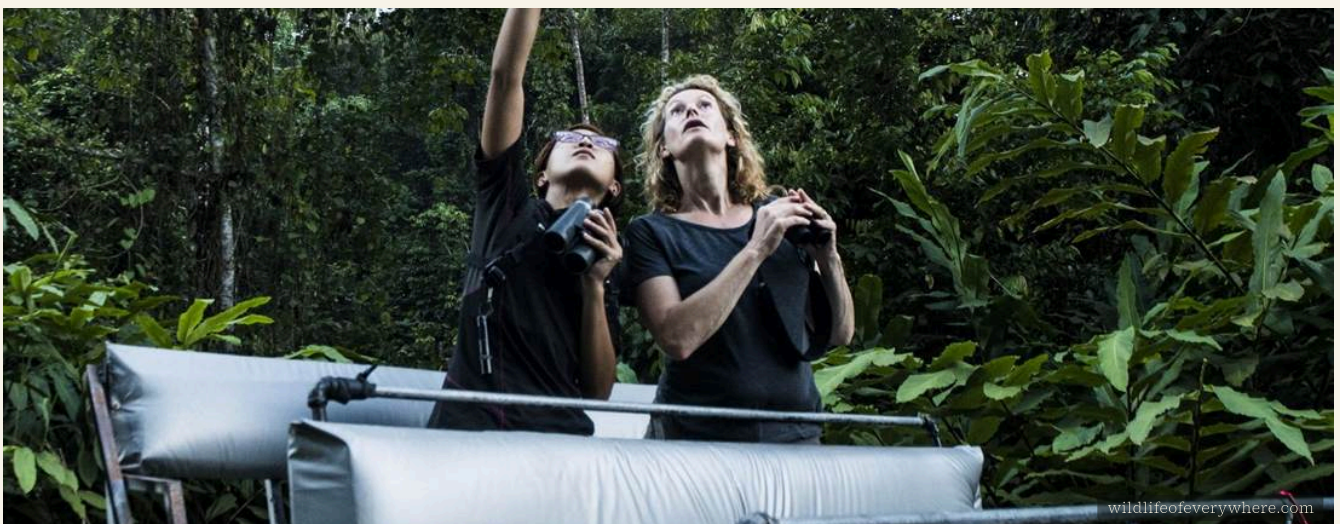


The BBC presenter and naturalist Kate Humble arrived at Deramakot in January 2019 with a more pointed question than most visitors bring: could a forest that still earned its keep as a working timber concession really hold onto the wildlife everyone assumed logging destroyed, or was that just a good story? She spent five days driving the reserve's forest roads to find out.

The animals obliged steadily rather than spectacularly — Slow Lorises, flying squirrels, Leopard Cats, Sun Bears and Bornean Pygmy Elephants, with palm civets and Banded Civets turning up so often she came to think of them as regulars. An Otter Civet, rarer by her own reckoning than the cat everyone comes for, was the trip's real prize.

The Sunda Clouded Leopard eluded her, as it eludes many visitors.

The Clouded Leopard itself never appeared. Humble left anyway believing she had her answer: that a forest can pay its way in timber without being stripped of the wildlife that makes it worth protecting in the first place — a conclusion delivered, fittingly, to the sound of gibbons singing at dawn.



Built on Sleepless Nights



In the years since 2015, Deramakot's reputation has continued to build. Species once treated as a once-in-a-lifetime encounter anywhere in Borneo — Marbled Cat, Sun Bear, Otter Civet, Binturong, the Sunda Clouded Leopard — are today reported with a frequency that would have seemed implausible before the reserve opened to visitors.

The format that made this possible — slow night drives, patient spotlighting, extended multi-night stays rather than single-day visits — has since been adopted, in varying forms, by other Sabah forest reserves seeking to open their own land to wildlife tourism.

A forestry department's 1989 commitment to sustainable timber management has grown, three decades on, into one of the clearest examples in the region of conservation and tourism reinforcing one another.

A Circuit for Specialists



What began with a handful of independent mammalwatchers has, in the years since, become a fixture on the calendars of specialist wildlife travel companies around the world. Some now build whole itineraries around a week at Deramakot, timed to the reserve's spotlighting rhythm rather than a conventional daytime safari.

Small-group departures now run every year, aimed squarely at the reserve's specialist rarities, and the trip reports they leave behind — some logging more than forty-five mammal species in a single visit — have become one of the best running records of what the reserve actually holds.

None of this existed before 2015. That a working timber concession can now draw visitors back year after year is itself a kind of finding — proof, gathered one trip report at a time, that the approach Deramakot adopted in 1989 works.



A forestry road through Deramakot Forest Reserve — the kind of track most night drives follow.

wildlifeofeverywhere.com



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Banded Civet

Hemigalus derbyanus

Endangered · Nocturnal · ground-dwelling

Unmistakable among Deramakot's civets, the Banded Civet carries bold dark bands across a pale cream coat, a pattern that breaks up its outline in the dappled beam of a spotlight. It roots earthworms and invertebrates from the leaf litter with an elongated, mobile snout.

Sightings typically come low to the ground, often crossing the main road or foraging just inside the treeline — moving alone, with a distinctive low, searching gait.

Size

House-cat length, slimmer

Diet

Earthworms, insects, small animals

Active

Night

Where to look

On the ground: road edges and leaf litter



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Malay Civet

Viverra zibetha

Least Concern · Nocturnal · common

The largest and most frequently encountered of Deramakot's terrestrial civets — a heavily built, grey-brown animal marked with dark spots and bands and a strongly ringed tail. A generalist, taking fruit, small vertebrates and invertebrates as available.

Comfortable in disturbed and regenerating forest, it is one of the more dependable sightings on a night drive, usually crossing open road sections at a steady, confident pace.

Size

Larger than a house cat

Diet

Fruit, insects, small animals

Active

Night

Where to look

Crossing the road and along forest edges



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Bornean Striped Palm Civet

Arctogalidia stigmatica

Least Concern · Nocturnal, arboreal · occasional

A slender, fully arboreal civet named for the three faint dark stripes running down its back. Unlike the ground-foraging civets on the previous pages, it rarely descends to the road, instead moving through the mid and upper canopy along tangles of liana and branch.

Sightings are usually a pair of eyeshine high in the canopy, followed by patient tracking to confirm the animal's outline and tail. Largely frugivorous, and often located near fruiting fig trees.

Size

House-cat size, very long tail

Diet

Mostly fruit, especially figs

Active

Night

Where to look

High in fruiting trees

Two More Civets



Otter Civet

Cynogale bennettii · Endangered

One of the rarest and strangest civets in the world, with webbed feet, a broad flat muzzle and dense whiskers, built for hunting fish, crabs and frogs along streams. It is so seldom seen anywhere that a sighting is the highlight of a trip, and Deramakot is one of the very few places where visitors have a realistic chance.

Size

House-cat size, short tail

Diet

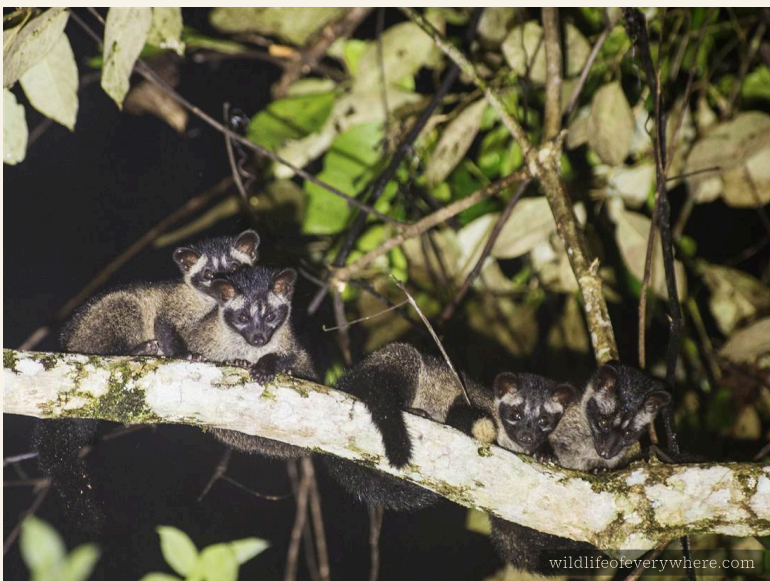
Fish, crabs, frogs

Active

Night

Where to look

Streams and wet gullies by the road



Island Palm Civet

Paradoxurus philippinensis

Often the most frequently seen civet on a night drive: grey-brown with darker legs, faint spots and a pale face mask. It spends much of its time in trees eating fruit, and is regularly found in fruiting trees beside the road, sometimes several together.

Size

House-cat size, long tail

Diet

Fruit, insects

Active

Night

Where to look

Fruiting trees beside the road



Leopard Cat

Prionailurus javanensis

Least Concern · Nocturnal · common

Roughly the size of a domestic cat, with a spotted golden coat, the Leopard Cat is Deramakot's most widespread small felid and often the first cat species a visitor records. It hunts rodents along road edges and regenerating forest patches, habitat that reduced-impact logging leaves in good supply.

Its eyeshine is bright and low to the ground — usually two points of light before the animal's full outline resolves in the beam.

Size

Domestic-cat size

Diet

Rats, frogs, small birds

Active

Night

Where to look

Road verges, low in the beam



Sunda Clouded Leopard

Neofelis diardi

Vulnerable · Mostly nocturnal · rare, increasingly reported

The largest cat in Borneo, and the animal most visitors hope for above all others. Named for the large, irregular cloud-shaped markings across its coat, it is equally at home on the ground and in the canopy, with proportionally the longest canine teeth of any living cat. Despite the name it is not a leopard at all, but a separate, ancient branch of the big-cat family.

Camera-trap surveys run between 2007 and 2023 across Deramakot and its neighbouring reserves identified 52 individual adults and recorded the oldest wild Sunda Clouded Leopard ever documented — a female estimated at roughly eight and a half years old. The same research found females about 68% harder to detect than males, likely because they spend more time away from the roads and trails where cameras are set.

Once considered close to mythical in Bornean forests, it is now recorded here with genuine, if still infrequent, regularity — a shift widely credited to the reserve's well-managed forest and healthy prey base. Fewer than 10,000 mature individuals are thought to remain across Borneo and Sumatra combined.

Size

Large-dog length, tail as long again

Diet

Primates, deer, pigs and other mammals

Active

Mostly night; occasionally seen by day

Where to look

On the roads, or in the trees above them



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Marbled Cat

Pardofelis marmorata

Near Threatened · Day and night, arboreal · uncommon, well recorded

A small, exceptionally beautiful cat with a marbled coat pattern reminiscent of a miniature clouded leopard, and a tail often as long as its body. Highly arboreal, it uses that tail for balance while moving through branches after birds, squirrels and small mammals.

Few sites anywhere in its range offer the sighting frequency now associated with Deramakot, where it has become one of the reserve's calling-card species.

Size

House-cat size, tail as long as its body

Diet

Birds, squirrels, rats

Active

Day and night

Where to look

Mid-canopy branches near the road



wildlifeofeverywhere.com

Yellow-throated Marten

Martes flavigula

Least Concern · Mostly diurnal, arboreal · rarely seen

A long-bodied, glossy member of the weasel family, dark brown with a bright yellow throat and bib and a long black tail. It is as quick on the ground as in the trees, and hunts squirrels, birds and rodents, as well as taking fruit and honey. It is often found in pairs or small family groups.

Despite living across the reserve, the marten is rarely seen at Deramakot. It moves fast and keeps to cover, so most sightings are a few seconds long, a face looking down from a branch or a tail disappearing into the foliage. Treat one as a bonus, never as something to plan on.

Size

Bigger than a house cat,
long tail

Diet

Squirrels, birds, fruit,
honey

Active

Day

Where to look

Crossing the road, or in the
canopy

Bear and Bearcat



Sun Bear

Helarctos malayanus · *Vulnerable*

The smallest of the world's bears, black with a pale muzzle and a cream or orange chest patch that is different on every animal. A strong climber, it tears into trees for honey and termites with long claws and a very long tongue. At Deramakot it turns up on night drives, sometimes high in a tree, sometimes crossing the road.

Size

Smallest bear: 25–65 kg

Diet

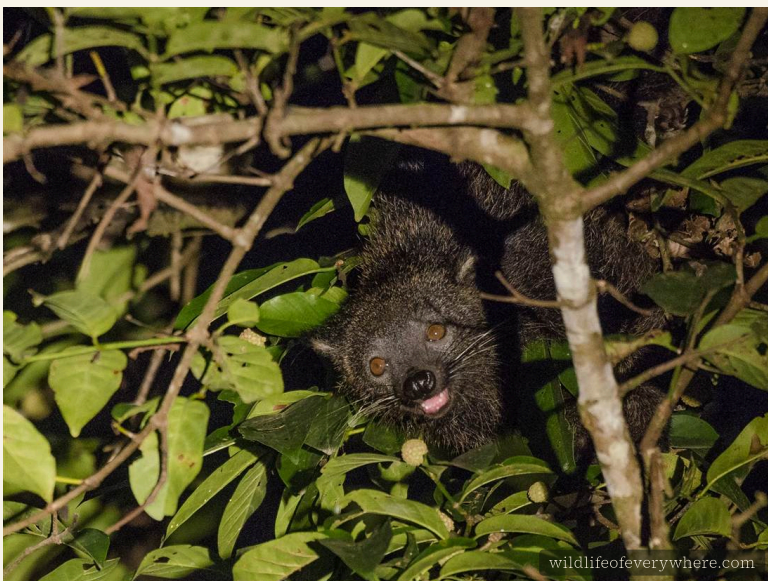
Termites, honey, fruit

Active

Mostly night here

Where to look

Tree trunks, or crossing the road



Binturong

Arctictis binturong · *Vulnerable*

Often called the bearcat, though it is neither: a large, shaggy civet with tufted ears and a thick tail it can grip branches with. It feeds mostly on fruit, figs especially, and moves slowly through the canopy. Spotlighting a fruiting fig at night is the best way to find one, and it often stays put long enough for a good look.

Size

Body up to about 90 cm, tail almost as long

Diet

Mostly figs and other fruit

Active

Mostly night

Where to look

Fruiting figs in the canopy



Mouse-Deer

Tragulus napu & T. kanchil

Least Concern (both) · Nocturnal / crepuscular · very common

Deramakot hosts both the Greater and Lesser Mouse-deer, among the smallest hoofed mammals on Earth, distinguished mainly by size and throat markings — delicate, deer-like animals standing barely knee-high, with slender legs and small tusk-like canines rather than antlers.

Frequently the first mammal of the night, often frozen at the road edge in the beam before bolting for cover — a reliable warm-up before the reserve's rarer specialists appear.

Size

Rabbit to hare size

Diet

Fallen fruit, leaves, shoots

Active

Night and dusk

Where to look

Road edges, frozen in the beam

On the Forest Floor



Bornean Bearded Pig

Sus barbatus · **Vulnerable**

A tall, lean wild pig with a long head and a bushy pale beard along the snout. It roams widely for fallen fruit, seeds and roots, and in big fruiting years groups can travel long distances following the food. In 2021 African swine fever reached Sabah and killed very large numbers of Bearded Pigs across the state. They are now coming back at Deramakot, and family parties are again being seen along the roads.

Size

Big males over 100 kg

Active

Day and night

Diet

Fallen fruit, seeds, roots

Where to look

Along the roads and forest edges



Malayan Porcupine

Hystrix brachyura · **Least Concern**

A large, ground-dwelling rodent armed with long black-and-white quills, which it raises and rattles when threatened. It forages at night for roots, fallen fruit and bark, and spends the day in a burrow. Night drives sometimes find one walking along or crossing the road.

Size

Body about 60–70 cm

Active

Night

Diet

Roots, fallen fruit, bark

Where to look

Walking along the road



Bornean Orangutan

Pongo pygmaeus

Critically Endangered · Diurnal · regular

Deramakot's continued support of a healthy Orangutan population is one of the strongest arguments for the reduced-impact logging approach the reserve pioneered. A study modelling the reserve's management — "The Opportunity Cost of Engaging in Reduced-Impact Logging to Conserve the Orangutan" — found Deramakot held the highest Orangutan densities recorded among the Sabah forests compared, evidence that adequate regrowth periods between harvests and the deliberate retention of key food trees can outweigh the disturbance of controlled logging.

Sightings here are a daytime activity — a distant rustle of canopy resolving into a red-brown shape moving deliberately through the branches, or a fresh sleeping platform spotted from the road at dawn.

Size

Big males up to around 80 kg

Diet

Fruit, young leaves, bark

Active

Day

Where to look

Fruiting trees; nests seen from the road



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Bornean Pygmy Elephant

Elephas maximus borneensis

Endangered · Diurnal / crepuscular · occasional, unmistakable

The smallest and, by most accounts, gentlest subspecies of Asian elephant, found nowhere else in the world outside Borneo's northeast. Genetic studies suggest the population has been isolated long enough to be considered a distinct evolutionary lineage rather than a simple regional variant, with proportionally larger ears, a straighter tusk and a famously placid temperament compared to mainland relatives.

Deramakot sits within the wider Kinabatangan–Sabah landscape the population moves through, and herds move through the reserve rather than living there year-round. When they do, a sighting is hard to miss: browsed vegetation and fresh dung along the road often give notice before the animals themselves appear, usually as a loose family herd feeding unhurried at the treeline.



wildlifeeverywhere.com



Maroon Langur

Presbytis rubicunda

Vulnerable · Diurnal · common

A striking, deep russet-red leaf monkey endemic to Borneo, typically encountered in small family troops moving through the mid-canopy on morning foraging rounds. Almost entirely folivorous, favouring young leaves and shoots.

Its habituation to vehicle traffic along Deramakot's main road makes it one of the more approachable primates in the reserve for daytime photography.

Size

Small-dog size, long tail

Diet

Young leaves, seeds

Active

Day

Where to look

Mid-canopy along the roads



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Southern Pig-tailed Macaque

Macaca nemestrina

Endangered · Diurnal · common

Named for its short, upward-curved tail, this robust macaque moves through Deramakot in large, active troops, foraging on the ground and in the lower canopy for fruit, seeds and invertebrates.

Troops can number several dozen individuals, their movement often first announced by falling fruit husks and rustling understorey before any animal is visible.

Size

Medium-sized monkey, short tail

Diet

Fruit, seeds, insects

Active

Day

Where to look

On the ground and in low trees near the road

Two More Primates



Philippine Slow Loris

Nycticebus menagensis · *Vulnerable*

A small, round-eyed primate in thick golden fur that climbs with slow, deliberate hand-over-hand grips. It feeds at night on insects, fruit and plant gum, and is one of the few venomous mammals: glands on its upper arms produce a toxin it mixes with saliva. Its bright orange eyeshine is one of the easier things to pick out on a night drive.



Bornean Gibbon

Hylobates funereus · *Endangered*

Heard far more often than seen. Gibbon families sing loud, rising songs at dawn that carry for kilometres across the forest, one of the best sounds of an early morning at Deramakot. They travel through the canopy by swinging arm over arm, and each small family group holds its own territory.

Squirrels of the Canopy



Sunda Giant Squirrel

Ratufa affinis

A big, bushy-tailed squirrel with cream underparts, a rusty head and a long banded tail. It is common at Deramakot and often seen by day, leaping from crown to crown with its tail streaming behind. The tail steadies the squirrel in the air and on thin branches.



Red Giant Flying Squirrel

Petaurista petaurista

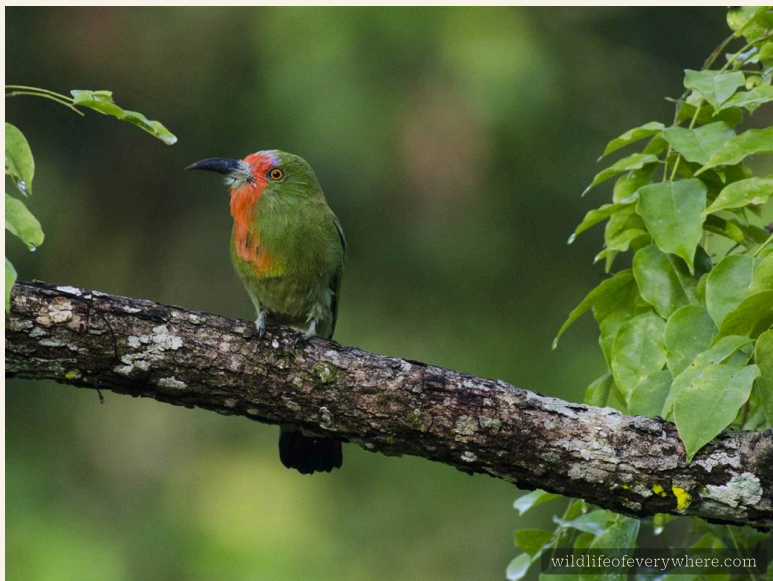
A large nocturnal squirrel in rich chestnut fur, with a loose skin membrane between its front and back legs that turns it into a glider. It launches from the canopy and glides a long way to another trunk. Common on the night drives, and usually found by the glow of its eyes in the spotlight.



Night falls at the forest headquarters, and the evening drive is about to begin.

wildlifeofeverywhere.com

Birds Around Camp



Red-bearded Bee-eater

Nyctyornis amictus

A heavy-set, forest bee-eater, green-bodied with a shaggy crimson throat. Unlike the open-country bee-eaters it sits quietly, sallying out for large flying insects. At Deramakot it is seen around the accommodation most days, so you rarely need to go looking for it.



Crested Serpent Eagle

Spilornis cheela

Deramakot's most conspicuous resident raptor, and there is nearly always one somewhere around the reception centre, perched on a branch or calling overhead with its far-carrying, ringing cry. A specialist hunter of snakes and other reptiles.

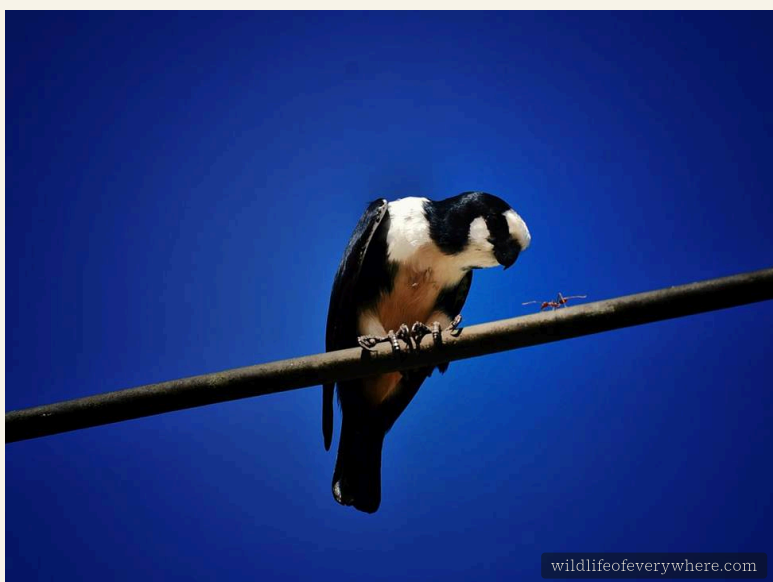
Two More to Look For



Blyth's Paradise-flycatcher

Terpsiphone affinis

A striking flycatcher: adult males trail long white tail streamers and carry a glossy blue-black crest. It often poses well while you drive the roads, making it one of the easiest of the reserve's special birds to watch from the vehicle.



White-fronted Falconet

Microhierax latifrons

Found only in northern Borneo, and one of the smallest birds of prey in the world, black and white with a chestnut belly. It hunts large insects from an exposed perch, and this one is eyeing a weaver ant. Look for it on bare, open branches and wires, where its tiny size is easy to miss.

Two Borneo Icons



Rhinoceros Hornbill

Buceros rhinoceros · Vulnerable

Borneo's best-known bird, with a huge upturned orange-and-red casque on top of its bill. Pairs cross the canopy with loud, whooshing wingbeats, and their honking calls carry a long way. It depends on big old trees: the female seals herself into a tree hole to nest, and the male feeds her through a narrow slit.



Bornean Bristlehead

Pityriasis gymnocephala · Near Threatened

Found nowhere but Borneo, and one of the birds visiting birders most want to see: a chunky black bird with a red head and a crown of short, bristly feathers. It moves through the canopy in small noisy groups, often with other species, and its calls are usually the first clue. Tall lowland forest like Deramakot's is the place to look.

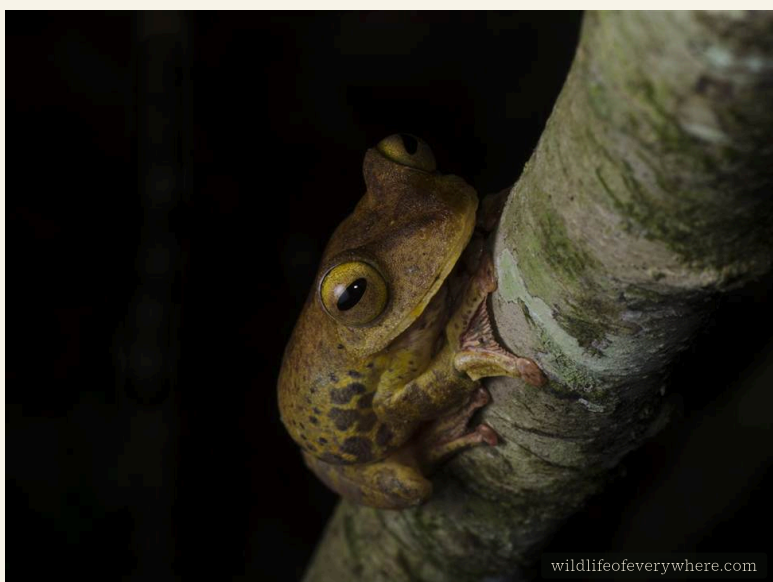
Frogs After Dark



Wallace's Flying Frog

Rhacophorus nigropalmatus

A large, bright green tree frog with dramatically enlarged, fully webbed feet that allow it to glide between trees. First documented by Alfred Russel Wallace during his own Bornean travels, it remains a favourite target for night walks, usually found on low vegetation near still water.



Harlequin Tree Frog

Rhacophorus pardalis

Another gliding frog, with big webbed feet and enormous eyes. Its colour ranges from greens to browns, with darker blotches along the flanks. Found at night on low branches and vegetation, usually not far from water.

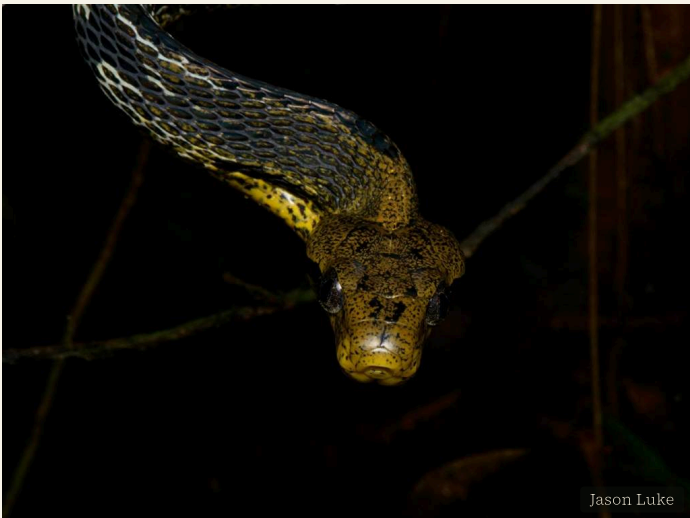
Snakes in the Spotlight



Green Vine Snake

Ahaetulla prasina

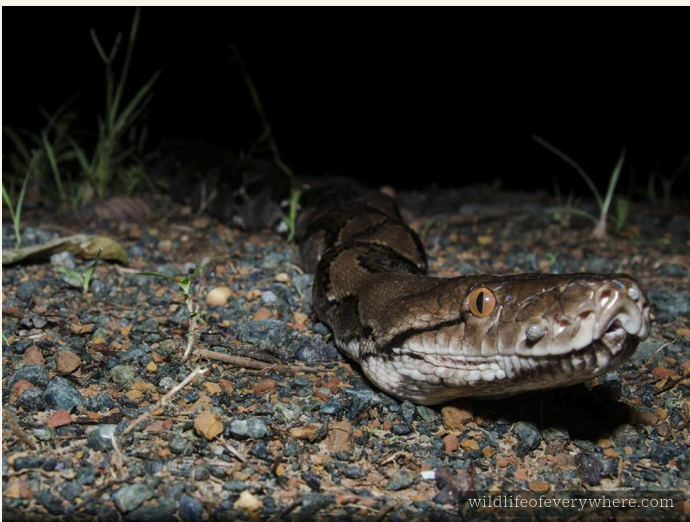
Thin as a pencil and almost invisible among leaves and vines, with a long pointed snout and a keyhole-shaped pupil. It sways like a tendril in the breeze and takes lizards and frogs. Mildly venomous, but not dangerous to people.



Dog-toothed Cat Snake

Boiga cynodon

A slender, night-active tree snake with big eyes and enlarged front teeth. By day it sleeps coiled in foliage; after dark it hunts birds, lizards and small mammals. Mildly venomous, and seen on night drives where the road runs under overhanging trees.



Reticulated Python

Malayopython reticulatus

One of the longest snakes in the world, patterned with an intricate net-like camouflage that gives the species its name. Found both on the forest floor and along the road edge, and occasionally swimming across the reserve's waterways.

Planning Your Visit

Getting There

Fly into Sandakan (SDK), then drive about two hours to the town of Telupid. Guests are met at Telupid at 2pm and taken into the reserve by 4WD, a further two to three hours. A private transfer from Sandakan can be arranged.

Accommodation

Guests stay at the forest headquarters in clean chalet-style rooms with air conditioning and hot water. A resident cook provides three meals a day, and dietary needs can be met with notice. Power is by generator, and wifi and phone signal are now available.

How Long to Stay

Two nights gives a first taste. Three to four nights gives a much better chance of the rarer species, and dedicated mammal watchers often stay a week.

Night Drives

Most visitors join an evening drive of two to four hours, spotlighting from an open vehicle. On specialist mammal-watching trips a night drive can run for seven to ten hours, through the small hours when several of the scarcer species are moving.

What to Bring

A head torch, binoculars, a light rain jacket, leech socks and a power bank for the occasional generator outage.

Night Drive Etiquette

- Keep voices low and movements slow once an animal is spotted.
- Leave the spotlight to your guide, and don't hold the beam on an animal longer than needed.
- Multi-night stays substantially improve the odds for the reserve's rarer species.

Field Checklist

620 species of lowland Sabah, grouped by family. Tick what you see, on the page or on a printed copy. Most are found across Sabah's lowland forests, and not every species here has been recorded in Deramakot itself.

MAMMALS

178 species

Primates

- ☐ Bornean Orangutan *Pongo pygmaeus*
- ☐ Proboscis Monkey *Nasalis larvatus*
- ☐ Silvered Langur *Trachypithecus cristatus*
- ☐ Red Leaf Monkey (Maroon Langur) *Presbytis rubicunda*
- ☐ Long-tailed Macaque *Macaca fascicularis*
- ☐ Southern Pig-tailed Macaque *Macaca nemestrina*
- ☐ Bornean Gibbon *Hylobates funereus*
- ☐ Western Tarsier *Cephalopachus bancanus*
- ☐ Philippine Slow Loris *Nycticebus menagensis*
- ☐ Sabah Grey Langur *Presbytis sabana*

Carnivores

- ☐ Sunda Clouded Leopard *Neofelis diardi*
- ☐ Bornean Bay Cat *Catopuma badia*
- ☐ Leopard Cat *Prionailurus javanensis*
- ☐ Marbled Cat *Pardofelis marmorata*
- ☐ Flat-headed Cat *Prionailurus planiceps*
- ☐ Sun Bear *Helarctos malayanus*
- ☐ Malay Civet *Viverra zangluna*
- ☐ Island Palm Civet *Paradoxurus philippinensis*
- ☐ Masked Palm Civet *Paguma larvata*
- ☐ Bornean Striped Palm Civet *Arctogalidia stigmatica*
- ☐ Banded Palm Civet *Hemigalus derbyanus*
- ☐ Otter Civet *Cynogale bennettii*
- ☐ Binturong *Arctictis binturong*
- ☐ Malay Weasel *Mustela nudipes*
- ☐ Yellow-throated Marten *Martes flavigula*
- ☐ Hairy-nosed Otter *Lutra sumatrana*
- ☐ Smooth-coated Otter *Lutrogale perspicillata*
- ☐ Oriental Small-clawed Otter *Aonyx cinereus*
- ☐ Sunda Stink Badger *Mydaus javanensis*
- ☐ Banded Linsang *Prionodon linsang*
- ☐ Short-tailed Mongoose *Herpestes brachyurus*
- ☐ Collared Mongoose *Herpestes semitorquatus*

Ungulates & Megafauna

- ☐ Bornean Elephant *Elephas maximus borneensis*
- ☐ Bornean Bearded Pig *Sus barbatus*
- ☐ Sambar Deer *Rusa unicolor*
- ☐ Red Muntjac *Muntiacus muntjak*
- ☐ Bornean Yellow Muntjac *Muntiacus atherodes*
- ☐ Greater Mouse-deer *Tragulius napu*
- ☐ Lesser Mouse-deer *Tragulius kanchil*
- ☐ Banteng *Bos javanicus*

Pangolin & Colugo

- ☐ Sunda Pangolin *Manis javanica*
- ☐ Sunda Colugo (Flying Lemur) *Galeopterus variegatus*

Squirrels

- ☐ Sunda Giant Squirrel *Ratufa affinis*
- ☐ Prevost's Squirrel *Callosciurus prevostii*
- ☐ Plantain Squirrel *Callosciurus notatus*
- ☐ Black-banded Squirrel *Callosciurus nigrovittatus*
- ☐ Low's Squirrel *Sundasciurus lowii*
- ☐ Horse-tailed Squirrel *Sundasciurus hippurus*
- ☐ Tufted Ground Squirrel *Rheithrosciurus macrotis*
- ☐ Red Giant Flying Squirrel *Petaurista petaurista*
- ☐ Black Flying Squirrel *Aeromys tephromelas*
- ☐ Ear-spot Squirrel *Callosciurus adamsi*
- ☐ Slender Squirrel *Sundasciurus tenuis*
- ☐ Jentink's Squirrel *Sundasciurus jentinki*
- ☐ Three-striped Ground Squirrel *Lariscus insignis*
- ☐ Four-striped Ground Squirrel *Lariscus hosei*
- ☐ Brooke's Squirrel *Sundasciurus brookei*
- ☐ Least Pygmy Squirrel *Exilisciurus exilis*
- ☐ Shrew-faced Squirrel *Rhinosciurus laticaudatus*
- ☐ Hose's Pygmy Flying Squirrel *Petaurillus hosei*
- ☐ Lesser Pygmy Flying Squirrel *Petaurillus emiliae*
- ☐ Thomas' Flying Squirrel *Aeromys thomasi*
- ☐ Horsfield's Flying Squirrel *Iomys horsfieldii*
- ☐ Grey-cheeked Flying Squirrel *Hylopetes lepidus*
- ☐ Hagen's Flying Squirrel *Petinomys hageni*
- ☐ Whiskered Flying Squirrel *Petinomys genibarbis*
- ☐ Vordermann's Flying Squirrel *Petinomys vordermanni*
- ☐ Temminck's Flying Squirrel *Petinomys setosus*
- ☐ Red-cheeked Flying Squirrel *Hylopetes spadiceus*
- ☐ Smoky Flying Squirrel *Pteromyscus pulverulentus*
- ☐ Spotted Giant Flying Squirrel *Petaurista elegans*

Treeshrews

- ☐ Common Treeshrew *Tupaia glis*
- ☐ Lesser Treeshrew *Tupaia minor*
- ☐ Large Treeshrew *Tupaia tana*
- ☐ Pen-tailed Treeshrew *Ptilocercus lowii*
- ☐ Slender Treeshrew *Tupaia gracilis*
- ☐ Striped Treeshrew *Tupaia dorsalis*

Shrews & Moonrats

- ☐ Moonrat *Echinosorex gymnura*
- ☐ Asian House Shrew *Suncus murinus*
- ☐ Pygmy White-toothed Shrew *Suncus etruscus*
- ☐ Sunda Shrew *Crocidura monticola*
- ☐ South Eastern White-toothed Shrew *Crocidura fuliginosa*

Rats, Mice & Porcupines

- ☐ Long-tailed Giant Rat *Leopoldamys sabanus*
- ☐ Malaysian Field Rat *Rattus tiomanicus*
- ☐ Malayan Porcupine *Hystrix brachyura*
- ☐ Thick-spined Porcupine *Hystrix crassispinis*
- ☐ Black Rat *Rattus rattus*
- ☐ Ricefield Rat *Rattus argentiventer*
- ☐ Polynesian Rat *Rattus exulans*
- ☐ Brown Rat *Rattus norvegicus*
- ☐ Muller's Giant Sunda Rat *Sundamys muelleri*
- ☐ Dark-tailed Tree Rat *Niviventer cremoriventer*
- ☐ Rajah Spiny Rat *Maxomys rajah*
- ☐ Red Spiny Rat *Maxomys surifer*
- ☐ Chestnut-bellied Spiny Rat *Maxomys ochraceiventer*
- ☐ Small Spiny Rat *Maxomys baeodon*
- ☐ Whitehead's Spiny Rat *Maxomys whiteheadi*
- ☐ Grey Tree Rat *Lenothrix canus*
- ☐ Asian House Mouse *Mus castaneus*
- ☐ Indomalayan Pencil-tailed Tree Mouse *Chiropodomys gliroides*
- ☐ Large Pencil-tailed Tree Mouse *Chiropodomys major*
- ☐ Ranee Mouse *Haeromys margarettae*
- ☐ Long-tailed Porcupine *Trichys fasciculata*

Bats

- ☐ Large Flying Fox *Pteropus vampyrus*
- ☐ Island Flying Fox *Pteropus hypomelanus*
- ☐ Cave Nectar Bat *Eonycteris spelaea*
- ☐ Lesser Short-nosed Fruit Bat *Cynopterus brachyotis*
- ☐ Diadem Roundleaf Bat *Hipposideros diadema*
- ☐ Wrinkle-lipped Free-tailed Bat *Chaerephon plicatus*
- ☐ Geoffroy's Rousette *Rousettus amplexicaudatus*
- ☐ Bare-backed Rousette *Rousettus spinalatus*
- ☐ Horsfield's Fruit Bat *Cynopterus horsfieldii*
- ☐ Dusky Fruit Bat *Penthetor lucasi*
- ☐ Tailless Fruit Bat *Megaerops ecaudatus*
- ☐ Spot-winged Fruit Bat *Balionycteris maculata*
- ☐ Greater Nectar Bat *Eonycteris major*
- ☐ Long-tongued Nectar Bat *Macroglossus minimus*
- ☐ Small Asian Sheath-tailed Bat *Emballonura alecto*
- ☐ Lesser Sheath-tailed Bat *Emballonura monticola*
- ☐ Black-bearded Tomb Bat *Taphozous melanopogon*
- ☐ Long-winged Tomb Bat *Taphozous longimanus*
- ☐ Lesser False Vampire Bat *Megaderma spasma*
- ☐ Malayan Slit-faced Bat *Nycteris tragata*
- ☐ Bornean Horseshoe Bat *Rhinolophus borneensis*
- ☐ Acuminate Horseshoe Bat *Rhinolophus acuminatus*
- ☐ Creagh's Horseshoe Bat *Rhinolophus creaghi*
- ☐ Large-eared Horseshoe Bat *Rhinolophus philippinensis*
- ☐ Trefoil Horseshoe Bat *Rhinolophus trifolius*
- ☐ Lesser Woolly Horseshoe Bat *Rhinolophus sedulus*
- ☐ Dusky Leaf-nosed Bat *Hipposideros ater*
- ☐ Bicoloured Roundleaf Bat *Hipposideros bicolor*
- ☐ Ashy Roundleaf Bat *Hipposideros cineraceus*
- ☐ Dayak Roundleaf Bat *Hipposideros dyacorum*
- ☐ Borneo Roundleaf Bat *Hipposideros doriae*
- ☐ Ridley's Leaf-nosed Bat *Hipposideros ridleyi*
- ☐ Fawn Leaf-nosed Bat *Hipposideros cervinus*
- ☐ Cantor's Roundleaf Bat *Hipposideros galeritus*
- ☐ Wall Roosting Mouse-eared Bat *Myotis muricola*
- ☐ Peters's Myotis *Myotis ater*
- ☐ Burmese Whiskered Bat *Myotis montivagus*

Bats (continued)

- ☐ Ridley's Bat *Myotis ridleyi*
- ☐ Horsfield's Bat *Myotis horsfieldii*
- ☐ Lesser Large-footed Bat *Myotis hasseltii*
- ☐ Java Pipistrelle *Pipistrellus javanicus*
- ☐ Least Pipistrelle *Pipistrellus tenuis*
- ☐ Kelaart's Pipistrelle *Pipistrellus ceylonicus*
- ☐ Red-brown Pipistrelle *Hypsugo kitcheneri*
- ☐ Peters's Pipistrelle *Falsistrellus petersi*
- ☐ Brown Pipistrelle *Hypsugo imbricatus*
- ☐ Big-eared Pipistrelle *Hypsugo macrotis*
- ☐ Common Thick-thumbed Bat *Glischropus tylopus*
- ☐ Rohu's Bat *Philetor brachypterus*
- ☐ False Serotine Bat *Hesperoptenus doriae*
- ☐ Blanford's Bat *Hesperoptenus blanfordi*
- ☐ Large False Bat *Hesperoptenus tomesi*
- ☐ Greater Bamboo Bat *Tylonycteris robustula*
- ☐ Lesser Bamboo Bat *Tylonycteris pachypus*
- ☐ Lesser Asiatic Yellow Bat *Scotophilus kuhlii*
- ☐ Round-eared Tube-nosed Bat *Murina cyclotis*
- ☐ Bronze Tube-nosed Bat *Murina aenea*
- ☐ Gilded Tube-nosed Bat *Murina rozendaali*
- ☐ Brown Tube-nosed Bat *Murina suilla*
- ☐ Papillose Woolly Bat *Kerivoula papillosa*
- ☐ Hardwicke's Woolly Bat *Kerivoula hardwickii*
- ☐ Clear-winged Woolly Bat *Kerivoula pellucida*
- ☐ Small Woolly Bat *Kerivoula intermedia*
- ☐ Least Woolly Bat *Kerivoula minuta*
- ☐ Whitehead's Woolly Bat *Kerivoula whiteheadi*
- ☐ Lenis Woolly Bat *Kerivoula lenis*
- ☐ Peters's Trumpet-eared Bat *Phoniscus jagorii*
- ☐ Groove-toothed Bat *Phoniscus atrox*
- ☐ Western Bent-winged Bat *Miniopterus magnater*
- ☐ Common Bent-winged Bat *Miniopterus schreibersii*
- ☐ Small Bent-winged Bat *Miniopterus pusillus*
- ☐ Intermediate Long-fingered Bat *Miniopterus medius*
- ☐ Little Bent-winged Bat *Miniopterus australis*
- ☐ Naked Bat *Cheiromeles torquatus*
- ☐ Malayan Free-tailed Bat *Mops mops*

BIRDS

196 species

Pheasants & Partridges

- ☐ Great Argus *Argusianus argus*
- ☐ Crested Fireback *Lophura ignita*
- ☐ Crestless Fireback *Lophura erythrophthalma*
- ☐ Red Junglefowl *Gallus gallus*
- ☐ Crested Partridge *Rollulus rouloul*
- ☐ Chestnut-necklaced Partridge *Arborophila charltonii*
- ☐ Bornean Peacock-Pheasant *Polyplectron schleiermacheri*
- ☐ Bulwer's Pheasant *Lophura bulweri*

Hérons, Storks & Bitterns

- ☐ Storm's Stork *Ciconia stormi*
- ☐ Lesser Adjutant *Leptoptilos javanicus*
- ☐ Purple Heron *Ardea purpurea*
- ☐ Great-billed Heron *Ardea sumatrana*
- ☐ Striated Heron *Butorides striata*
- ☐ Yellow Bittern *Ixobrychus sinensis*
- ☐ Black Bittern *Ixobrychus flavicollis*

Raptors

- ☐ Wallace's Hawk-Eagle *Nisaetus nanus*
- ☐ Blyth's Hawk-Eagle *Nisaetus alboniger*
- ☐ Crested Serpent Eagle *Spilornis cheela*
- ☐ White-bellied Sea Eagle *Haliaeetus leucogaster*
- ☐ Lesser Fish Eagle *Ichthyophaga humilis*
- ☐ Grey-headed Fish Eagle *Ichthyophaga ichthyaetus*
- ☐ Rufous-bellied Eagle *Lophotriorchis kienerii*
- ☐ Bat Hawk *Macheiramphus alcinus*
- ☐ Jerdon's Baza *Aviceda jerdoni*
- ☐ Black Baza *Aviceda leuphotes*
- ☐ Crested Goshawk *Accipiter trivirgatus*
- ☐ Besra *Accipiter virgatus*
- ☐ White-fronted Falconet *Microhierax latifrons*
- ☐ Changeable Hawk-Eagle *Nisaetus cirrhatu*s
- ☐ Black Eagle *Ictinaetus malayensis*

Rails

- ☐ Slaty-breasted Rail *Lewinia striata*
- ☐ White-breasted Waterhen *Amaurornis phoenicurus*

Pigeons & Doves

- ☐ Green Imperial Pigeon *Ducula aenea*
- ☐ Jambu Fruit Dove *Ramphiculus jambu*
- ☐ Little Green Pigeon *Treron olax*
- ☐ Cinnamon-headed Green Pigeon *Treron fulvicollis*
- ☐ Thick-billed Green Pigeon *Treron curvirostra*
- ☐ Pink-necked Green Pigeon *Treron vernans*
- ☐ Emerald Dove *Chalcophaps indica*
- ☐ Zebra Dove *Geopelia striata*
- ☐ Spotted Dove *Spilopelia chinensis*
- ☐ Large Green Pigeon *Treron capellei*

Parrots & Parakeets

- ☐ Blue-crowned Hanging-Parrot *Loriculus galgulus*
- ☐ Blue-rumped Parrot *Psittinus cyanurus*
- ☐ Long-tailed Parakeet *Psittacula longicauda*

Cuckoos & Malkohas

- ☐ Chestnut-breasted Malkoha *Phaenicophaeus curvirostris*
- ☐ Raffles's Malkoha *Rhinorhiza chlorophaea*
- ☐ Red-billed Malkoha *Zanclostomus javanicus*
- ☐ Black-bellied Malkoha *Phaenicophaeus diardi*
- ☐ Chestnut-bellied Malkoha *Phaenicophaeus sumatranus*
- ☐ Green-billed Malkoha *Phaenicophaeus tristis*
- ☐ Greater Coucal *Centropus sinensis*
- ☐ Lesser Coucal *Centropus bengalensis*
- ☐ Violet Cuckoo *Chrysococcyx xanthorhynchus*
- ☐ Banded Bay Cuckoo *Cacomantis sonneratii*
- ☐ Square-tailed Drongo-Cuckoo *Surniculus lugubris*
- ☐ Asian Emerald Cuckoo *Chrysococcyx maculatus*
- ☐ Bornean Ground-Cuckoo *Carpococcyx radiatus*

Owls, Nightjars & Frogmouths

- ☐ Buffy Fish Owl *Ketupa ketupu*
- ☐ Barred Eagle-Owl *Bubo sumatranus*
- ☐ Brown Wood Owl *Strix leptogrammica*
- ☐ Oriental Bay Owl *Phodilus badius*
- ☐ Sunda Scops Owl *Otus lempiji*
- ☐ Reddish Scops Owl *Otus rufescens*
- ☐ Large Frogmouth *Batrachostomus auritus*

Owls, Nightjars & Frogmouths (continued)

- ☐ Dulit Frogmouth *Batrachostomus harterti*
- ☐ Gould's Frogmouth *Batrachostomus stellatus*
- ☐ Sunda Frogmouth *Batrachostomus cornutus*
- ☐ Large-tailed Nightjar *Caprimulgus macrurus*
- ☐ Malaysian Eared Nightjar *Eurostopodus temminckii*
- ☐ Blyth's Frogmouth *Batrachostomus affinis*
- ☐ Bonaparte's Nightjar *Caprimulgus concretus*

Swifts & Treeswifts

- ☐ Glossy Swiftlet *Collocalia esculenta*
- ☐ Edible-nest Swiftlet *Aerodramus fuciphagus*
- ☐ Black-nest Swiftlet *Aerodramus maximus*
- ☐ Silver-rumped Needletail *Rhaphidura leucopygialis*
- ☐ Brown-backed Needletail *Hirundapus giganteus*
- ☐ Whiskered Treeswift *Hemiprocne comata*
- ☐ Grey-rumped Treeswift *Hemiprocne longipennis*
- ☐ Mossy-nest Swiftlet *Aerodramus salangana*

Trogons

- ☐ Diard's Trogon *Harpactes diardii*
- ☐ Red-naped Trogon *Harpactes kasumba*
- ☐ Scarlet-rumped Trogon *Harpactes duvaucelii*
- ☐ Cinnamon-rumped Trogon *Harpactes orrhophaeus*
- ☐ Orange-breasted Trogon *Harpactes oreskios*

Kingfishers, Bee-eaters & Rollers

- ☐ Oriental Dwarf Kingfisher *Ceyx erithacus*
- ☐ Rufous-collared Kingfisher *Actenoides concretus*
- ☐ Banded Kingfisher *Lacedo pulchella*
- ☐ Stork-billed Kingfisher *Pelargopsis capensis*
- ☐ Ruddy Kingfisher *Halcyon coromanda*
- ☐ White-throated Kingfisher *Halcyon smyrnensis*
- ☐ Collared Kingfisher *Todiramphus chloris*
- ☐ Blue-eared Kingfisher *Alcedo meninting*
- ☐ Blue-banded Kingfisher *Alcedo euryzona*
- ☐ Blue-throated Bee-eater *Merops viridis*
- ☐ Red-bearded Bee-eater *Nyctyornis amictus*
- ☐ Dollarbird *Eurystomus orientalis*

Hornbills

- ☐ Rhinoceros Hornbill *Buceros rhinoceros*
- ☐ Helmeted Hornbill *Rhinoplax vigil*
- ☐ Bushy-crested Hornbill *Anorrhinus galeritus*
- ☐ Wrinkled Hornbill *Rhabdotorrhinus corrugatus*
- ☐ White-crowned Hornbill *Berenicornis comatus*
- ☐ Black Hornbill *Anthracoceros malayanus*
- ☐ Oriental Pied Hornbill *Anthracoceros albirostris*
- ☐ Wreathed Hornbill *Rhyticeros undulatus*

Barbets & Woodpeckers

- ☐ Red-crowned Barbet *Psilopogon rafflesii*
- ☐ Golden-naped Barbet *Psilopogon pulcherrimus*
- ☐ Yellow-crowned Barbet *Psilopogon henricii*
- ☐ Gold-whiskered Barbet *Psilopogon chrysopsis*
- ☐ Red-throated Barbet *Psilopogon mystacophanus*
- ☐ Blue-eared Barbet *Psilopogon duvaucelii*
- ☐ Brown Barbet *Caloramphus fuliginosus*
- ☐ Great Slaty Woodpecker *Mulleripicus pulverulentus*
- ☐ Buff-necked Woodpecker *Meiglyptes tukki*
- ☐ Buff-rumped Woodpecker *Meiglyptes tristis*

Barbets & Woodpeckers (*continued*)

- ☐ Orange-backed Woodpecker *Chrysocolaptes validus*
- ☐ Maroon Woodpecker *Blythipicus rubiginosus*
- ☐ Rufous Woodpecker *Micropternus brachyurus*
- ☐ Checker-throated Woodpecker *Chrysophlegma mentale*
- ☐ Banded Woodpecker *Chrysophlegma miniaceum*
- ☐ Crimson-winged Woodpecker *Picus puniceus*
- ☐ White-bellied Woodpecker *Dryocopus javensis*
- ☐ Rufous Piculet *Sasia abnormis*
- ☐ Malaysian Honeyguide *Indicator archipelagicus*

Broadbills & Pittas

- ☐ Black-and-red Broadbill *Cymbirhynchus macrorhynchos*
- ☐ Banded Broadbill *Eurylaimus javanicus*
- ☐ Black-and-yellow Broadbill *Eurylaimus ochromalus*
- ☐ Green Broadbill *Calyptomena viridis*
- ☐ Dusky Broadbill *Corydon sumatranus*
- ☐ Bornean Banded Pitta *Hydrornis schwaneri*
- ☐ Blue-headed Pitta *Hydrornis baudii*
- ☐ Giant Pitta *Hydrornis caeruleus*
- ☐ Black-crowned Pitta *Erythropitta ussheri*
- ☐ Blue-banded Pitta *Erythropitta arquata*

Babblers

- ☐ Chestnut-winged Babbler *Cyanoderma erythropteron*
- ☐ Black-throated Babbler *Stachyris nigricollis*
- ☐ Moustached Babbler *Malacopteron magnirostre*
- ☐ Sooty-capped Babbler *Malacopteron affine*
- ☐ Ferruginous Babbler *Malacopteron bowdleri*
- ☐ Fluffy-backed Tit-Babbler *Macronus ptilosus*
- ☐ Black-capped Babbler *Pellorneum capistratum*
- ☐ Short-tailed Babbler *Pellorneum malaccense*
- ☐ Horsfield's Babbler *Malacocincla sepiaria*
- ☐ White-chested Babbler *Pellorneum rostratum*
- ☐ Chestnut-backed Scimitar Babbler *Pomatorhinus montanus*
- ☐ Rufous-crowned Babbler *Malacopteron magnum*
- ☐ Grey-throated Babbler *Stachyris nigriceps*
- ☐ Black-throated Wren-Babbler *Gypsophila nigricollis*

Bulbuls

- ☐ Black-headed Bulbul *Brachypodius atriceps*
- ☐ Black-and-white Bulbul *Brachypodius melanoleucos*
- ☐ Buff-vented Bulbul *Iole olivacea*
- ☐ Grey-cheeked Bulbul *Alophoixus bres*
- ☐ Yellow-vented Bulbul *Pycnonotus goiavier*
- ☐ Olive-winged Bulbul *Pycnonotus plumosus*
- ☐ Red-eyed Bulbul *Pycnonotus brunneus*
- ☐ Spectacled Bulbul *Pycnonotus erythrophthalmos*
- ☐ Hairy-backed Bulbul *Tricholestes criniger*
- ☐ Puff-backed Bulbul *Pycnonotus eutilotus*
- ☐ Scaly-breasted Bulbul *Ixos malaccensis*
- ☐ Cream-vented Bulbul *Pycnonotus simplex*
- ☐ Ochraceous Bulbul *Alophoixus ochraceus*

Flycatchers, Fantails & Shamans

- ☐ Malaysian Blue Flycatcher *Cyornis turcosus*
- ☐ White-rumped Shama *Copsychus malabaricus*
- ☐ Rufous-tailed Shama *Trichixos pyrropygus*
- ☐ Rufous-chested Flycatcher *Ficedula dumetoria*
- ☐ Pied Fantail *Rhipidura javanica*
- ☐ Spotted Fantail *Rhipidura perlata*

Drongos, Orioles & Cuckooshrikes

- ☐ Greater Racket-tailed Drongo *Dicrurus paradiseus*
- ☐ Bronzed Drongo *Dicrurus aeneus*
- ☐ Crow-billed Drongo *Dicrurus annectens*
- ☐ Black-naped Oriole *Oriolus chinensis*
- ☐ Dark-throated Oriole *Oriolus xanthonotus*
- ☐ Bar-bellied Cuckooshrike *Coracina striata*
- ☐ Lesser Cuckooshrike *Coracina fimbriata*
- ☐ Scarlet Minivet *Pericrocotus speciosus*
- ☐ Pied Triller *Lalage nigra*

Sunbirds, Spiderhunters & Flowerpeckers

- ☐ Ruby-cheeked Sunbird *Chalcoparia singalensis*
- ☐ Plain Sunbird *Anthreptes simplex*
- ☐ Red-throated Sunbird *Anthreptes rhodolaema*
- ☐ Purple-naped Sunbird *Hypogramma hypogrammicum*
- ☐ Crimson Sunbird *Aethopyga siparaja*
- ☐ Spectacled Spiderhunter *Arachnothera flavigaster*
- ☐ Long-billed Spiderhunter *Arachnothera robusta*
- ☐ Grey-breasted Spiderhunter *Arachnothera modesta*
- ☐ Orange-bellied Flowerpecker *Dicaeum trigonostigma*
- ☐ Yellow-breasted Flowerpecker *Prionochilus maculatus*
- ☐ Scarlet-breasted Flowerpecker *Prionochilus thoracicus*
- ☐ Bornean Flowerpecker *Dicaeum monticolum*

Leafbirds, Ioras & Fairy-bluebird

- ☐ Greater Green Leafbird *Chloropsis sonnerati*
- ☐ Lesser Green Leafbird *Chloropsis cyanopogon*
- ☐ Blue-winged Leafbird *Chloropsis cochinchinensis*
- ☐ Common Iora *Aegithina tiphia*
- ☐ Green Iora *Aegithina viridissima*
- ☐ Asian Fairy-bluebird *Irena puella*

Bornean Endemics & Miscellaneous

- ☐ Bornean Bristlehead *Pityriasis gymnocephala*
- ☐ Velvet-fronted Nuthatch *Sitta frontalis*

REPTILES

174 species

Crocodiles

- ☐ Saltwater Crocodile *Crocodylus porosus*
- ☐ Malaysian False Gharial *Tomistoma schlegelii*

Turtles & Tortoises

- ☐ Painted Terrapin *Batagur borneoensis*
- ☐ Malaysian Box Turtle *Cuora amboinensis*
- ☐ Common Leaf Turtle *Cyclemys dentata*
- ☐ Sunda Leaf Turtle *Cyclemys enigmatica*
- ☐ Malaysian Giant Turtle *Orlitia borneensis*
- ☐ Black Marsh Turtle *Siebenrockiella crassicolis*
- ☐ Asian Giant Tortoise *Manouria emys*
- ☐ Asian Softshell Turtle *Amyda cartilaginea*
- ☐ Malaysian Softshell Turtle *Dogania subplana*
- ☐ Asian Giant Softshell Turtle *Pelochelys cantorii*

Agamid Lizards (Dragons)

- ☐ Brown Shrub Lizard *Aphaniotis fusca*
- ☐ Crested Green Lizard *Bronchocela cristatella*
- ☐ Maned Forest Lizard *Bronchocela jubata*

Agamid Lizards (Dragons) *(continued)*

- ☐ Garden Lizard *Calotes versicolor*
- ☐ Horned Flying Lizard *Draco cornutus*
- ☐ Crested Flying Lizard *Draco cristatellus*
- ☐ Fringed Flying Lizard *Draco fimbriatus*
- ☐ Red-bearded Flying Lizard *Draco haematopogon*
- ☐ Large Flying Lizard *Draco maximus*
- ☐ Black-bearded Flying Lizard *Draco melanopogon*
- ☐ Obscure Flying Lizard *Draco obscurus*
- ☐ Common Flying Lizard *Draco sumatranus*
- ☐ Bornean Angle-headed Lizard *Gonocephalus borneensis*
- ☐ Doria's Angle-headed Lizard *Gonocephalus doriae*
- ☐ Giant Angle-headed Lizard *Gonocephalus grandis*
- ☐ Blue-eyed Angle-headed Lizard *Gonocephalus liogaster*
- ☐ Bornean Shrub Lizard *Phoxophrys borneensis*
- ☐ Large-headed Shrub Lizard *Phoxophrys cephalus*
- ☐ Black-lipped Shrub Lizard *Phoxophrys nigrilabris*

Geckos

- ☐ Cat Gecko *Aeluroscalabotes felinus*
- ☐ Kinabalu Bent-toed Gecko *Cyrtodactylus baluensis*
- ☐ Peters's Bent-toed Gecko *Cyrtodactylus consobrinus*
- ☐ Inger's Bent-toed Gecko *Cyrtodactylus ingeri*
- ☐ Malayan Bent-toed Gecko *Cyrtodactylus malayanus*
- ☐ Yoshi's Bent-toed Gecko *Cyrtodactylus yoshii*
- ☐ Common Four-clawed Gecko *Gehyra mutilata*
- ☐ Tokay Gecko *Gekko gekko*
- ☐ Warty House Gecko *Gekko monarchus*
- ☐ Smith's Giant Gecko *Gekko smithii*
- ☐ Brooke's House Gecko *Hemidactylus brookii*
- ☐ Frilly Forest Gecko *Hemidactylus craspedotus*
- ☐ Asian House Gecko *Hemidactylus frenatus*
- ☐ Garnot's House Gecko *Hemidactylus garnotii*
- ☐ Frilly House Gecko *Hemidactylus platyurus*
- ☐ Common Worm Gecko *Hemiphyllodactylus typus*
- ☐ Brown's Camouflage Gecko *Luperosaurus browni*
- ☐ Horsfield's Parachute Gecko *Ptychozoon horsfieldii*
- ☐ Kuhl's Parachute Gecko *Ptychozoon kuhli*

Skinks & Other Lizards

- ☐ Striped Bornean Tree Skink *Apterygodon vittatum*
- ☐ Grey Tree Skink *Dasia grisea*
- ☐ Olive Tree Skink *Dasia olivacea*
- ☐ Mangrove Skink *Emoia atrocostata*
- ☐ Philippine Ground Skink *Eutropis indeprensa*
- ☐ Common Sun Skink *Eutropis multifasciata*
- ☐ Black-banded Ground Skink *Eutropis rudis*
- ☐ Red-throated Ground Skink *Eutropis rugifera*
- ☐ Nieuwenhuis's Tree Skink *Lamprolepis nieuwenhuisii*
- ☐ Vyner's Tree Skink *Lamprolepis vyneri*
- ☐ Bornean Striped Skink *Lipinia inexpectata*
- ☐ Common Striped Skink *Lipinia vittigera*
- ☐ Bampfyld's Giant Skink *Lygosoma bampfyldi*
- ☐ Bowring's Supple Skink *Lygosoma bowringii*
- ☐ Blue-throated Forest Skink *Sphenomorphus cyanolaemus*
- ☐ Hallier's Forest Skink *Sphenomorphus hallieri*
- ☐ Many-scaled Forest Skink *Sphenomorphus multisquamatus*
- ☐ Sabah Forest Skink *Sphenomorphus sabanus*
- ☐ Beccari's Water Skink *Tropidophorus beccarii*
- ☐ Brooke's Water Skink *Tropidophorus brookei*
- ☐ Small-footed Water Skink *Tropidophorus micropus*

Skinks & Other Lizards *(continued)*

- ☐ Bornean Glass Lizard *Ophisaurus buettikoferi*
- ☐ White-tailed Worm Lizard *Dibamus leucurus*
- ☐ Inger's Worm Lizard *Dibamus ingeri*
- ☐ Voris's Worm Lizard *Dibamus vorisi*
- ☐ Long-tailed Grass Lizard *Takydromus sexlineatus*

Monitor Lizards

- ☐ Dumeril's Monitor Lizard *Varanus dumerilii*
- ☐ Rough-necked Monitor Lizard *Varanus rudicollis*
- ☐ Water Monitor *Varanus salvator*

Pythons, Blind & Primitive Snakes

- ☐ Reticulated Python *Malayopython reticulatus*
- ☐ Bornean Short Python *Python breitensteini*
- ☐ Wart Snake *Acrochordus granulatus*
- ☐ Elephant Trunk Snake *Acrochordus javanicus*
- ☐ Common Pipe Snake *Cylindrophis ruffus*
- ☐ Sunbeam Snake *Xenopeltis unicolor*
- ☐ Leonard's Pipe Snake *Anomochilus leonardi*
- ☐ Brahminy Blind Snake *Indotyphlops braminus*
- ☐ Lined Blind Snake *Ramphotyphlops lineatus*
- ☐ Muller's Blind Snake *Typhlops muelleri*
- ☐ Stoliczka's Stream Snake *Stoliczka borneensis*

Colubrid Snakes (Rear-fanged & Non-venomous)

- ☐ Speckle-headed Vine Snake *Ahaetulla fasciolata*
- ☐ Green Vine Snake *Ahaetulla prasina*
- ☐ Dog-toothed Cat Snake *Boiga cynodon*
- ☐ Mangrove Cat Snake *Boiga dendrophila*
- ☐ White-spotted Cat Snake *Boiga drapiezii*
- ☐ Jasper Cat Snake *Boiga jaspidea*
- ☐ Black-headed Cat Snake *Boiga nigriceps*
- ☐ Bicoloured Reed Snake *Calamaria battersbyi*
- ☐ Bornean Reed Snake *Calamaria borneensis*
- ☐ Grabowsky's Reed Snake *Calamaria grabowskyi*
- ☐ Hillenius's Reed Snake *Calamaria hilleniusi*
- ☐ Collared Reed Snake *Calamaria leucogaster*
- ☐ Low's Reed Snake *Calamaria lovii*
- ☐ Variable Reed Snake *Calamaria lumbricoidea*
- ☐ Prakke's Reed Snake *Calamaria prakkei*
- ☐ Red-headed Reed Snake *Calamaria schlegeli*
- ☐ Yellow-bellied Reed Snake *Calamaria suluensis*
- ☐ Short-tailed Reed Snake *Calamaria virgulata*
- ☐ Yellow-striped Trinket Snake *Coelognathus flavolineatus*
- ☐ Copper-headed Trinket Snake *Coelognathus radiatus*
- ☐ Beautiful Bronzeback Tree Snake *Dendrelaphis formosus*
- ☐ Kopstein's Bronzeback Tree Snake *Dendrelaphis kopsteini*
- ☐ Painted Bronzeback Tree Snake *Dendrelaphis pictus*
- ☐ Striated Bronzeback Tree Snake *Dendrelaphis striatus*
- ☐ Half-banded Bridled Snake *Dryocalamus subannulatus*
- ☐ Three-banded Bridled Snake *Dryocalamus tristigatus*
- ☐ Keel-bellied Whip Snake *Dryophiops rubescens*
- ☐ Dark-grey Ground Snake *Elapoidis fuscus*
- ☐ Orange-bellied Snake *Gongylosoma baliodeirum*
- ☐ Striped Ground Snake *Gongylosoma longicauda*
- ☐ Royal Tree Snake *Gonyophis margaritatus*
- ☐ Red-tailed Racer *Gonyosoma oxycephalum*
- ☐ Tricoloured Ringneck *Liopeltis tricolor*
- ☐ Dusky Wolf Snake *Lycodon albofuscus*
- ☐ Island Wolf Snake *Lycodon capucinus*

Colubrid Snakes (Rear-fanged & Non-venomous) (continued)

- ☐ Brown Wolf Snake *Lycodon effraenis*
- ☐ White-banded Wolf Snake *Lycodon subcinctus*
- ☐ Jewelled Kukri Snake *Oligodon everetti*
- ☐ Meyerink's Kukri Snake *Oligodon meyerinkii*
- ☐ Eight-lined Kukri Snake *Oligodon octolineatus*
- ☐ Mountain Reed Snake *Oreocalamus hanitschi*
- ☐ White-collared Reed Snake *Pseudorabdion albonuchalis*
- ☐ Mocquard's Reed Snake *Pseudorabdion collaris*
- ☐ Dwarf Reed Snake *Pseudorabdion longiceps*
- ☐ Malayan Keeled Rat Snake *Ptyas carinata*
- ☐ Javan Rat Snake *Ptyas korros*
- ☐ White-bellied Rat Snake *Ptyas fusca*
- ☐ Striped Black-headed Snake *Sibynophis geminatus*
- ☐ White-lipped Black-headed Snake *Sibynophis melanocephalus*
- ☐ Triangled Black-headed Snake *Sibynophis triangularis*
- ☐ Bornean Black Snake *Stegonotus borneensis*
- ☐ Orange Brown Snake *Xenelaphis ellipsifer*
- ☐ Malayan Brown Snake *Xenelaphis hexagonotus*

Pit Vipers

- ☐ Sumatran Pit Viper *Parias sumatranus*
- ☐ Bornean Palm Pit Viper *Trimeresurus borneensis*
- ☐ Bornean Keeled Green Pit Viper *Tropidolaemus subannulatus*

Kraits, Coral Snakes & Cobras

- ☐ Banded Krait *Bungarus fasciatus*
- ☐ Blue-headed Krait *Bungarus flaviceps*
- ☐ Blue Coral Snake *Calliophis bivirgatus*
- ☐ Malayan Striped Coral Snake *Calliophis intestinalis*
- ☐ Sumatran Cobra *Naja sumatrana*
- ☐ King Cobra *Ophiophagus hannah*

Water & Mud Snakes

- ☐ Yellow-banded Mangrove Snake *Cantorina violacea*
- ☐ Dog-faced Water Snake *Cerberus rynchops*
- ☐ Rainbow Water Snake *Enhydryis enhydryis*

Water & Mud Snakes (continued)

- ☐ Grey Water Snake *Enhydryis plumbea*
- ☐ Crab-eating Mangrove Snake *Fordonia leucobalia*
- ☐ Puff-faced Water Snake *Homalopsis buccata*

Keelbacks & Mock Vipers

- ☐ White-fronted Keelback *Amphiesma flavifrons*
- ☐ Sarawak Keelback *Amphiesma sarawacense*
- ☐ Yellow-spotted Water Snake *Hydrablades periops*
- ☐ Blue-necked Keelback *Macropisthodon rhodomelas*
- ☐ Corrugated Water Snake *Opisthotropis typica*
- ☐ Painted Mock Viper *Psammodynastes pictus*
- ☐ Mock Viper *Psammodynastes pulverulentus*
- ☐ Speckle-bellied Keelback *Rhabdophis chrysargos*
- ☐ Red-bellied Keelback *Rhabdophis conspicillatus*
- ☐ Red-necked Keelback *Rhabdophis subminiatus*
- ☐ Red-sided Keelback Water Snake *Xenochrophis trianguligerus*

Slug-eating Snakes

- ☐ Blunt-headed Slug-eating Snake *Aplopeltura boa*
- ☐ Smooth Slug-eating Snake *Asthenodipsas laevis*
- ☐ Malayan Slug-eating Snake *Asthenodipsas malaccanus*
- ☐ Keeled Slug-eating Snake *Pareas carinatus*
- ☐ Barred Slug-eating Snake *Pareas nuchalis*

AMPHIBIANS

72 species

Litter Frogs

- ☐ Web-footed Dwarf Litter Frog *Leptobrachella palmata*
- ☐ Rough-sided Dwarf Litter Frog *Leptobrachella parva*
- ☐ Lowland Litter Frog *Leptobrachium abbotti*
- ☐ Dring's Slender Litter Frog *Leptolalax dringi*
- ☐ Painted Slender Litter Frog *Leptolalax pictus*

Horned Frogs

- ☐ Rough Horned Frog *Megophrys edwardinae*
- ☐ Bornean Horned Frog *Megophrys nasuta*

True Toads

- ☐ Brown Slender Toad *Ansonia leptopus*
- ☐ Long-fingered Slender Toad *Ansonia longidigita*
- ☐ Spiny Slender Toad *Ansonia spinulifer*
- ☐ River Toad *Phrynoidis aspera*
- ☐ Giant River Toad *Phrynoidis juxtasper*
- ☐ Crested Toad *Ingerophrynus divergens*
- ☐ Swamp Toad *Ingerophrynus quadriporcatus*
- ☐ Cross Toad *Leptophryne borbonica*
- ☐ Brown Tree Toad *Pedostibes hosii*
- ☐ Marbled Tree Toad *Pedostibes rugosus*
- ☐ Lowland Dwarf Toad *Pelophryne signata*

Narrow-mouthed Frogs

- ☐ Blotch-sided Spadefoot Frog *Calluella smithi*
- ☐ Saffron-bellied Frog *Chaperina fusca*
- ☐ Variable Sticky Frog *Kalophrynus heterochirus*
- ☐ Intermediate Sticky Frog *Kalophrynus intermedius*
- ☐ Rufous-sided Sticky Frog *Kalophrynus pleurostigma*
- ☐ Lesser Sticky Frog *Kalophrynus subterrestris*
- ☐ Brown Bullfrog *Kaloula baleata*
- ☐ Tree Hole Frog *Metaphrynella sundana*

Narrow-mouthed Frogs *(continued)*

- ☐ Berdmore's Narrow-mouthed Frog *Microhyla berdmorei*
- ☐ Bornean Narrow-mouthed Frog *Microhyla borneensis*
- ☐ Pothole Narrow-mouthed Frog *Microhyla petrigena*

True & Fanged Frogs

- ☐ Mangrove Frog *Fejervarya cancrivora*
- ☐ Asian Grass Frog *Fejervarya limnocharis*
- ☐ Taiwanese Frog *Hoplobatrachus rugulosus*
- ☐ Hole-in-the-head Frog *Huia cavitympanum*
- ☐ Inger's Dwarf Frog *Ingerana baluensis*
- ☐ Rough Guardian Frog *Limnonectes finchi*
- ☐ Greater Swamp Frog *Limnonectes ingeri*
- ☐ Kuhl's Creek Frog *Limnonectes kuhlii*
- ☐ Giant River Frog *Limnonectes leporinus*
- ☐ Peat Swamp Frog *Limnonectes malesianus*
- ☐ Smooth Guardian Frog *Limnonectes palavanensis*
- ☐ Lesser Swamp Frog *Limnonectes paramacrodon*
- ☐ Seep Frog *Occidozyga baluensis*
- ☐ Yellow-bellied Puddle Frog *Occidozyga laevis*

Stream & Rock Frogs

- ☐ Northern Torrent Frog *Meristogenys orphnocnemis*
- ☐ Brown Marsh Frog *Hylarana baramica*
- ☐ White-lipped Frog *Hylarana chalconota*
- ☐ Common Green Frog *Hylarana erythraea*
- ☐ Rough-sided Frog *Hylarana glandulosa*
- ☐ Malaysian Frog *Hylarana luctuosa*
- ☐ Cricket Frog *Hylarana nicobariensis*
- ☐ Spotted Stream Frog *Hylarana picturata*
- ☐ Striped Stream Frog *Hylarana signata*
- ☐ Hose's Frog *Odorrana hosii*
- ☐ Rock Skipper Frog *Staurois latopalmaris*
- ☐ Black-spotted Rock Frog *Staurois natator*
- ☐ Green Spotted Rock Frog *Staurois tuberilinguis*

Tree & Flying Frogs

- ☐ Cinnamon Frog *Nyctixalus pictus*
- ☐ Hose's Bush Frog *Philautus hosii*
- ☐ Collett's Tree Frog *Polypedates colletti*
- ☐ Four-lined Tree Frog *Polypedates leucomystax*
- ☐ Dark-eared Tree Frog *Polypedates macrotis*
- ☐ File-eared Tree Frog *Polypedates otlophus*
- ☐ Frilled Tree Frog *Rhacophorus appendiculatus*
- ☐ Blue-spotted Tree Frog *Rhacophorus cyanopunctatus*
- ☐ Jade Tree Frog *Rhacophorus dulitensis*
- ☐ Short-nosed Tree Frog *Rhacophorus gauni*
- ☐ Brown Tree Frog *Rhacophorus harrissoni*
- ☐ White-eared Tree Frog *Rhacophorus kajau*
- ☐ Wallace's Flying Frog *Rhacophorus nigropalmatus*
- ☐ Harlequin Tree Frog *Rhacophorus pardalis*
- ☐ Reinwardt's Flying Frog *Rhacophorus reinwardti*
- ☐ Red-legged Tree Frog *Rhacophorus rufipes*

References & Acknowledgements

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Photography and field observations of Deramakot's wildlife.

Jason Luke

Photographs of Wallace's Flying Frog and the Dog-toothed Cat Snake.

Tom Cooper

Aerial photography of Deramakot's base camp, forest canopy and roads.

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The Mengaris — one of Borneo's tallest trees, often rising far above the surrounding canopy.

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