Report on a Mammal Watching Trip to MADAGASCAR

10 Apr – 07 May 17 (updated Aug 18)



Keith Millar keith millar@hotmail.com

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Grandidier's Baobabs (Adansonia grandidieri)

In April 2017 I travelled with a friend, Stephen Swan, to Madagascar and spent 29 days focused on trying to locate as many mammal species as possible, together with the endemic birds and reptiles.

At over 1,000 miles long and 350 miles wide, the world's fourth largest island can be a challenge to get around, and transport by road is not always the practical option. So we also took several internal flights with Madagascar Airlines. In our experience, a reliable carrier, but when 'technical difficulties' did maroon us for some 24 hours, a pre-planned 'extra' day in the programme at least meant that we were able to stay 'on target' in terms of the sites and animals we wished to see.

We flew Kenya Airlines to Antananarivo (Tana) via Nairobi (flights booked through Trailfinders https://www.trailfinders.com/) I chose Cactus Tours https://www.cactus-madagascar.com/ as our ground agent. Initially, I was sent a standard wildlife tour programme, but this I amended to include additional, key sites, i.e. Kirindy, within the western dry deciduous forest zone, Montagne d'Ambre National Park (NP) an isolated rainforest patch on the far northern tip of the Island and Berenty Private Reserve in the Xerophytic Spiny Forest Zone. This extended our visit by a few days – and increased the costs - but each site provided new species integral to the success of the trip.

It should be said that April is not perhaps the optimum time to visit (work commitments meant I had little choice) and we accepted that some mammals; the tenrecs, mouse and dwarf lemurs, might be dormant and that other lemurs may not be as vocal (and thereby as easy to find) as in the breeding season. Moreover, many bird species become very quiet/invisible at this time of year.

However, the season has much to recommend it; a wider choice of accommodation, at cheaper rates than in the Austral Spring; internal flights (with more seat availability); reserves, emptier of visitors (not, in itself a positive, but resulted in some very exclusive wildlife encounters) and, its corollary, the availability of the more experienced guides. We managed to see 55 mammal species (37 lemurs) 125 birds (including 82 endemics) and 41 reptiles, thirteen of which were chameleons.

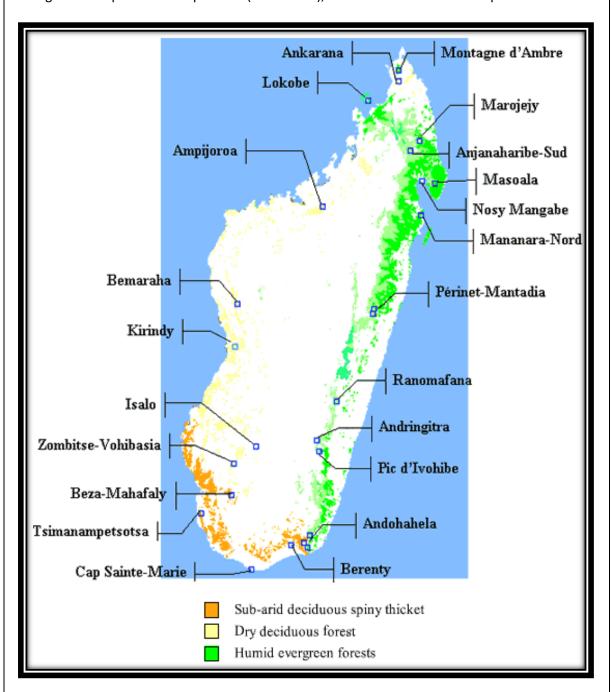
The monsoon season ends in March and the weather was warm and sunny throughout, save for a shower or two in the eastern rain forests (Mantadia). Temperatures in Tana and the eastern forests averaged 18-20 degrees Celsius. Western/ northern areas a comfortable 25 degrees. Nosy Be was hot, with temperatures into the mid-30s. Insect pests were minimal. More mosquitoes frequented our rather up-market hotel in Tana than we encountered anywhere else on the trip.



Starkly beautiful, but largely empty. A view across Madagascar's Central Highlands

A number of Madagascar's protected areas are well known and relatively easy to access, but to visit others, it's unfortunately a case of weighing potential value (in terms of target species) against cost and time, noting the very poor infrastructure around some parts of the country. For example, it was disappointing not to include reserves around the north west. Our full itinerary is on page 5.

As a reference A&C Black London Mammals of Madagascar: a Complete Guide by Nick Garbutt ISBN 978-9-7136-7043-1 proved invaluable. With so many new mammalian discoveries, possibly in need of a new edition, but it is still a classic field guide. I also used the excellent Helm Field Guide to the Birds of Madagascar and the Indian Ocean Islands by Patrick Hawkins et al ISBN 978-14729-2409-4. In the event, I was unable to find a reasonably priced copy of Frank Glaw's Guide to Madagascar's Reptiles and Amphibians (3rd edition), but which would also have proved useful.



Main Reserves of Madagascar (by kind permission of Cortez USA Tours and Travel)

Full Itinerary (with links to hotels/ accommodation)

Day 1 – London Heathrow - Nairobi - Tana

Overnight La Varangue <u>www.hotel-restaurant-lavarangue-tananarive.com</u>

Day 2/3 – Flight to Tólagnaro (Fort Dauphin) and car to **Berenty Private Reserve** for two nights Overnight Berenty Lodge http://www.madagascar-resorts.com/en/home/

Day 4 – Return drive to Tólagnaron and flight to Tana. Overnight La Varangue

Day 5/8 - Tana – Drive to **Ranomafana NP**. Accommodation Setam Lodge for three nights www.setam-lodge.mg/

Day 9 - Return drive to Tana. Overnight La Varangue

Day 10/11 – Flight to Maroantsetra and then boat to **Masoala NP**. Accommodation Arol EcoLodge for two nights http://www.arol-ecolodge.com/

Day 12 – Return boat to Maroantsetra and then flight to Tana. Overnight La Varangue.

Day 13 – Drive to Antsirabe. Overnight Coleur Café. https://www.couleurcafeantsirabe.com/

Day 14 – Drive Antsirabe – Morondava. Overnight Palissandre Cóte-Ouest. www.hotel-restaurant-palissandrecoteouest.com

Day 15/16 - Drive Morondava to **Kirindy Forest**. Accommodation at Kirindy for two nights. http://kirindyforest.com/

Day 17/19 – Drive Kirindy – Morondava then flight to Tuléur and drive to **Ifaty**. Accommodation at Le Paradisier for two planned nights (in the event three!). https://www.paradisier.net/reservation.html

Day 20/22 – Drive Ifaty to Tuléar then flight to Tana. Drive to **Andasibe/ Mantadia NP**. Accommodation at Vakona Forest Lodge. http://hotelvakona.com/en/home/

Day 23 – Drive from Andasibe NP to Manambato then boat to **Palmarium Private Reserve** Ankanin'Nofy overnight at Palmarium Lodge https://www.palmarium.biz/

Day 24 – Return boat to Manambato then drive to Tana. Overnight La Varague.

Day 25 – Flight to Antsiranana (formerly Diego Suarez)and drive to **Montaigne d'Ambre NP** Overnight Nature Lodge Ambre https://www.naturelodge-ambre.com/

Day 26 – Drive Montaigne d'Ambre NP to **Ankarana NP** Overnight Relais de l'Ankarana email ankarana.lerelais@gail.com

Day 27/28 – Drive Ankarana NP to Ankify then boat to Nosy Be and **Loboke Reserve**. Accommodation at Anjiamarango Beach Resort for two nights http://www.anjiamarango-beach-resort.com/

Day 29 – Fly Nosy Be to Tana. Drive to airport and home!

Conservation Issues

Humid rainforests, once covering the length of the eastern scarp; western dry forests, still holding many of the island's spectacular baobabs, and the southern sub-arid spiny forests. Each, differing landscape, is remarkable. Madagascar's flora has a 90% endemism rate (including eight of its plant families); six bird families (including two endemic orders); 36 of the 64 genera of reptile (with half of the world's chameleon species) and all its native terrestrial mammals, which - with the addition of recent discoveries - now includes some 150 species in just five groups (bats, tenrecs, rats and mice, civet-like carnivores and mongooses and lemurs). No visitor to Madagascar can however be immune to the plight of these natural treasures. NASA's Land Cover/Land Use Change Program estimates some 94% of forest has disappeared since the arrival of the first human settlers. From 2001 to 2017, Madagascar lost 3.27Mha of tree cover, equivalent to a 19% decrease since 2000. Extreme poverty and the impact of destructive slash and burn farming, illegal logging, mining and charcoal production are being exacerbated by one of the world's highest population growth rates (2.8%) climate change, systemic corruption and, recently, increasing levels of commercial hunting. WWF estimate 300 species of Madagascar's plants and animals are threatened with extinction, which - following the IUCN's conservation status review – now include 95% of all lemur species. The impact of environmental degradation is clear to see. More insidiously, according to Amnesty International, 'the criminal justice system is being used to silence and harass activists, instead of providing protection to their rights to freedom of expression, peaceful assembly and speech.." As one senior guide told me, 'there is no hope.' Even unbridled optimists would understand this view, but it also holds true that every visitor directly supports continued conservation of these species.



Verraux's Sifaka (Propithecus verreauxi)

Berenty Private Reserve



Ring-tailed Lemur (Lemur catta)

It takes over two hours (86km) to drive from the south eastern town of Tólagnaro (formerly Fort Dauphin) to Berenty. The reserve guide and driver collected us from the airport. Established in 1936 (and open to the public since 1981) it is a small private reserve (25ha) of gallery forest, with spectacular **Tamarind Trees** (*Tamarindus indica*) along the floodplain of the Mandrare River. Set within the arid spiny forest ecoregion, the reserve and its surrounding sisal plantations belong to the Heaulme family (whom our guide continually extoled!). With good quality accommodation, a safe environment for self-guided walks, on a network of flat forest trails, and iconic wildlife, it's perhaps no surprise that the reserve is Madagascar's most popular. Accordingly, bookings should be made well in advance. However, at this time of year, we had the reserve to ourselves. There is a long tradition of scientific research undertaken here, specifically with regard to Berenty's 3,000 or so lemurs (although it has also 103 recorded bird species and selection of endemic reptiles).

As we approached the reserve entrance a troop of **Ring-tailed Lemurs** (*Lemur catta*) were resting in the shade. They are inquisitive and opportunistic (theft of breakfast croissants is a speciality). Visiting Madagascar for the first time, this just had to be the first lemur species to see! Of course, Berenty is also justly famous for its obliging **Verraxu's Sifakas** (*Propithecus verreauxi*) and, as we walked the few yards from the car park to our lodging, on cue, a sifaka 'danced' across the path while others fed sedately in the surrounding trees, but leaping occasionally (up to three meters) from one limb to the next. Endemic birds included **Frances's Sparrowhawk** and a **Crested Coua**.

Our first night walk produced two new lemurs, firstly a **Grey-brown Mouse Lemur** (or **Reddish Grey Mouse Lemur**) (*Microcebus griseorufus*) actively hunting for fruit and insects and, shortly thereafter, our first **White-footed Sportive Lemur** (*Lepilemur leucopus*). This endangered species (as are the two diurnal lemurs) holds small territories, possibly accounting for our subsequent encounters with two other individuals, together with our first **Warty Chameleon** (*Furcifer verrucosus semicristatus*) a common species, given its ability to thrive in degraded habitats. A **Madagascar Nightjar** and a **Madagascar Scops Owl** (race Torotoroka) completed our evening tally.



Spider Tortoise (*Pyxis arachnoides*)



Verraux's Sifaka (Propithecus verreauxi)

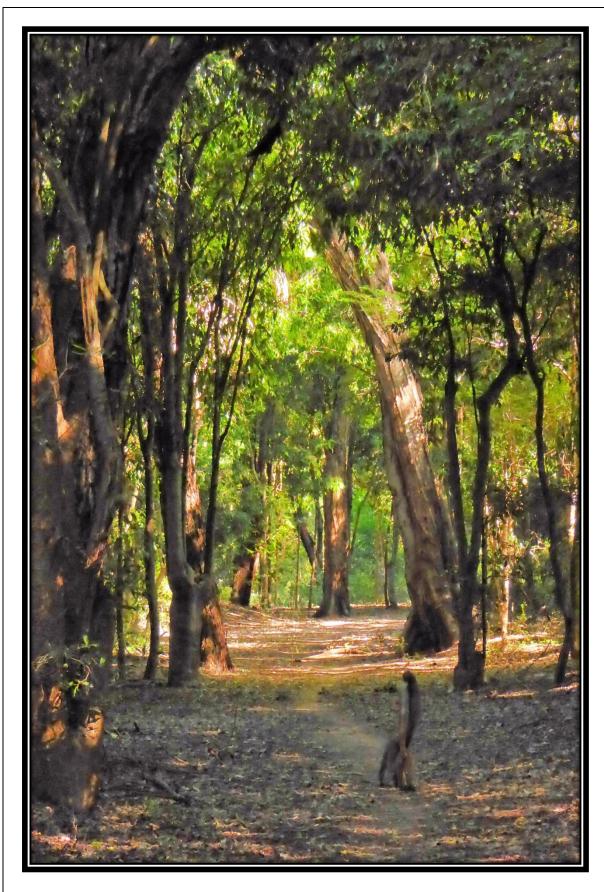
Next morning we encountered a relaxed group of Red-fronted Brown Lemurs (Eulemur rufifrons) (which are not native here) but do note the animals in Berenty have hybridised, since the 1980s, with a more recent introduction, Collared Brown lemur (Eulemur collaris). Birds today included a host of new endemics, most notably, an uncommon Giant Coua. We then found a small Spider Tortoise (Pyxis arachnoides) an endangered and little studied species, but which is thought to have a lifespan up to 70 years. Like other species of tortoise in Madagascar populations are declining rapidly as animals are trapped for food, body parts and the pet trade. Other reptiles; a Big Headed Gecko (Paroedura pictus) many Three-eyed Lizards (Chalarodon madagascariensis) Southern Bark Gecko (Lygodactylus tuberosus) Madagascar Spiny-tailed Iguana (Oplurus cuvieri) Mocquard's Dwarf Gecko (Lygodactylus verticillatus) and a Four-striped Snake (Dromicodryas quadrilineatus).

Another key mammal that may well owe its local survival to the protection afforded at Bernety is the Madagascar Flying Fox (*Pteropus rufus*). The roost here is said to be the largest in southern Madagascar (some 2,000 animals). The species status is vulnerable. In addition to its habitat being converted to agriculture, it is targeted for bush meat (both as subsistence food and commercially) but likely in unsustainable numbers. Viewing the roost is from a distance to minimise disturbance. Nearby, one fascinating (if worrying) sight was a gathering swarm of Malagasy Migratory Locust (*Locusta migratoria capito*) a living wave traversing the open ground and hanging off every branch. Locusts swarm twice every 10 years or so in Madagascar, in 2013 destroying 40% of food crops. Later, on our second night walk - to a different part of the reserve - we quickly located a Grey Mouse Lemur (*Microcebus murinus*) which occupies gallery forest habitat (whereas its potential competitor, the Reddish Grey Mouse Lemur is a denizen primarily of the spiny forest at Bernety). Madagascar Ground Gecko (*Paroedura bastardy*) and a prolonged view of White-browed Owl.

The next day we left Berenty. Interestingly, our guide had estimated that this small sanctuary held 1,500 **Ring-tailed Lemurs**, 1,000 **'Red-fronted Brown Lemur'** and some 600 **Verraux's Sifaka**. As a postscript to our visit, tragedy subsequently struck the sifakas at Berenty, as in early 2018 up to 37 animals (nearly all males) died after suffering from an unknown ailment, causing paralysis of the hind limbs, and, eventual respiratory failure (other lemur species were not so affected). The cause may have been a tick-borne disease, or other parasite. Fortunately, I am aware of no further deaths having been reported since 30 April. However, the incident perhaps highlights the risk of infection impacting isolated populations of animals within their increasingly fragmented habitats.



White-footed Sportive Lemur (Lepilemur leucopus)



Red-fronted Brown Lemur (E. rufifrons x E. collaris) walks the forest at Berenty

Ranomafana National Park

Situated in the south eastern region of Madagascar, Ranomafana is one of Madagascar's most popular National Parks. Covering some 40,000ha of mid-altitude and montane primary forest (but mostly secondary forest near the main tourist zone, 'Talatakely') it has a dramatic character, with many small torrents hurtling down steep-sided slopes into the Namorona River. Precipitation is high, at over 2,500mm per annum. We had no rain during our stay, but mist and cloud built up in the afternoons, effectively shrouding the reserve. The park was established in 1991, 'with the purpose of conserving the unique biodiversity of the local ecosystem and reducing the human pressures on the protected area'. Ranomafana is an integral part of the Eastern Rainforests World Heritage Site. A local guide is required for all visitors entering the park. There is a large pull-in for vehicles at the park entrance, where the guides wait for custom. Night walks inside the reserve are not allowed, but it's popular to arrange a guide to take a walk along the Route Nationale 25 that transects the reserve and can be very rewarding, but the speed of the lorries is disconcerting!



Namorona River, Ranomafana NP

The Setam Lodge is set on a hill directly opposite the reserve. We arrived late in the day, having driven down from Tana (about a ten hour journey) but still in time for a night walk, which, no sooner had we started than we saw our first **Brown Mouse Lemur** (or **Rufous Mouse Lemur**) (*Microcebus rufus*) followed by several others, foraging actively in the understorey and low trees. A single **Madagascar Rousette** (*Rousettus madagascariensis*) was the only other mammal seen. The night belonged to the Chameleons, with five species along the way; the small **Side-striped** (or **Perinet**) **Chameleon** (*Calumma gastrotaenia*), **Oustalets's** (or **Malagasy Giant Chameleon**) (*Furcifer oustaleti*) often cited as the largest species, **Bizarre-nosed Chameleon** (*Calumma hafahafa*), the Latin name taken from the Malagasy word for its nasal appendages (!), **Snub-nosed Chameleon** (*Calumma nasutum*) and **Blue-legged** (or **Cryptic**) **Chameleon** (*Calumma crypticum*).



Snub-nosed Chameleon (Calumma nasutum)

The next morning we entered the reserve and soon crossed the river and began to climb the main Talatakely trail, when we came across three critically endangered **Golden Bamboo Lemurs** (*Hapalemur aureus*). Their discovery here, as recently as 1983, prompted the formation of the National Park. Only an estimated 600 animals remain, within a localised, patchy distribution. It is dependent on another endemic, the **Giant Bamboo** (*Cephalostachium viguieri*) and has evolved to be resistant to the high concentrations of cyanide found within the tissues of this plant. Around 500g of bamboo are eaten every day; 'twelve times the usual mammalian lethal dose of cyanide'.

Further along the track we saw a small party of Red-bellied Lemurs (Eulemur rubriventer) clearly showing the diagnostic patches of whitish skin below their eyes. This species feeds on 70 different plant species, but especially favour introduced Brazilian Guava (Psidium cattleyanum). Red-bellied Lemurs are best seen in Ranomafana, where some groups have become successfully habituated. Higher still, toward the crest of the trail, we spotted several, critically endangered (Hill's) Blackand-White Ruffed Lemurs (Varecia variegate editorum). In just three generations this species has undergone an 80% drop in population, largely due to deforestation for slash and burn agriculture, but also subject to continued pressure from hunting. A truly beautiful lemur. Scrambling down a steep bank, deep in the understorey, we next found ourselves on an eye-to-eye level with a pair of grooming and highly distinctive Milne-Edwards Sifakas (Propithecus edwardsi) with their black heads and upper bodies, suffusing into rich brown and russet and finally to a creamy lower back. This pair was engaged in grooming, and undertaken in a very gentle, delicately nuanced manner. Similarly to the last species, populations have dropped 50% in three generations (these animals live about 30 years) and is classified as endangered. Reptiles included a Satanic Leaf-tailed Gecko (Uroplatus phantasticus) a tiny Brown Leaf Chameleon (Brookesia superciliaris) and an amphibian, Green Burrowing Frog (Scaphiophryne marmorata). Endemic birds included Blue, Rufous and Tylas Vangas, Ward's Vanga (or Flycatcher) Common Sunbird-Asity, Madagascar Cuckoo-shrike and Cuckoo-roller, placed in its own order, Leptosomiformes. Given how quiet the forests often are at this time of year, it was reassuring to hear this species emitting its piercing, far-reaching call!

In the afternoon we drove east for a short drive and stopped by a waterfall, at a small, but obvious lay-by. Walking back in the direction in which we'd come (for about 50 meters) a small cave entrance became visible on the opposite side of the road. Scrambling down into it, the low roof held a half a dozen specimens of **Major's Long-fingered Bats** (*Miniopterus majori*). On the nearby forest walk we encountered a second group of **Red-bellied Lemurs** and two remarkable **Giraffe Weevils** (*Trachelophorus giraffa*). Later, on a short night walk, a fox-like **Fanaloka** (or **Malagasy Civet**) (*Fossa fossana*) appeared on the road, trotting toward us, before turning off into the forest.



Major's Long-fingered Bat (Miniopterus majori)



Brown Leaf Chameleon (Brookesia superciliaris)

Our last day in Ranomafana began nervously, having not yet seen the two other bamboo lemurs. The day started well, with a fly-by **Madagascar Pygmy Kingfisher**, and, after a frantic scramble through the undergrowth we came across some very skittish Eastern Lesser Bamboo Lemurs (*Hapalemur griseus*) although these lemurs are a distinct sub species Ranomafana Bamboo Lemur (*H. g. ranomafanensis*). Close by, temperamentally opposite to its relative, a **Greater Bamboo Lemur** (*Prolemur simus*) sat impassively, one of the world's rarest primates, now occupying some 4% of its historic range. Only some 500 individuals are known. These are understood to comprise eleven subpopulations, but with each one, disturbingly, now rendered remote from each other.



Greater Bamboo Lemur (*Prolemur simus*)

Leaving the distinctly Koala-like **Greater Bamboo Lemur**, we came upon an **Eastern Red Forest Rat** (*Nesomys rufus*) on the track, before heading down to the Vohiparara Circuit. Primarily a birding area (to build up our rather paltry list). The visit didn't disappoint, with four new **Vangas** (**Chabert**, **Red-tailed**, **White-headed**) and **Dark Newtonia**, three species **of Tetraka** (**Grey-crowned**, **Long-billed** and **Spectacled**) **Nelicourvi Weaver**, a warbler-like **Green Jery** and sought-after **Blue Coua**. Almost completing the circuit we came across a **Lateral Water Snake** (*Liopholidophis lateralis*) in the throes of consuming a live **Madagascar Jumping Frog** (*Aglyptodactylus madagascariensis*).

Early on the morning of Day 9 of our trip to Madagascar we left Ranomafana for the long drive back to Tana. From the hotel, looking across to the National Park, one couldn't help but notice the much burning and clearance of land, which clearly demarcated the boundary of the park. Upon leaving the forest one last mammal was sighted, a **Black Rat** (*Rattus rattu*) running across the road.

Ankazomivady Forest

In many ways Ankazomivady is a metaphor for the increasingly complex issues facing Madagascar. Located along Auto Route 7, near to the town of Ambosita, it is a seven hour drive from Tana. The forest is readily identifiable; it is, after all, the *only* sizable area of native habitat one sees on the entire journey! (Ranomafana is still a further two hour drive south). In 2006 Ankazomivady forest comprised 1600ha. Today, that figure is near 600ha. It is believed that the entire forest could disappear within the next two to three years, primarily due to burning for charcoal and for the illicit production of geranium oil. With less cover, hunting pressure on remaining lemurs is intense. We stopped by a roadside lake, at a small sign and reception centre for Association Tantelygasy, part of the Lemur Conservation Network. https://www.lemurconservationnetwork.org/ The Association works in partnership with village leaders and farmers in, 'developing ways for the local community to create income, which decreases pressure on the nearby forests [and in] raising awareness among local Malagasy about the importance of these forests and the need to protect them'. This work may well represent the last chance to save what remains of this vital habitat.



Lake at the entrance to Association Tantelygasy, Ankazomivady

Masoala National Park

Masoala National Park (created in 1997) is located in the remote north eastern corner of the island and protects the largest surviving swathe of coastal/ lowland rainforest in Madagascar (in excess of 400,000ha). Masoala is reached by a two hour boat ride from the town of Maroantsetra, across Antongil Bay. It is a beautiful area, but its remoteness has not protected it from the exploitation of its **Madagascar Rosewood** (*Dalbergia maritima*) and **Ebony** (*Diospyros spp*) trees that may take 300 years to reach maturity) but whose timber is prized, primarily for the thriving Chinese market.

We took a morning flight from Tana to Maroantsetra and met our guide for a 15 minute drive to the beach, where a pre-arranged boat was waiting to take us across to the Masoala Peninsula. Antongil Bay is the largest in Madagascar. It was calm, but the waters can get quite choppy, particularly in the afternoons. Half way out, we encountered a pod of five Indo-Pacific Bottlenose Dolphins (Tursiops aduncus) which characteristic for this species, took no interest in our boat. Later in the year (Jun-Sep) the bay plays host to 'hundreds' of Humpback Whales (Megaptera novaeangliae). (The sea here is still relatively rich and Masoala also includes three marine parks).



The Beach at Arol Ecolodge, Masoala

I had two reasons for visiting Masoala – **Helmet Vanga** and **Red-ruffed Lemur** (*Varecia rubra*). The former because it's such an extraordinary bird and the latter, because having seen this beautiful animal confined to a zoo enclosure, some years ago, I vowed one day to see it in the wild. And to do that one must come to Masoala. On arrival we took an early walk into the forest. Trails here are steep and rainfall frequent (3,500mm a year) but for the two days we visited it stayed dry. After climbing for a few moments the guide went to check the path ahead while we stood silently waiting, when I realised that we were being watched. Perched just a few feet away – a fantastic **Helmet Vanga!** There followed a scuttling in the undergrowth and out onto the track popped a **Lowland Streaked Tenrec** (*Hemicentetes semispinosus*). Called urgently by our guide, he had in the meanwhile located an **Eastern Avahi** or **Eastern Woolly Lemur** (*Avahi laniger*). Masoala was proving worth the boat ride! The name 'avahi' refers to their high-pitched defensive call, which we heard around our camp at night. Returning down the track a **Lowland Red Forest Rat** (*Nesomys audeberti*) bounded across; then stopped in the safety of nearby vegetation and peered back at us. This species is highly intolerant to forest destruction, a fact compounded by its fragmented range. Also occasionally seen at Ranomafana NP, the Masoala race may prove to be a separate species.

Next morning began with Crustaceans! Namely, a beach full of industrious Horned Ghost Crabs (Ocypode ceratopthalmus) and, inside the canopy, a dapper Forest Crab (or Tree Climbing Crab) (Malagasya antongilensis) and with reptiles, including striking Madagascar Day Geckos (Phelsuma madagascariensis) a Madagascar Night Snake (Madagascarophis colubrinus) discovered torpid, digesting its last meal (a Lowland Streaked Tenrec, the mammal's spines still visible, protruding from the snake's face and body). A productive walk in the surrounding forest provided a host of endemic birds, Madagascar Wood Rail, both Red-breasted and Red-fronted Couas, Madagascar Starling, Madagascar Spinetail and Forest Fody, together with a nice surprise, a Short-legged Ground Roller, perfectly camouflaged buffs and browns, perched immobile in the sub-canopy.



Madagascar Day Gecko (Phelsuma madagascariensis



Madagascar Night Snake(Madagascarophis colubrinus) perhaps regretting its last meal

A small troop of endangered White-fronted Brown Lemurs (or White-headed Lemurs) (*Eulemur albifrons*) suddenly crashed in around us in the trees. This is another lemur whose population has decreased alarmingly (by 50% since the 1980s) due mostly to slash and burn agriculture. But the day also started anxiously (again!) given it was my only chance to see Red Ruffed Lemur. I was told that they disperse at this time of year and are less vocal. Over the ensuing trek we twice heard their loud, booming calls (the same loud calls that help hunters locate them) but in the far distance, and the voices would then fall silent and we'd lose their trail. However, some six hours later, turning a corner and looking up into the evening canopy two Red ruffed Lemurs stared back. A sublime moment, only marred by the persistent sound of an axe hitting wood, not too far away.



Red-ruffed Lemur (Varecia rubra)

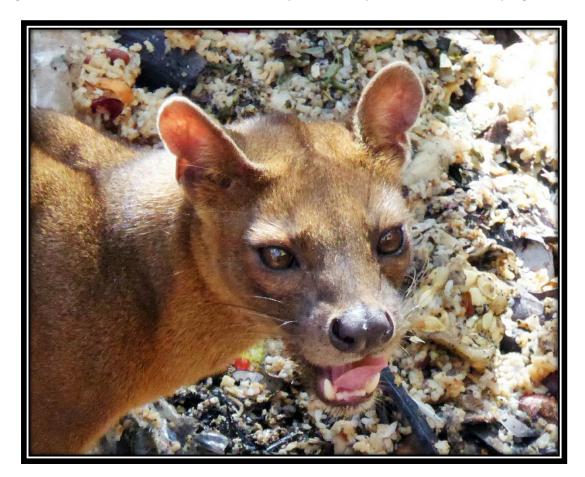
As dusk fell, a **Commerson's Leaf-nosed Bat** (*Hipposideros commersoni*) began hawking low over the trail. Madagascar's largest microbat, it has a wide range, but it is hunted extensively (and likely unsustainably) in the western part of its range. As we walked back, there was a unfamiliar call and we scrambled down a steep slope to get closer to its source, to be met with a pair, of the rarely encountered, **Eastern Fork-marked Lemurs** (or **Masoala Fork-marked Lemur**) (*Phaner furcifer*) the dark facial fork set prominently in a greyish face. Further on, while we watched a tiny **Horned Leaf Chameleon** (*Brookesia superciliaris*) closer by (so close, I didn't at first see it) a **Webb's Tuft-tailed Rat** (*Eliurus webbi*) clambered down a thin shoot close to ground level. Our last Masoala mammal.

Nosy Mangabe Special Reserve

On return to Maroantsetra the boat came close alongside Nosy Mangabe, but we had insufficient time to disembark and explore. The island (520ha) is only 2km from Maroantsetra and forms part of the Masoala NP. It appeared to be entirely covered in thick forest. It is possible to camp on the island. The main mammalian attractions are **Aye-aye** (*Daubentonia madagascariensis*) (introduced fifty years ago to help save them from extinction on the mainland) and **Black and White Lemur**.

Kirindy Forest

Kirindy is a privately managed 12,000ha block of dry deciduous forest in south west Madagascar. The terrain is largely flat, with sandy soils. Rains fall January to March. For the rest of the period it's largely dry. The nearest major town is Morondavam, about a three hour drive to the south. On the way to Kirindy one passes the famous Avenue of the Baobabs, a parallel row of 25 huge **Grandidier's Baobabs** (*Adansonia grandidieri*) the largest of Madagascar's six species of Baobab. It's a popular spot for tourists, particularly at sunset. Kirindy, due to its relative proximity, was the busiest place we visited, with several jeep loads of tourist parties arriving after dusk to go on the guided night walks. For those staying at the forest station the accommodation is not luxurious, but the site offers the best opportunity in Madagascar to see **Fossa** (*Cryptoprocta ferox*) Madagascar's largest carnivorous mammal, and the reason why I had Kirindy shoehorned into our programme!



Fossa (Cryptoprocta ferox)

Having met our guide, Ludo (who was an excellent naturalist) for this, our next part of the trip, we arrived at Kirindy and quickly dropped off our bags at our bungalow. As I stepped outside onto the veranda, however, a **Fossa** walked right past, without even a glance in my direction. It was surely never supposed to this easy! To say, I was excited, would be an understatement. Ludo was close by and beckoned us to the edge of the camp, where the food waste was dumped. The **Fossa** had headed directly there and was joined presently by his larger brother. We watched them for a spellbinding period when, finally sated, both animals sauntered off together, back into the forest. Perhaps it's rather fanciful, but when one considers such a strange mongoose, civet, or cat-like animal in the context of convergent evolution, there is another yellow-brown coated animal, of similar size, holding semi-erect a long stiff tail and which had once been the apex predator in its own island home, half a world away. The closest thing to a Thylacine I'll ever see (minus stripes!).



The brothers head out

Heading off ourselves for an introductory walk around the camp, we hadn't gone far than we came across a **Narrow-striped Mongoose** (*Mungotictis decemlineata*). Madagascar's evolutionary answer to a squirrel. Kirindy is the best place to see this species, endangered, given its fragmented range. Worryingly, we were told that refugees from more southerly areas, 'impacted by climate change', have recently been moved close to Kirindy. Already surrounding forest has been burned.



Narrow-striped Mongoose (Mungotictis decemlineata)

The Mongoose then scampered away, prompted by the arrival of a group of **Red-fronted Brown Lemurs**. Groups here are habituated and these were highly inquisitive, especially of my camera! It has been discovered recently (by Louise Peckre, a primatologist working at Kirindy) that this species has devised a means to alleviate itchiness caused by intestinal worms. They self-anoint themselves with millipede secretions, applying it to affected parts of the body. Works apparently.



Red-fronted Brown Lemur (Eulemur rufifrons)

Our first night walk proved – if any were by now needed – what a great site this is for mammals. It began with Malagasy Mouse-eared Bat (*Myotis goudoti*) and then the lemurs took over. Namely, Pale Fork-marked Lemur (*Phaner pallescens*) and Coquerel's Giant Mouse Lemur (*Mirza coquereli*) two endangered species, Fat Tailed Dwarf Lemur (*Cheirogaleus medius*) due to its large range, one of the very few species not under immediate threat, and Red-tailed Sportive Lemur (or Red-tailed Weasel Lemur) (*Lepilemur ruficaudatus*) which possesses one of the lowest resting metabolic rates recorded for any mammal. Indeed, when habitat has been logged 'they will frequently die because they lack the dietary energy necessary to move to more distant trees'. (*Mittermeier* et al. 2013).

That night we were kept awake by rodents running amok in our roof space. Despite my attempts to see them and identify the species, I didn't succeed. However, the washing that we'd laid out on the surrounding branches to dry, and had forgotten to take in, had been ripped to threads by the morning! Although, the culprit may well have been the Fossa, sitting outside our front porch when I returned from breakfast. Today revealed a White-breasted Mesite. An anciently evolved bird (of just three species) only distantly related to any other bird family. We drove to a different area of forest for our second night walk, where we located our quarry, a Madame Berthe's Mouse Lemur (Microcebus berthae) at just over 9cm the world's smallest primate, only discovered in 1992. Also, a Grey-brown Mouse Lemur, a Commerson's Leaf-nosed Bat and, on return to camp, another Kirindy speciality, a Giant Jumping Rat (Hypogeomys antimena), which ran across the open ground in front of the restaurant. Most of this species remaining range is encompassed by this one forest.



Red-tailed Sportive Lemur (Lepilemur ruficaudatus)

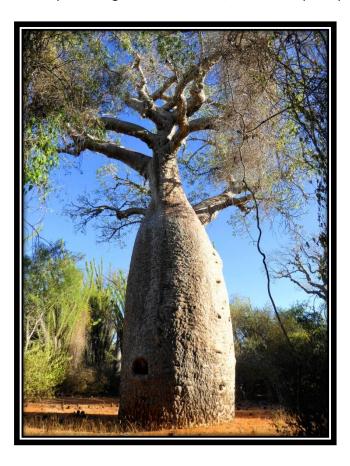


Madame Berthe's Mouse Lemur (Microcebus berthae)

Ifaty--Mangily

Next morning we returned to Morondava and caught a flight south to Tuléur, then a 40 minute drive north on a good road to Ifaty- Mangily. The area is one of the poorest in Madagascar. Much of the spiny forest has been cut down for charcoal, but a few protected patches remain, including Reniana Reserva, noted for its baobab specimens, together with chances to see **Radiated Tortoise** (*Astrochelys radiata*) and Parc Musa, better known for birdwatching, but which also holds some interesting mammals. The area is hot and dry, with over 300 recorded days of sunshine each year.

Parc Musa held Long-tailed Ground Roller, Subdesert Mesite, Archibold's Newtonia, Lafresnaye's Vanga, Green-capped Coua, Madagascar Buttonquail and Thamnornis, amidst some magnificent Fony Baobabs (Adansonia rubrostipa). Despite wishing hard (as at Kirindy) for Sickle-billed Vanga it wasn't to be. Later, we returned for a night walk and met a family of three, carrying huge sacks, extracting brushwood. Our first mammal, peering out at us from a tree hole, remains something of a curiosity. A beautiful lemur, well-marked, with white/ grey on the face and grey, with richer brown tones on its body. We were told that two-three of these animals had taken up residence, having possibly been disturbed from their usual habitat by a nearby Chinese construction project. I don't know whether that's true, but something prompted their apparent, sudden arrival. It is an (apparently) undescribed Sportive Lemur sp. The closest candidate species are Petter's Sportive Lemur (Lepilemur petter) or Hubbard's Sportive Lemur (Lepilemur hubbardorum) but neither quite match the description, or White-footed Sportive Lemur (as seen at Berenty) whose appearance is similar, but the home range is 1000km to the east. As we walked on, a Lesser Hedgehog Tenrec (Echinops telfairi) allowed close observation. The species is still widely found in the dry south and west, but generally enters torpor during the driest season, so we were perhaps fortunate to see it.



Fony Baobab (Adansonia rubrostipa)



'Ifaty' Undescribed Sportive Lemur species (*Lepilemur sp*)



Lesser Hedgehog Tenrec (Echinops telfairi)

Andasibe-Mantadia National Park

Andasibe-Mantadia NP encompasses two distinct areas: Analamazaotra Special Reserve (known also as Andasibe, or by its old French name, Périnet) in the south, next to Andasibe village and comprising 800ha of forest (but with many of its larger trees long removed) and the much larger Mantadia NP to the north. The latter section comprises over 10,000ha of primary mid-altitude montane forest. Both parts belong to the same humid forest complex, but which human activities have now divided into two. The NP was created in 1989, but unlike Ranomafana, Masoala and other eastern forest sanctuaries, it has failed to be inscribed as part of the Rainforests of the Atsinanana World Heritage Site. The area receives some 200mm of rainfall per annum. The trails are steep – when wet - slippery. Also, one of the few places where biting midges were a (slight) nuisance. Due to its closeness to Tana (150km) and a good road the park attracts many visitors.

Back in Tana we had met our new driver, Rivo, for the journey to Antisibe. Rivo, as it turned out, was just great; he understood precisely why seeing these animals was important to us and secured the services of an excellent local guide, Liva whom I would highly recommend. He was a part of the local NGO Mitsinjo https://sites.google.com/site/mitsinjo/home which has their office opposite to the NP entrance, at Analamazaotra. Mitsinjo began as a community initiative and works in conservation and nature-based tourism. Liva was there waiting and we immediately set off into the forest, where, having tried for a few birds - none of which are particularly responsive to playback at this time of year - we then heard the loud, wailing call of the Indri (Indri indri) the largest living lemur and star attraction of this NP. There are a couple of habituated groups of this critically endangered species, whose local name means 'father of man'. Ironically, as traditional taboos against targeting Indri have broken down, hunting, as well as deforestation of its remaining habitat, is now a growing threat to its survival. Although a long-lived a species (perhaps up to 60 years) females only give birth once every three years, so capacity for population growth is slow.

We next saw **Common Brown Lemurs** (*Eulemur fulvus*) unfortunately now a misnomer, given they are no longer as common as they were on Madagascar. Its current decline may alter its status from Near Threatened to Vulnerable. An introduced population on Mayotte, a French Department (geographically part of the Comoros) is the only population showing an increase (perhaps totalling 70,000 animals). A night walk added **Elephant-eared Chameleon** (*Calumma brevicornis*) **Two-horned Chameleon** (*Furcifer bifidus*) and a **Goodman's Mouse Lemur** (*Microcebus lehilahytsara*) discovered in 2005 it occupies a severely fragmented (and limited range) centred on Andasibe NP.



Goodman's Mouse Lemur (Microcebus lehilahytsara)

Due to the extensive felling of the forests in the environs of Andasibe-Mantadia NP, since 2006 there has been a project to relocate animals to the relative safety of the Analamazaotra Special Reserve, most notably, **Diademed Sifaka** (*Propithecus diadema*) which has become habituated. However, we went to Mantadia, in search of non-habituated animals, but also as an opportunity to explore a different area of this NP. It was our only day of rain, which, at times, made going tricky. However, after a couple of hours trekking we heard a troop in the distance and clambered down a slope, whereupon, across a narrow valley we had our very first glimpse of two **Diademed Sifakas**. We then watched them for some time before retracing our steps to a lookout point over the forest, surprising a lone Indri, sitting nonchalantly feeding on the shubbery, in the gathering rain.



Indri (Indri indri)

Our second (and final) night walk at Analamazaotra again took us along the road from Andasibe. We weren't alone. Several groups of tourists, each with a designated guide peered into bushes, as were we. The difference was we had Liva, who quickly located the first of several **Greater Dwarf Lemurs** (or **Geoffroy's Dwarf Lemur**) (*Cheirogaleus major*). To be fair, the other guides picked out this species. However, it was Liva who discerned a more rufous animal with distinctive eye rings, a **Furry-eared Dwarf Lemur** (Cheirogaleus crossleyi) only seen during the wet period from Oct-Apr. However, the status of these species is data deficient due to a lack of detail as to their taxonomy. More work is required to determine whether the Antisibe species is *c.major*, *c. crossleyi*, or both.

Palmarium Private Reserve (Ankanin'ny Nofy)

The Pangalanes Canal stretches some 600km along Madagascar's eastern coast. A complex of natural and man-made rivers, waterways and lakes, within which is the Palmarium Private Reserve. This can only be reached by boat (28km) from the village of Manambato, across Lac Rasoake, then through a canalised stretch (with only occasional villages) before entering Lac Ampitable, where the lodge is situated. This small reserve, formerly a botanic garden, with a focus on native palms and orchids, is also now home to an eclectic mixture of free-ranging lemur species, largely originating from elsewhere on the island. However, although it could be construed simply as a zoo, there is a major conservation programme to reconnect the long-fragmented forest habitat.



The Pangalanes Canal

The track leading off the main R2 to the village of Manambato may only be a short distance on the map, but it's deeply rutted for its entire (7km) length. Allow sufficient time to catch the boat! The journey across to the reserve is picturesque, with some remaining forest along the canal sections. The lodge is set on a bluff above the lake shore. On arrival, introduced **Crowned Lemurs** (*Eulemur coronatus*) and the larger, dominant **Black-and-White Ruffed Lemurs** are quick to investigate new visitors. However, the reason for visiting Palmarium is for a lemur that *is* native to this region, **Aye- aye**. We had pre-arranged the boat that leaves at dusk from the jetty, to a neighbouring island, where on landing, the guide leads the way to a spot in the forest where the **Aye-ayes** come to take the coconuts put out for them. I was told that these animals were released here from the neighbouring area, where they risked being killed for eating plantation crops. One must take a view as to their wild pedigree. I still rate the moment I saw these two creatures emerge from the darkness as possibly the crowning moment of the trip. An extraordinary and mesmerising animal that may, in fact, trace its lineage to a different African ancestor to all other living lemur species.

On the return to Tana, I noticed children selling some live animals at the roadside. Upon closer inspection it transpired that these were three **Common Tenrecs** (*Tenrec ecaudatus*). I wanted to purchase them and then let them go again, but controlling these animals while in a moving vehicle wouldn't have been conducive to driver concentration! We never did see this species in the wild.



Aye Aye (Daubentonia madagascariensis)



Black-and-White ruffed Lemur (*Varecia variegata*)

Montagne d'Ambre NP

Montagne d'Ambre is an isolated volcanic massif covering some 18,000ha located in the extreme north of Madagascar 30km south of Antsiranana (formerly Diego-Suarez) from which bush taxis run daily to Joffreville, 7km from the park entrance. The vegetation is montane rainforest, which stands in stark contrast to the low lying, dryer landscape that surrounds it. In fact, annual rainfall is nearly four times greater here than its environs and best avoided during heavy rains in Jan-Mar. The NP protects 1,000 plant species, 36 species of butterfly and other fauna which due to isolation have high levels of endemism. It is a scenic NP and includes waterfalls and pea green crater lakes.

We flew from Tana into Antsiranana and drove direct to the NP. Walking along the entrance track that winds its way up the mountain we encountered our first group of **Sanford's Brown Lemurs** (*Eulemur sanfordi*). Since 2001 the six former subspecies of *E. fulvus* have been raised to full species status, but this particular brown lemur has the most limited distribution of this group, restricted to northernmost Madagascar. Proceeding, we then located a troop of **Crowned Lemurs**, which, unlike the Sanford's, has a greater tolerance for dry forests and is more common than the former species elsewhere within their shared range. However, both species share the dubious distinction of being endangered, primarily because of their habitat becoming increasingly fragmented and, in the case of **Crowned Lemurs**, hunting pressure and collection for the pet trade.

Later, walking down to one of the crater lakes, we disturbed a **Northern Ring-tailed Mongoose** (or **Ring-tailed Vontsira** (*Galidia elegans dambrensis*). There are three distinct races; this one is lighter chestnut on the upperparts and belly. It's a versatile little animal, with a very catholic diet. Mostly a terrestrial hunter, it can climb well and it's also an adept swimmer. It is declining due to many of the factors impacting negatively on populations of other animals in Madagascar, but this species has also to contend with competition from introduced **Small Indian Civet** (*Viverricula indica*).

As we came upon an open areas of forest, down in the leaf litter the guide showed us one of the world's smallest lizards, a **Mount d'Ambre Leaf Chameleon** (*Brookesia tuberculata*) which only lives in this NP, but likely occupying a very narrow elevational range, at about 1,000m. We then saw a very bright **Boettger's Chameleon** (or the Blue-nosed Chameleon) (*Calumma boettgeri*) but a localised speciality still eluded me and it took some effort (given, yet again, the quietness of the forests) to track down an **Amber Mountain Rock Thrush** perched silently by the side of the track.



Boettger's Chameleon (or Blue-nosed Chameleon) (Calumma boettgeri)

A short night walk along the track leading up to the NP, although heavily traversed by pedestrians, produced an **Amber Mountain Fork-marked Lemur** (or **Montagne d'Ambre Fork-crowned Lemur**) (*Phaner electromontis*). The species is generally very active and this individual was no exception. They favour high trees, but the gradient of the roadway and open aspect facilitated observation. Also seen this night, an impressive **Madagascar Leaf-nosed Snake** (*Langaha madagascarophis*).



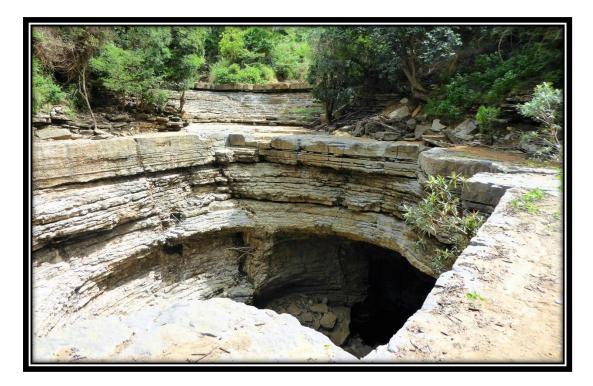
Crater Lake, Montagne d'Ambre NP



Mount d'Ambre Leaf Chameleon (*Brookesia tuberculata*)

Ankarana NP

Ankarana NP lies 70km south (2hrs drive) from Montagne d'Ambre NP in northern Madagascar. It covers a similar area to the previous reserve, some 18,000ha, but whereas Montagne d'Ambre comprises an isolated volcanic massif, of mostly basaltic rock, Ankarana NP occupies a limestone plateau. Given the nature of this underlying rock, combined with the high rainfall (2,000m per annum) the area is famed for its caves, sinkholes and serrated karst (or tsingy) topography. The plateau rises in the west to form a sheer cliff extending 25km, seen clearly from the coast road.



Sinkhole, Ankarana NP

With so much favourable habitat Ankarana is recognised as a hot spot for bats (with 16 species recorded here), but fortuitously, on the way to the caves holding Madagascar Fruit Bat (Eidolon dupreanum) and Madagascan Rousette we were able to locate an Ankarana Sportive Lemur (or Ankarana Weasel Lemur) (Lepilemur ankaranensis) peering out of its roosting hole. This is a little-studied lemur that lives within a small range of northern Madagascar. It is declining in numbers due both to increasingly fragmented or denuded habitat, but also because of increased pressure from hunting, due to the growth in the number of itinerant sapphire miners entering this region.

The walk down to the main bat cave entrance and through the cave itself is quiet strenuous, but we were rewarded with half a dozen **Madagascar Fruit Bats.** The second main cave on site holds a roost of **Madagascan Rousette**. However, we didn't enter this cave. Throughout Madagascar we met some very good naturalists and committed conservationists, but also one or two, who whilst knowing their business, didn't really respect the wildlife. The bats were clearly disturbed by our presence and we decided to leave, despite the guide's wish to pursue the bats deep into the cave.

Our hotel was located some miles from the NP, in primarily cleared country, but as it held some promising habitat, we went out that night on a hunch. Following the road, and after a search of 20 minutes or so, we found what we had been searching for, a Northern Rufous Mouse Lemur (*Microcebus tavaratra*). Only recently described and whose distribution has yet to be defined.



Ankarana Sportive Lemur



Cave Entrance to Madagascar Fruit Bat Roost

Lokobe Integrated Reserve

Lokobe Integral Reserve is located in the south-eastern part of the island of Nosy Be in the north of Madagascar. Nosy Be is a major tourist destination and is accessed either direct by air from Tana or by small speedboats which shuttle between the mainland port of Ankify Harbour and Hell-Ville on Nosy Be. The cost is 12,000 Ariary (£2.60) and the trip takes 40 minutes. The boats leave when full. Its smoother traveling in the morning, as the trade winds generally increase in the afternoons. Lokobe is the only protected area on the island and covers around 740ha, i.e. the majority of the island's remaining evergreen forest. Only a small section is open to the public, and this can be accessed for day trips, which local hotels will organise. It is also possible to stay in the local village.

One takes a dugout canoe (self-paddling optional) for the journey across the shallow bay to either Ambatozavavy or Ampasipohy village, whereupon local guides take tourists into the surrounding forest. The big draw here is the Black Lemur (Eulemur macaco) and we were shown a pair feeding close to the village. This species exhibits extreme sexual dimorphism, the chocolate-coated males contrasting with the rich, brown-coated females. Unfortunately, on Nosy Be, there persists a local trade in this beautiful species, as pets. Further on, we saw a critically endangered Hawk's Sportive Lemur (Lepilemur tymerlachsoni) the first of two spotted. Separated from Gray's Sportive Lemur (Lepilemur dorsalis) as a separate species within the last decade, it is only known from this reserve. The third lemur species I hoped to see is a localised mouse lemur. Formerly known as the Lokobe Mouse Lemur (Microcebus lokobensis) further study has given nomenclature priority as Claire's **Mouse Lemur** (*Microcebus mamiratra*). However, the roosts of this species are rarely found. To see it, one must stay overnight in one of the villages, which, had we more time, I would have done! Reptiles were well represented: a bright green Parson's Chameleon, Red-legged Girdled Lizard (Zonosaurus rufipes) Henkel's Leaf-tailed Gecko (Uroplatus henkeli) a delicately agile Madagascar Grass Snake (Mimophis mahfalensis) and a large Tree Boa (Sanzinia madagascariensis volontany). On return to our hotel a single Madagascar Rousette flew low over the trees behind our chalet.

New research indicates that Madagascar may be richer in cetaceans than previously thought, with the seas off Nosy Be a known site for **Omura's Whale** (*Balaenoptera omurai*). The Omura's Whale Project http://www.omuraswhale.org/home/#welcome is studying this rare, little known species.



Lokobe Reserve



Black Lemur (Eulemur macaco)



Hawk's Sportive Lemur (Lepilemur tymerlachsoni)

Mammal Checklist (Endemic species in bold)

Lesser Hedgehog Tenrec (Echinops telfairi)
Lowland Streaked Tenrec (Hemicentetes semispinosus)

Madagascar Flying Fox (Pteropus rufus) VU
Madagascar Fruit Bat (Eidolon dupreanum) VU
Madagascar Rousette (Rousettus madagascariensis) NT
Commerson's Leaf-nosed Bat (Hipposideros commersoni) NT
Malagasy Mouse-eared Bat (Myotis goudoti)
Major's Long-fingered Bat (Miniopterus majori)

Grey Mouse Lemur (Microcebus murinus)
Brown Mouse Lemur (Microcebus rufus) VU
Northern Rufous Mouse Lemur (Microcebus tavaratra) VU
Madame Berthe's Mouse Lemur (Microcebus berthae) EN
Grey-brown Mouse Lemur (Microcebus griseorufus)
Goodman's Mouse Lemur (Microcebus lehilahytsara) VU

Greater Dwarf Lemur (Cheirogaleus major) DD Furry-eared Dwarf Lemur (Cheirogaleus crossleyi) DD Fat Tailed Dwarf Lemur (Cheirogaleus medius) Coquerel's Giant Mouse Lemur (Mirza coquereli) EN

Eastern Fork-marked Lemur (Phaner furcifer) VU
Pale Fork-marked Lemur (Phaner pallescens) EN
Amber Mountain Fork-marked Lemur (Phaner electromontis) EN

Ankarana Sportive Lemur (Lepilemur ankaranensis) EN Hawk's Sportive Lemur (Lepilemur tymerlachsoni) CR Red-tailed Sportive Lemur (Lepilemur ruficaudatus) VU 'Ifaty' Sportive Lemur species (Lepilemur sp) White-footed Sportive Lemur (Lepilemur leucopus) EN

Eastern Lesser Bamboo Lemur (Hapalemur griseus ranomafanensis) CR Golden Bamboo Lemur (Hapalemur aureus) CR Greater Bamboo Lemur (Prolemur simus) CR

Ring-tailed Lemur (Lemur catta) EN

Crowned Lemur (Eulemur coronatus) EN
Red-bellied Lemur (Eulemur rubriventer) VU
Common Brown Lemur (Eulemur fulvus) NT
Sanford's Brown Lemur (Eulemur sanfordi) EN
White-fronted Brown Lemur (Eulemur albifrons) EN
Red-fronted Brown Lemur (Eulemur rufifrons) NT
Black Lemur (Eulemur macaco) VU

(Hill's) Black-and-White Ruffed Lemurs (Varecia variegate editorum) CR Red-ruffed Lemur (Varecia rubra) CR

Eastern Avahi (Avahi laniger) VU

Diademed Sifaka (Propithecus diadema) CR Milne-Edwards Sifaka (Propithecus edwardsi) EN Verraxu's Sifaka (Propithecus verreauxi) EN

Indri (Indri indri) CR

Aye-Aye (Daubentonia madagascariensis) EN

Fanaloka (Fossa fossana) VU Fossa (Cryptoprocta ferox) VU

Northern Ring-tailed Mongoose (*Galidia elegans dambrensis*) **Narrow-striped Mongoose** (*Mungotictis decemlineata*) **EN**

Malagasy Giant Jumping Rat (Hypogeomys antimena) EN Eastern Red Forest Rat (Nesomys rufus)
Lowland Red Forest Rat (Nesomys audeberti)
Webb's Tuft-tailed Rat (Eliurus webbi)
Black Rat (Rattus rattu)

Indo-Pacific Bottlenose Dolphin (Tursiops aduncus) DD



Common Brown Lemur (Eulemur fulvus) Analamazaotra

Reptile Checklist (Endemic species in bold)

Madagascar Tree Boa (Sanzinia madagascariensis)

Madagascar Ground Boa (Acrantophis madagascariensis)

Four-striped Snake (*Dromicodryas quadrilineatus*)

Madagascar Leaf-nosed Snake (Langaha madagascarophis)

Madagascar Night Snake (*Madagascarophis colubrinus*)

Madagascar Grass Snake (Mimophis mahfalensis)

Big-eyed Cat Snake (Stenophis sp) Rano

Lateral Water Snake(*Thamnosophis lateralis*)

Plated Leaf Chameleon (Brookesia stumpffi)

Brown Leaf Chameleon (*Brookesia superciliaris*)

Mount d'Ambre Leaf Chameleon (Brookesia tuberculata) VU

Boettger's chameleon or the Blue-nosed Chameleon (Calumma boettgeri)

Short horned or Elephant-eared Chameleon (Calumma brevicornis)

Blue-legged (or **Cryptic**) **Chameleon** Chameleon (*Calumma crypticum*)

Side-striped (or **Perinet**) **Chameleon** (*Calumma gastrotaenia*)

Bizarre-nosed Chameleon (Calumma hafahafa) CR

Snub-nosed Chameleon (Calumma nasutum)

Two-horned Chameleon (Furcifer bifidus)

Oustalets's (or Malagasy Giant Chameleon) (Furcifer oustaleti)

Panther chameleon (Furcifer pardalis)

Warty Chameleon (Furcifer verrucosus semicristatus)

Common House Gecko (*Hemidactylus frenatus*)

Southern Bark Gecko (Lygodactylus tuberosus)

Mocquard's Dwarf Gecko (Lygodactylus verticillatus)

Mocquard's Madagascar Ground Gecko (Paroedura bastardy)

Giant Madagascar Ground Gecko (Phelsuma grandis)

Madagascar Day Gecko (Phelsuma madagascariensis)

Big Headed or **Ocelot Gecko** (*Paroedura pictus*)

Standing's Day Gecko (Phelsuma standing) VU

Henkel's Leaf-tailed Gecko (Uroplatus henkeli) VU

Satanic Leaf-tailed Gecko (Uroplatus phantasticus) Rano

Mossy Leaf-tailed Gecko (Uroplatus sikorae) Man

Three-eyed Lizard (Chalarodon madagascariensis)

Madagascar Spiny-tailed Iguana (Oplurus cuvieri)

Brygoo's Girdled Lizard (*Zonosaurus brygooi*)

Karsten's Girdled Lizard (*Zonosaurus karsteni*)

Western Girdled Lizard (*Zonosaurus laticaudatus*)

Red-legged Girdled Lizard (Zonosaurus rufipes) NT

Gravenhorst's Mabuya (Trachylepis gravenhorstii) B

African Helmeted Turtle (*Pelomedusa subrufa*)

Spider Tortoise (*Pyxis arachnoides*) **CR**



Big Headed Gecko (Paroedura pictus) Kirindy



Madagascar Grass Snake (Mimophis mahfalensis) Lokobe



Panther chameleon (Furcifer pardalis) Nosy Be

Bird Checklist (Endemic species in bold)

White-faced Whistling Duck Fulvous Whistling Duck

Red-billed Teal
Hottentot Teal
Helmeted Guineafowl
Madagascar Partridge*

Little Grebe

Greater Frigatebird Long-tailed Cormorant

Hamerkop Grey Heron Purple Heron Squacco Heron Black Heron

Madagascar Pond Heron EN

Great Egret Little Egret Cattle Egret

Madagascar Sacred Ibis EN Madagascar Harrier Hawk Madagascar Harrier VU Frances's Sparrowhawk Madagascar Sparrowhawk Madagascar Buzzard Subdesert Mesite VU White-breasted Mesite VU

Madagascar Wood Rail Common Moorhen Red-knobbed Coot Black-winged Stilt Kittlitz's Plover Common Greenshank

Whimbrel Sanderling

Madagascar Buttonquail*
Sooty Tern

Caspian Tern
Greater Crested Tern
Lesser Crested Tern
Rock Pigeon

Madagascar Turtle Dove*

Namaqua Dove

Madagascar Green Pigeon

Madagascar Blue Pigeon

Giant Coua Coquerel's Coua Red-breasted Coua Red-fronted Coua 'Green-capped' Coua Running Coua Crested Coua Blue Coua

Madagascar Coucal
Madagascar Scops Owl
White-browed Owl
Collared Nightjar
Madagascar Nightjar
Madagascar Spinetail

Alpine Swift

'Madagascar' Black Swift
African Palm Swift
Madagascar Kingfisher
Madagascar Pygmy Kingfisher

Madagascar Bee-eater

Short-legged Ground Roller VU Long-tailed Ground Roller VU

Cuckoo Roller Madagascar Hoopoe Madagascar Kestrel Banded Kestrel Sooty Falcon

Greater Vas Parrot Lesser Vasa Parrot Grey-headed Lovebird*

Velvet Asity

Common Sunbird-Asity
Archbold's Newtonia
Common Newtonia
Dark Newtonia
Tylas Vanga
Red-tailed Vanga
Chabert Vanga
Blue Vanga
Ward's Vanga
Hook-billed Vanga

Rufous Vanga Helmet Vanga VU White-headed Vanga Lafresnaye's Vanga

Madagascar Cuckoo-shrike

Crested Drongo

Madagascar Paradise Flycatcher

Pied Crow

Madagascar Lark
Brown-throated Martin
Mascarene Martin
Madagascar Bulbul

Madagascar Brush Warbler

Madagascar Swamp Warbler

Thamnornis

Subdesert Brush Warbler White-throated Oxylabes Long-billed Tetraka Spectacled Tetraka Grey-crowned Tetraka NT

Common Jery Green Jery

Stripe-throated Jery
Madagascar Cisticola
Madagascar White-eye
Madagascar Magpie-robin
Amber Mt Rock Thrush EN
Madagascar Stonechat
Madagascar Starling
Common Myna
Souimanga Sunbird

Madagascar Green Sunbird

Madagascar Wagtail
House Sparrow
Nelicourvi Weaver
Sakalava Weaver
Madagascar Red Fody*

Forest Fody

Madagascar Munia

Black Kite

^{*}native species, which have been introduced elsewhere



Madagascar Pygmy Kingfisher (Corythornis madagascariensis) Masoala NP



Amber Mountain Rock Thrush (Monticola sharpei erythronotus) Montagne d'Ambre NP

Please note that this report is a personal account. I have tried to ensure information is correct as at Sep 18. Any errors are mine.

Keith Millar