

# Madagascar

*A Unique Natural Heritage*

A Greentours Tour Report

23<sup>rd</sup> October to 6<sup>th</sup> November 2017

Led by Paul Cardy and Rija

Daily report and systematic lists by Paul Cardy

## **Day 1 Tuesday 24<sup>th</sup> October**

### **Arrival, Antananarivo**

I had arrived from Reunion the previous day. Rija, our local guide, met me at the hotel and we drove to the airport to meet the group. All arrived on time, and after sorting a few practicalities such as SIM cards and changing money, we were on our way. Our hotel was situated amid a rare oasis of greenery in Antananarivo, only a short drive from the airport through bustling streets.

We arrived late afternoon and after settling into the comfortable rooms we met for a stroll around the leafy grounds. This immediately yielded several endemic birds. Madagascar Scrub Warblers worked through the vegetation and Red Fodies were much in evidence. Madagascar Turtle Dove, Madagascar Kingfisher, Madagascar Bulbul, Madagascar White-eye, Madagascar Magpie-robin, Souimanga Sunbird, Madagascar Mannikin, and Madagascar Wagtail were all seen.

At dusk the distinctive calls of Madagascar Nightjar began and we had fine views of several perched and flying birds. Barn Owl called and those of us still out saw one in flight over the trees.

Dinner was enjoyed in the pleasant restaurant and we looked forward to a productive tour.

## **Day 2 Wednesday 25<sup>th</sup> October**

### **To Toliara and Ifaty**

Our flight to the south west was not until early afternoon so we had the morning to further explore the gardens, and enjoy a leisurely breakfast. As well as the birds already seen the previous evening were Madagascar Coucal, Madagascar Hoopoe, and Madagascar Bee-eater.

Among the butterflies were the endemic *Papilio epiphorbas*, the widespread *Papilio demodocus*, *Catopsilia florella*, *Mylothris phileris*, and the striking blue *Junonia rhadama*. The skipper *Eagris sabadius* frequented one stretch of hedgerow where I'd found it the previous day. Other skippers were *Borbo gemella* and *Parnara naso*. The attractive lycaenid *Leptomyrina phidias* was associated with *Kalanchoe*.

A highlight was our first chameleon in a tree near reception, Oustalets's Chameleon. We would see

plenty more of this species!

Late morning saw us checking out and making the short drive back to the airport, to take the only internal flight of the tour, to the south west and the spiny forest around Toliara. My was the domestic terminal busy today! Check in took some time and I did my best to disguise just how much luggage I was carrying from the very officious check in staff! This included my handing out various books to anyone who could fit them into their luggage. I still had to pay for the second case however. Having gone through all this with departure time looming, it was frustrating that once on the plane we sat on the tarmac for some time.

Finally in the air, after about an hour we arrived in the south west to fine hot weather. Keen to be in the field, having met our driver we speedily loaded up the bags, and we were soon on our way to the nearby arboretum which was an ideal spot to introduce us to the flora and fauna of the dry south west. Kittlitz's Plover, Madagascar Lark, and Madagascar Cisticola were seen as we drove in. First we ate quickly our picnic lunch in the shade of the cafe. I was pleased to find the South Western Madagascar Succulent book on sale in the small shop. Namaqua Doves were a feature.

We took a short walk through the gardens. The endemic Stripe-throated Jery, Madagascar Green Sunbird, and Souimanga Sunbird were seen closely. We were soon admiring many of the typical plants of the spiny forest, especially the remarkable endemics *Didieria madagascariensis*, *Didieria trolii*, *Alluaudia procera*, and *Alluaudia montagnacii*. Long put in the endemic family Didieraceae, they are now included in the Portulacaceae. Here were *Euphorbia tirucali*, *Euphorbia stenoclada*, *Jatropha mahfalensis*, *Cynanchum perrieri*, and *Mimosa delicatula*.

Madagascar Paradise Flycatcher was admired. Butterflies on the wing were *Colotis guenei*, *Colotis evanthe*, *Gideona lucasi*, *Catopsilia florella*, *Acraea turna*, *Eurema brigitta*, and *Zizula hylax*.

Madagascar Turtle Dove and Common Jery continued the birds. Two dry country skink species, *Tracheloptychus madagascariensis* and *Trachylepis aureopunctata* usually much in evidence here, were surprisingly not seen today. We did though see the lizards *Oplurus cyclurus* and *Phelsuma mutabilis*.

Plants continued with *Zygophyllum depauperatum*, *Delonix floribunda*, *Euphorbia oncoclada*, *Operculicarya pachypus*, *Pachypodium lamerai ramosum* in flower, *Commiphora simplicifolia* with peeling bark, *Cyphostema elephantopus*, and the amaranth *Henonia scoparia*.

Our first lemur, a Grey-brown Mouse-lemur, was a highlight, although it was rather cryptically positioned! Madagascar Kestrel and Lesser Vasa Parrot continued the endemics.

Here was a captive breeding programme of the endangered endemic Radiated Tortoise and Spider Tortoise. Nesting Crested Drongo was followed by a Commerson's Leaf-nosed Bat roosting in a building. Unfortunately we had to tear ourselves away from this fine place, as it would soon be dark and we wanted to get to the hotel as much as possible in the light.

We headed into the town of Toliara and took the now excellent paved road (on my last visit a very rough sandy dirt road) that leads north along the coast. The first of several *Pharmacophagus antenor*, a very impressive endemic swallowtail, was on the wing.

Our hotel was ideally situated just inland from the Mozambique Channel, with several things of interest in and around the leafy grounds. The rooms were very comfortable and we regrouped for a very good and welcome dinner. Madagascar Nightjar was still with us.

### Day 3 Thursday 26<sup>th</sup> October

### Ifaty

The spiny forest was but a short journey from our hotel, and we travelled there in zebu drawn carts, a fine experience in the early morning light under clear blue skies. Two or three to each, the carts got us into the forest quicker than would the bus, and much further along the narrow densely vegetated entrance track. This weird and wonderful habitat was characterised by numerous *Didierea madagascariensis*, the baobab *Adansonia rubristipa*, *Pachypodium geayi* in fruit, the very spiny indeed *Euphorbia stenoclada*, *Aloe divaricata*, and many other spiny or succulent plants, or species with swollen trunks. *Delonix floribunda* was in fine bloom.

Local trackers met us on arrival, and they located some of the very special endemics that the area boasts. Before long we were enjoying prolonged views of Long-tailed Ground Roller, with all getting a superb look at this fine species, extremely closely allowing some great photos. Representing a new bird family for most of the group, later followed a male Subdesert Mesite and later still a female, seen superbly in the telescope.

Madagascar Buttonquail crept through the scrub, and Stripe-throated Jery and Souimanga Sunbirds called from atop trees. Madagascar Bee-eater was common. A Sakalava Weaver colony had many nests and attendant birds, the species common here. A perched Greater Vasa Parrot allowed fine views, and this and Lesser Vasa Parrot were seen in flight. During our walk we had various encounters with the marvellous Sickle-billed, Red-tailed, and Hook-billed Vangas. Running Coua and Crested Couas were both seen. Madagascar Lesser Cuckoo was a real feature early on with its call commonly heard and finally the species seen in the afternoon. Madagascar Coucal called often too and roosting Madagascar Nightjar was seen superbly well.

In the air was Madagascar Harrier Hawk and we saw a fine closely perched Madagascar Sparrowhawk. Also seen this morning were Madagascar Kestrel, Crested Drongo, Thamnornis Warbler, and Madagascar Paradise Flycatcher.

Two of the impressive gecko *Blaeseodactylus sakalava* were found on trees, and both *Lygodactylus verticillatus* and *Lygodactylus tuberosus* were here. Other lizards were Three-eyed Lizard *Chalarodon madagascariensis*, *Oplurus cyclurus*, and *Tracheloptychus petersi*. A characterful salticid spider was seen.

Butterflies were not numerous, but the commonest species was the beautiful endemic 'crimson tip' *Colotis zoe*. Also on the wing were *Gideona lucasi*, *Pinacopterix eriphia*, and African Monarch, and *Pharmacophagus antenor* occasionally drifted over.

The legume *Chadsia grevei* was numerous in flower. Plants continued with *Combretum grandidideri* with tubular red flowers, *Salvadora angustifolia*, the amaranth *Henonia scoparia*, *Euphorbia laro*, *Euphorbia pervilliana*, and the toxic legume *Cordila madagascariensis*.

Towards the end of the walk we had fine views of a perched pair of Grey-headed Lovebirds, and a young Mahafaly Sand Snake.

By 9am the day was warming up markedly and we headed for the comforts and shade of the hotel.

Most of us soon headed out again to explore the coast, especially in search of Madagascar Plover. This endemic we soon located and seen very closely. Other waders here included Kittlitz's Plover, White-fronted Plover, Black-winged Stilt, Whimbrel, Common Sandpiper, and Ruddy Turnstone. Caspian Tern was the only tern of the tour. Another highlight was the endemic Humblot's Heron, and Madagascar Larks were seen closely.

There was time for a rest in the middle of the day, and we enjoyed a good lunch, watching the antics of day-geckos, *Phelsuma modesta*, on the dining room walls.

In the afternoon it was back in the zebu carts to the spiny forest. We of course saw many of the same things again, but a good selection of new species too. Subdesert Brush Warbler was seen closely, and Hook-billed Vanga, Red-tailed Vanga, and Sickle-billed Vanga were again seen very well, followed by White-headed Vanga and Chabert Vanga. Archbold's Newtonia was seen well too. *Oplurus cyclurus* had a Hissing Cockroach prey. Madagascar Spinetails sped close overhead. There was perched and then flying Madagascar Harrier Hawk. A very small mantid and a very small emerald moth were found.

The endemic pierid *Belenois grandidieri* was on the wing. Day geckos continued with *Phelsuma mutabilis* and the larger *Phelsuma standingi*. An impressive scorpion was admired, and I found a mantid devouring the impressive skipper *Coeliades ernesti*. Among the many plants seen were the white flowered *Delonix adansonoides*, *Combretum coccineum*, *Givotia madagascariensis*, *Sideroxylon* sp., *Cynanchum perrieri*, *Alluaudiopsis marnieriana*, and *Adenia olaboensis*.

We stayed out after dark for a short night walk in the spiny forest. This was very productive with three species of lemur seen. The trackers first showed us the newly described Black-shouldered Lepilemur (Sportive Lemur), soon followed by White-fronted Lepilemur, then Grey Mouse Lemur.

Lesser Hedgehog Tenrec was a superb find, as well as impressive Hissing Cockroaches, and a 'kung fu' bush cricket, one bizarre life form after another.

## **Day 4 Friday 27<sup>th</sup> October**

## **Ifaty, Zombitse to Isalo**

Something of a lie-in this morning breakfasting at 0700 and heading off at about 0800. 'Giant Swallowtail' was already on the wing in the gardens. The much improved road allowed fast progress.

After a refuelling stop in Toliara, and collecting our lunches, leaving the dry coastal scrub behind we climbed up onto a plateau that had mostly been converted to agriculture. The journey took us through many villages, with Yellow-billed Kites common.

After a few hours on the road, the island of forest at Zombitse eventually appeared in front of us.

Pulling into the car park we could immediately hear the evocative cries of the incredible cuckoo-roller, a bird we were shortly to see very well. It was already time for lunch, eaten in a shady grove of trees, with many butterflies on the wing. The rangers pointed out a roosting Zombitse Sportive Lemur.

The gecko *Lygodactylus tolampyae* was found, and among the plants were the baobab *Adansonia za*, *Euphorbia enterophora*, an *Evonymopsis*, a *Cissus* with red flowers, and *Dalechampia madagascariensis*. Superb flowering *Pachyposium rosulatum* was a highlight. Impressive homopteran bugs, *Phromnia rosea*, clustered on branches, the nymphs with wispy white ornamentations.

With our guides we headed off for what would be a very productive walk. Butterflies were everywhere and we added a large number of species to our trip list, including the swallowtails *Papilio dardanus*, *Papilio epiphorbas*, *Graphium evombar*, *Graphium endochus*, and *Graphium cyrnus*. *Leptosia alcesta* flew at the shady forest edge and other pierids included *Colotis evanthe*, *Appias sabina*, *Dixeia charina*, and *Belenois grandidieri*. Lycaenids were represented by *Hemiolaus ceres* and *Hemiolaus cobaltina* both endemic. Nymphalids included *Junonia rhadama*, *Junonia orithya*, *Neptis kikedeli*, and *Byblia anvatarata*. The skipper *Coeliades ernesti* was a pleasing find, today not victim to a mantid! *Acraea lia*, *Acraea encedon* and *Acraea obeira* were much in evidence. A *Uteheisa*, a beautiful footman, was admired.

An early highlight was fantastic views of Verreaux's Sifaka, first a group of six, then across the road more in the trees. Giant Coua was seen very closely. The guides showed us the roost of another Zombitse Sportive Lemur. Another highlight was a few of the fine orchid *Aerangis decaryana* in bloom. The lizards *Trachylepis gravenhorstii* and *Phelsuma mutabilis* were here and the chameleon we saw here was of course Oustalet's.

An emperor dragonfly, *Anax* species, patrolled a forest trail, and there were several of the satyrid *Henotesia narcissus fraterna*. This is one of the few species not limited to Madagascar, occurring in other subspecies on Mauritius and Reunion.

Birds continued with Coquerel's Coua heard, Crested Coua seen, Greater Vasa Parrot, good views of Cuckoo Rollers, and Common Jery. We were especially keen to see the very local endemic Appert's Tetraka, and the guides put in much time locating them for us today, resulting in fine close views of three. White-browed Hawk-Owl was another highlight. A *Charaxes* sped along the track but was not seen well enough to assign to species.

This was a great site but sadly we had to tear ourselves away and continue our journey, driving east, through an area dominated by 'Wild West' sapphire diggings, towards our hotel. Set amid rocky outcrops surrounded by picturesque palm-studded grassland the hotel was quite special.

We enjoyed another excellent dinner.

## **Day 5 Saturday 28<sup>th</sup> October**

## **Isalo NP**

After a very good breakfast we drove to the nearby Isalo National Park. First we stopped in town to pick up our (very voluble) guide and pay the entrance fees, and were soon on our way.

Driving across grasslands with fine views of the rock formations in the park, Madagascar Stonechat was seen. Arriving at the site we set out on foot to walk an attractive and productive short trail alongside a small stream towards a remnant block of forest. Along the path were many dragonflies, a selection of reptiles and a variety of flowering plants. Among the Odonata were *Crocothemis divisa*, *Orthetrum abbotii* and *Zygonyx elisabethae*. Plant wise we saw a small flowered species of *Lobelia*, the endemic *Aloe isolanensis*, the asclepiad *Mascarenhausia lisianthiflora* in flower, the attractive yellow flowered bindweed *Merremia medium*, *Cassytha cilolata*, and *Breonadia salicina*. Among legumes were *Chadsia flammea* and *Crotalaria grevei*. There was also *Pandanus* (some 100 occur in Madagascar).

Forest Rock Thrush was the bird we most hoped to see, and it was seen well atop a rock. White-headed Vanga was here too. The snake *Dromicodryas bernieri* was on a branch over the track, and the swallowtail *Graphium cyrnus* was rather common along the trail.

Once in the shade of the forest block was a very close Oustalet's Chameleon (still every chameleon we saw was this species!). Nesting Madagascar Paradise Flycatcher was photographed, and *Abrus precatorius* was in fruit.

Butterflies included *Heteropsis ankaratra*, *Heteropsis narcissus fraterna*, *Byblia anvata*, *Junonia orithya*, *Gideona lucasi*, and Long-tailed Blue. A 'snout bug' and a superb leaf mantid were found. A pair of roosting Torotoroka Scops Owl was a highlight, and Madagascar Hoopoe was seen.

Ring-tailed Lemurs were another highlight, with a large troop active around the campsite. With them was a lone Verreaux's Sifaka, the only one remaining from its troop after a fire claimed its companions. Down by the stream were Red-fronted Brown Lemurs.

Our second snake today, this one in the water, was *Bibilava lateralis*. I was pleased to find a terrestrial orchid, *Cynorkis graminea*, by the beautiful river here and there were several butterflies including *Neptis kikideli* and, under the trees, *Aterica rabena*. *Papilio delalandei* flew gracefully in the shade. *Leptotes rabefaner* mud puddled, and perched *Charaxes antamboulou* was seen well in the telescope. There was a selection of odonata.

A yellow flowered *Emilia*, a creeping blue *Commelina*, fine *Cyperus* spp., and a four-pinnate fern were among the plants. Two superb *Heterixalus luteostriatus* was a highlight, a beautiful frog. Nearby was a Comet Moth cocoon. Butterflies continued with *Eurema brigitta*, *Eurema desjardinsii*, and another *Charaxes* that did not settle. An *Acrioptera* stick insect was here, and another mantid.

The walk back was rather warm, the sun shining relentlessly down on us from a blue sky.

After lunch back at the hotel the afternoon was left for free time to enjoy the fine hotel environs. The skipper *Coeliades forestan* was here. In the evening we met to catch up with the checklists before dinner.

## Day 6 Sunday 29<sup>th</sup> October

## to Ranomafana

Today was largely a transit day, traveling the lengthy distance between Isalo and Ranomafana National Park.

It was farewell to the fine lodge. We spent most of the day in the bus, enjoying the transition from a sandstone to a granite geology and some impressive resultant scenery. We did of course make a number of stops along the way. A stop to scan for the elusive Madagascar Harrier in the grasslands was unsuccessful. This and Reunion Harrier are now both treated as full species, and it's worth noting that the latter is much easier to find on its native island than the Madagascar species is here. There were a few interesting plants hidden in the initially barren looking grasslands.

A bright green male Oustalet's Chameleon was on the road, and Madagascar Black Swifts, with some Alpine Swifts were in the air.

Lunch was eaten at a small community run reserve. As we drove in Ian spotted a fine chameleon from the bus, of course it was Oustalet's! Later another was seen.

The picnic was substantial and welcome. Nearby we had great views of Ring-tailed Lemurs, a large troop with a number of young individuals. The butterflies here were numerous and included *Acraea ranavalona*, *Acraea zitja*, *Acraea mahela*, *Papilio epiphorbas*, *Belenois antsianaka*, *Gnophodes betsimena*, *Colotis evanthe*, *Leptosia nupta*, *Leptosia alcesta*, and *Heteropsis ankaratra*. There were several blues and skippers, including a mystery species!

There was a selection of plants at the forest edge, among them species of *Ranunculus*, *Gomphocarpus*, *Hibiscus*, and a *Heliotropium* with purple flowers. Mascarene Martins were in the air, and Hammerkop was seen. There was an attractive emerald moth.

Back on the road we negotiated the sprawling town of Fianarantsoa.

Finally leaving the main highway a road took us down to the rainforest of Ranomafana, quite a contrast. Blue Coua was seen as we drove. We arrived in the dark and settled in before enjoying dinner.

## Day 7 Monday 30<sup>th</sup> October

## Ranomafana

A remarkable day began with a 6am breakfast and a 6.30am departure. We awoke to persistent light rain, following rain all night. Sadly few moths had been attracted by the hotel lights. A few minute drive took us to the reserve entrance.

Meeting up with our guide, and all well protected against the rain, we set out on foot into the fine forest of Ranomafana. Amazingly we spent six hours on foot here this morning, and the time sped past.

Helmeted Guinea fowl in flight was something of a surprise here.

A day of many sightings. Lemur wise things began with Golden Bamboo Lemur, one watched very closely and a fine start to the day. The species was only discovered in 1985, is endemic to the park, and the reason for its designation. We then located another, this time near a Greater Bamboo Lemur, a very rare species. Later as we walked, Seth spotted Red-fronted Brown Lemurs in the canopy. Black and White Ruffed Lemurs called, and one was seen briefly.

Belonging to the Melastomataceae, the purple flowered *Dichaetanthera crassinodis* was much in evidence. Frogs called in ideal weather for them but amazingly we saw not a single one this morning, whereas usually several are seen here.

Birds included White-throated Oxylabes, Grey-crowned Tetraka, Spectacled Tetraka, and Madagascar Wood Rail briefly on the trail. Glimpses of Pitta-like Ground Roller were had, and we saw both sexes of Velvet Asity. Common Sunbird Asity was heard.

Very few satyrids were on the wing, but we did see *Henotesia undulans* and *Henotesia obscura*. We were pleased to see perhaps two species of the riordinid *Saribia*.

The epiphytic orchid *Bulbophyllum baronii* had sprays of delicate pale yellow flowers and the carrion flower *Tambourissa* was highly distinctive. Among the many other plants were the epiphytic cactus *Rhipsalia baccifer*, species of *Peperomia* and *Rubus*, the shiny fruits of *Dianella ensifolia*, the invasive *Clidemia hirta*, and *Strongylodon craveniae*.

At the end of the walk was the two horned chameleon *Furcifer balteatus*, seen from the bridge.

Lunch back at the hotel was followed by a short break.

In the afternoon we drove up to the waterfall and strolled along the quiet road. Both epiphytic and terrestrial *Kalanchoe* were here, and a fine selection of ferns. The gentian *Exacum quinquenervium* was in impressive flower. More of the *Bulbophyllum baronii* was in bloom. Of particular note was the beautiful orchid *Cynorchis lowiana*, the flowers of which mimic an *Impatiens*. There was another species of *Cynorchis*, fine *Oenea rosea*, and an *Aerangis*. The *Eriocaulon* here was probably *Eriocaulon bifistulosum*. A small off white *Geranium* and a species of *Ranunculus* were here, and an orange flowered *Emilia*.

A hesperiine skipper, probably *Fulda coroller*, on an *Ageratum* had probably sat in the same position all day in the cool weather! In a roadside cave were many bats, a species of *Miniopterus*. Madagascar Lesser Cuckoo called and was seen. The chameleons *Calumma nasutum* and *Calumma crypticum* were found and there was the usual selection of invertebrates.

We waited until dusk, some in the warmth of the bus! Soon it was dark and we assembled at a site for Brown Mouse Lemur to watch these tiny primates come to feed on banana soaked trees. Almost immediately we had fine close views. Cold and damp, everyone was pleased to return to the hotel rather than the planned night walk.

## Day 8 Tuesday 31<sup>st</sup> October

## Vohiparara (Ranomafana NP)

The morning was spent in another part of Ranomafana where we saw a wealth of fine things. The forest at Vohiparara has rather easier trails than those we'd walked yesterday!

Whilst a forgotten camera was retrieved from the hotel Seth and I walked the road and saw Blue Vanga, a pair of Ward's Vanga, Red-tailed Vanga, Green Jery, and Madagascar Green Sunbird.

At Vohiparara in fine sunlight a Forest Fody was a good start. An *Angraecum* was just going over, and we found an *Aerangis* in flower. The riodinid *Saribia* was here. Rija pointed out Madagascar Cuckoo Shrike, and Seth pointed out Long-billed Bernieria. Female Velvet Asity was seen well. At least two species of *Kalanchoe* were here, and *Dianella ensifolia*.

The call of Milne-Edwards Sifaka diverted attention and once located fine prolonged views were enjoyed of five of this beautiful lemur.

There was a fine selection of invertebrates included a remarkably camouflaged orthopteran and a superb spiny grey/green weevil that I found. *Calumma oshaughessyi* was our next chameleon. An amazing damsel with flattened leg segments was *Proplatynemys alatipes*, Booted Featherleg (thanks to Callan Cohen for the id).

Frogs were a feature of the walk today, with all of the following found: *Mantidactylus melanopleura*, *Gephyromantis asper*, *Mantidactylus majori*, and *Guibemantis pulcher* in *Pandanus*. Among satyrids were *Heteropsis vola* and *Heteropsis subsimilis*. Eastern Red Forest Rat was seen on the forest floor.

The morning ended with a superb bird flock comprising Pollen's Vanga, Tylas Vanga, Blue Vanga, Ward's Vanga, Blue Coua, Nelicourvi Weaver, Long-billed Bernieria remarkably close, Green Jery, Madagascar Paradise Flycatcher, Crested Drongo, and Seth finally caught up with Rand's Warbler.

At our hotel was a superb orange and white thorn spider. The sun appeared fully at lunchtime, the sky blue. Several butterflies were seen around the hotel, notably the rare *Heteropsis fuliginosa* found by Peta and Ian, and white phase Paradise Flycatcher was seen.

As we headed out in the afternoon a Ring-tailed Mongoose crossed the road speedily, seen by some of us.

We stopped along a little used track and strolled leisurely. Butterflies still on the wing were *Eurema desjardinsii* and *Strabena triophthalma*, there was a 'geometrician' moth, and the fern *Pellaea viridis*. A target here was the beautiful frog *Mantella baroni*. The walk was punctuated by a stunning lime green lepidopterous larva, a selection of frogs, a violet longhorn beetle, an *Hypoxis* with hairy leaves, and the satyrid Common Evening Brown.

Unfortunately rain came again, but we did see Madagascar Blue Pigeon, new for us. Considering the weather once more the hoped for night walk was cancelled. The gecko *Ebenavia inguis* was seen at the hotel.

## Day 9 Wednesday 1<sup>st</sup> November

## To Antsirabe

It was time to head north, and our journey took us back across the central grasslands as we headed towards our next hotel.

First thing of note was a Purple Heron in the Vohiparara paddies and whilst we were watching this Rija called Red-fronted Coua on the other side of the bus.

Now in fine sunshine we had a stop before we left the forest, along a sunny forested road at the edge of the park. A number of butterflies were flying, among them *Precis andremiaja*, *Precis goudotii*, *Strabena spp.*, *Fulda coroller*, and *Neptis kikiideli*. Rand's Warbler sang atop conifers and Madagascar Buzzard flew over.

Among many other things of interest were a blue libellulid with blue wing bases, an arctiid larva on *Verbena bonariensis*, various orthopterans, a fine thorn spider, the skink *Trachylepis gravenhorstii*, both yellow and orange flowered *Emilia* species, a very small *Hypericum* in flower, a selection of sedges, more *Hypoxis*, and a *Desmodium*. There were two terrestrial orchids in flower, robust epiphytic *Bulbophyllum henrici*, and beautiful *Jumellea teretifolia* with very long spurs.

Back in the deforested highlands seen en route were Madagascar Kestrel and Madagascar Stonechat, the latter now split as a full species.

A scheduled break by some abandoned paddy fields, where remains a pocket of natural vegetation, produced several beautiful Jewel Chameleons, as well as *Oplurus quadrimaculatus*. Madagascar Stonechat was seen closely. Among Odonata here were Madagascar Emerald, Madagascar Blue Emperor, and Madagascar Bluet. A robust *Aristea* was in flower, there were species of *Senecio* and *Erica*, *Phytolacca americana*, *Buddleia madagascariensis*, an *Osmunda* like fern, and a *Sisyrrinchium*. Rainbow Grasshoppers were impressive and Long-tailed Blue was on the wing. Red-billed Teal were on the pools.

A good lunch was eaten in the gardens of a pleasant tourist hotel in Ambositra.

Our journey took us through Uapaca woodland. Near Antsirabe was our hotel, run by an NGO that helps local children, and set amid expansive grounds. Madagascar Manikins were much in evidence in the gardens.

Before dinner we caught up with the checklists. After an enjoyable substantial dinner, Seth and I traced the calling scops owls and had good views in the pines. This was grey phase Torotoroka Scops Owl.

## Day 10 Thursday 2<sup>nd</sup> November

## Antsirabe to Andasibe

On my last visit here the flower beds had attracted a number of butterflies in the morning but today there were none, presumably due to the overcast skies. This was another traveling day. First we made a few stops in bustling Antsirabe to sort practicalities, and Rija demonstrated his excellent queue

jumping abilities!

A stop late morning in unprepossessing habitat actually proved very productive, especially for butterflies. Here flowers were grown to supply markets in Antananarivo. Butterflies included Painted Lady, *Papilio demodocus*, *Acraea serena*, *Acraea zitja*, and *Strabena tamatave*. There were some distinctive dragonflies. In flower was a *Cleome*, and *Phytolacca americana*. There were several of the impressive large plated lizard *Zonosaurus ornatus*.

An unusual lunch was eaten in a small restaurant south of Tana, and I was disappointed nobody opted for pizza! Here we said goodbye to our excellent driver and transferred to two 4WDs as the larger vehicle would have had difficulty in getting us to Mantadia.

As we bypassed the capital there were a selection of egrets on paddies, and Squacco Heron. Later two Hammerkops were seen in a paddy. A short stop yielded damsels, a very small coppery Buprestid, and a black and white pyralid. Today there were no Madagascar Pratincoles at the river stop, although Brown-throated Martins were seen.

We arrived early evening at our hotel, new since my last visit, with comfortable large rooms, and fine forest behind. The drives to and from the hotel took us through the narrow main street of bustling downtown Andasibe, small shops lining the road.

Rainforest Scops Owl called from the forest.

## Day 11 Friday 3<sup>rd</sup> November

## Andasibe NP

A supremely productive morning was spent in Amalozotra reserve not far from our hotel. We were the first visitors today. *Guibemantis* frogs were found in the pandanus at the HQ, and *Phelsuma lineata* was here.

Our local guide led us along the forest trails, with many highlights along the way. Our first lemur experience was Grey Bamboo Lemur. Nearby was roosting Rainforest Scops Owl. Blue Coua was seen well, and Madagascar Buzzard and Madagascar Sparrowhawk were perched. There were nesting Crested Drongo and Madagascar Wagtail. Crossley's Vanga was heard, and Rand's Warbler and Stripe-throated Jery called together. Common Newtonia was seen and in the air were Madagascar Spinetails. By the small lake was Striated Heron, and on the water Red-billed Teal. Spectacled Tetraka was here, Nuthatch Vanga called, and a highlight was Collared Nightjar seen very closely.

Later was a memorable experience as we stood below Indri, the largest of the living lemurs. Interestingly all recently extinct taxa of lemur were larger than this species. We had fine views and when they started calling the volume was incredible. Their calls carry over several kilometers and groups this far apart respond to each other. They called now and again all morning. There followed a troop of some ten Common Brown Lemurs, perhaps not quite as charismatic, but still fascinating animals. There was also feeding sign of Aye-Aye on one tree.

Among reptiles were the large *Phelsuma madagascariensis*, and the rare *Lygodactylus miops*. Frogs

included *Guibemantis pulcher* in *Pandanus*, and *Aglyptodactylus madagascariensis*. Sue spotted a fine red millipede.

Later in the morning butterflies were taking to the wing and included *Papilio oribazus* and several *Mylothris phileris*. A bewildering selection of satyrids on the forest floor included *Heteropsis ankova*, *Heteropsis undulans*, *Heteropsis subsimilis*, *Heteropsis iboina*, *Heteropsis strigula*, and *Strabena ibitina*.

Among a fine selection of invertebrates were various bugs, a good number of interesting spiders, fine lepidopterous larvae, and snails.

The orchid *Oeonia rosea* was in attractive flower, whilst the almost leafless *Microcoelia* was not, and a robust spike of *Bulbophyllum* was in bud. Towards the end of the walk was a selection of angraecoid orchids rather high in trees, including *Angraecum viguieri* with large orange tinged flowers and the white *Angraecum compactum*.

The middle of the day was spent back at the hotel. In the afternoon we visited a small orchid garden. A series of superb animals began with Madagascar Long-eared Owl in pines of which we had fine views. There followed a female Parson's Chameleon, and the tiny *Brookesia superciliaris*. The beautiful frog *Scaphiophryne marmorata* was in leaf litter, and later I found another on a tree trunk. A highlight was the remarkably camouflaged Mossy Leaf-tailed Gecko. A robust stick insect was here too. Chameleons continued with *Calumma gastrotaenia* and *Calumma brevicorne*. Among orchids in flower were *Grammangis ellisii* and *Angraecum compactum* in flower. At dusk Madagascar Malachite Kingfisher was seen at the pond's edge.

After dark we first glimpsed Goodman's Mouse Lemur, and had better views of several Furry-eared Dwarf Lemurs, and the attractive frog *Boophis bottae*.

## Day 12 Saturday 4<sup>th</sup> November

## Mantadia NP

Today we visited the fine forest of Mantadia National Park. At the first stop was Madagascar Blue Pigeon. At the forest edge along the track were many butterflies including *Junonia eurodoce*, *Neptis saclava*, *Acraea masamba*, *Acraea dammii*, and *Appias sabina confusa*. Those of us in the second vehicle saw the endemic Map Butterfly. Highlights were the impressive *Salamis anteva* and *Protogoniomorpha anacardii*. Among many satyrids were *Heteropsis vola*, *Heteropsis iboina*, *Heteropsis ankova*, *Heteropsis strigula*, *Heteropsis subsimilis*, *Strabena smithii*, and *Strabena ibitina*. A *Strabena* flew straight into the mouth of a *Nephila*! Among a selection of skippers was an attractive species of *Hovala*. An emperor dragonfly patrolled the track and an orange ichneumon with black pattered wings was seen.

The day gecko *Phelsuma quadriocellata* was new for us. *Mantidactylus melanopleura* was here and at least one other species of the genus. I took to turning over stones and amazingly under the first was a small snake, although this awaits identification.

Lesser Vasa Parrot was seen. Black and White Ruffed Lemur was heard and finally tracked down in

the forest. One of our main target species here, the beautiful Diademed Sifaka was seen closely. Indris called and another Grey Bamboo Lemur was seen. The orchid *Oeonea rosea* was again in flower as was a species of *Piper*. The endemic swallowtail *Papilio oribazus* was on the wing. Madagascar Crested Ibis on the nest was a highlight. Invertebrates included two very camouflaged stick insects, and a *Scolopendra* like centipede. The red stemmed fern common here was *Odontosoria melleri*.

Lunch was eaten by a small lake in the forest where Madagascar Little Grebe and the more prosaic Moorhen were on the water. Broad-billed Rollers were in the tree tops. At last we caught up with Madagascar Swamp Warbler. Malagasy Rocket Frog was in the fringing vegetation, and the robust *Zonosaurus madagascariensis* was here.

Back on the track were now a number of mud puddling *Leptotes rabefaner*. The gecko seen here was *Microscalabotes bivittis*.

## **Days 13 and 14 Sunday 5<sup>th</sup> and Monday 6<sup>th</sup> November Andasibe and Departure**

A fine morning saw us saying farewell to the helpful staff at the excellent hotel, Indris calling from the adjoining forest. *Precis andremiaja* flew in the gardens.

I thought it a good idea to make a quick stop at the HQ to check if the Madagascar Tree Boa was there today, one last chance, and this proved the right decision as there it was and we had close views of this sluggish snake basking in the grass. It had a distinctive violet sheen. *Catochrysops scintilla* was on the wing.

It was hot today. A fine day continued as we also caught up with Madagascar Pratincole, one perched on a boulder in the river.

We ate lunch in the shade of some village trees where there were several dragonflies.

Having arrived in Tana, in the centre of town we visited an oasis of vegetation and two small lakes, Lac Alarobia, that provide habitat for a wealth of waterbirds. Always a surprise, today we walked through the gates to find a wealth of birds, an incredible place and a late tour highlight.

There were vast numbers of egrets, at least two Madagascar Squacco Herons in breeding plumage with blue bills, and many Squaccos. Several Black Herons were 'umbrella' fishing and Black-crowned Night Herons roosted. Among ducks were many Red-billed Teal, a few Hottentot Teal, White-faced Whistling Ducks, and a highlight at least four of the large endemic Meller's Duck. Two Madagascar Grebes were on the water.

Birds continued with Madagascar Kingfisher. A bonus was White-throated Rail in almost exactly the same spot as I'd seen it on my last visit.

A *Lygodactylus* was not identified to species. Among Odonata were *Ischnura senegalensis* and *Brachythemis leucosticta*, Banded Groundling. *Zizeeria knysna* flew over the low vegetation and the beautiful *Precis rhadama* was admired. *Papilio epiphorbas* and *Papilio demodocus* were both here.

A mantid on Castor Oil Plant was a pleasing find. Ferns included a *Thelypteris* species, and *Dicranopteris linearis*. Other plants were *Solanum mauritanicum*, *Lantana camara*, *Trema orientalis*, and deep blue flowered *Pycnostachys caerulea*. *Melia azederach* was invasive and *Schizolobium parahyba*, a leguminous tree with yellow flowers, was native to the neotropics.

A weird phenomenon here was dripping trees, with the skies cloudless and blue, the ground dry after no recent rain. We thought this must be due to an insect?

Here we met the new British Ambassador and his wife, just arrived and ready to take on the post the following day. They were interested in what we had seen during the tour, and I was pleased to be able to show them Madagascar Squacco Heron in the telescope.

It was great to return to our quiet leafy hotel not far from the airport. There we had time to relax and repack before enjoying a good last dinner, reflecting on what a great tour we'd all enjoyed and all we had seen.

Most left in the middle of the night for a very early flight, whilst Seth and I stayed until the following afternoon and travelled to the airport together to catch our respective flights.

I travelled by three flights to Chiang Mai where a couple of days later my group arrived for the Thailand tour.

## **Madagascar Systematic Lists 2017**

**Compiled by Paul Cardy**

### **Itinerary:-**

**Tuesday 24<sup>th</sup> October.** Arrival. Antananarivo.

**Wednesday 25<sup>th</sup> October.** To Toliara. Arboretum d'Antsokay. To Ifaty.

**Thursday 26<sup>th</sup> October.** Ifaty.

**Friday 27<sup>th</sup> October.** Ifaty, Zombitse, Isalo.

**Saturday 28<sup>th</sup> October.** Isalo National Park.

**Sunday 29<sup>th</sup> October.** To Ranomafana via Anja.

**Monday 30<sup>th</sup> October.** Ranomafana.

**Tuesday 31<sup>st</sup> October.** Ranomafana: Vohiparara.

**Wednesday 1<sup>st</sup> November.** To Antsirabe.

**Thursday 2<sup>nd</sup> November.** To Andasibe.

**Friday 3<sup>rd</sup> November.** Andasibe.

**Saturday 4<sup>th</sup> November.** Mantadia.

**Sunday 5<sup>th</sup> November.** To Antananarivo. Lac Alarobia.

**Monday 6<sup>th</sup> November.** Departure.

## Systematic List Number 1

## Birds

The taxonomy generally follows 'The Birds of Africa, Volume 8, The Malagasy Region' by Safford and Hawkins, Helm 2013, although the systematic order follows the checklist used on the tour.

Helmeted Guineafowl	<i>Numida meleagris</i>	1 at Ranomafana
White-faced Whistling Duck	<i>Dendrocygna viduata</i>	Common at Lac Alarobia
Meller's Duck	<i>Anas melleri</i>	4+ Lac Alarobia. <b>Endemic.</b>
Red-billed Teal	<i>Anas erythrorhyncha</i>	Numerous at Lac Alarobia, also Day 9 and Addasibe
Hottentot Teal	<i>Anas hottentota</i>	Several at Lac Alarobia
Madagascar Grebe	<i>Tachybaptus pelzelinii</i>	Mantadia NP and Lac Alarobia. <b>Endemic.</b>
Madagascar Crested Ibis	<i>Lophotibis cristata</i>	On a nest at Mantadia. <b>Endemic.</b>
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	Common at Lac Alarobia
Striated Heron	<i>Butorides striata</i>	Singletons at Andasibe and Lac Alarobia
Squacco Heron	<i>Ardeola ralloides</i>	Common at Lac Alarobia
Madagascar Pond Heron	<i>Ardeola idae</i>	Lac Alarobia, in breeding plumage
Western Cattle Egret	<i>Bubulcus ibis</i>	Widespread
(N.B. Cattle Egret, <i>Ardea ibis</i> in BoA 8)		
Madagascar Heron	<i>Ardea humbloti</i>	Near Ifaty. <b>Endemic.</b>
(Humblot's Heron)		
Purple Heron	<i>Ardea purpurea</i>	Vohiparara
Great Egret	<i>Ardea alba</i>	Scattered records
Black Heron	<i>Egretta ardesiaca</i>	Several at Lac Alarobia
Dimorphic Egret	<i>Egretta dimorpha</i>	Scattered records, numerous at Lac Alarobia
(N.B. Treated as Little Egret, <i>Egretta garzetta</i> in BoA 8)		
Hamerkop	<i>Scopus umbretta</i>	Seen on 2 days
Yellow-billed Kite	<i>Milvus aegyptius</i>	Widespread, often common
(Treated as Black Kite, <i>Milvus migrans</i> , in BoA 8)		
Madagascar Harrier Hawk	<i>Polyboroides radiatus</i>	Ifaty. <b>Endemic.</b>
Madagascar Buzzard	<i>Buteo brachypterus</i>	Scattered records. <b>Endemic.</b>
Madagascar Sparrowhawk	<i>Accipiter madagascariensis</i>	Ifaty and Andasibe. <b>Endemic.</b>
Madagascar Kestrel	<i>Falco newtoni</i>	Widespread in small numbers. <b>Endemic.</b>
Subdesert Mesite	<i>Monias benschi</i>	A male and a female at Ifaty. <b>Endemic.</b>
Madagascar Wood Rail	<i>Mentocrex kiolooides</i>	Ranomafana. <b>Endemic.</b>
White-throated Rail	<i>Dryolimnas cuvieri</i>	Lac Alarobia. <b>Endemic.</b>
Common Moorhen	<i>Gallinula chloropus</i>	Mantadia and Lac Alarobia
Madagascar Button-quail	<i>Turnix nigricollis</i>	Ifaty. <b>Endemic.</b>
Black-winged Stilt	<i>Himantopus himantopus</i>	South west
Madagascar Plover	<i>Charadrius thoracicus</i>	1 at Ifaty. <b>Endemic.</b>
Kittlitz's Plover	<i>Charadrius pecuarius</i>	Several in the south west
White-fronted Plover	<i>Charadrius marginatus</i>	South west
Whimbrel	<i>Numenius phaeopus</i>	South west
Common Sandpiper	<i>Actitis hypoleucos</i>	South west, Day 10, and Lac Alarobia
Ruddy Turnstone	<i>Arenaria interpres</i>	South west
Madagascar Pratincole	<i>Glareola ocularis</i>	Day 13. <b>Endemic.</b>

Caspian Tern	<i>Hydroprogne caspia</i>	1 at Ifaty
Feral Pigeon	<i>Columba livia</i>	Scattered records
Namaqua Dove	<i>Oena capensis</i>	Common in the south west
Madagascar Blue Pigeon	<i>Alectroenas madagascariensis</i>	Ranomafana and Mantadia. <b>Endemic.</b>
Madagascar Turtle Dove	<i>Nesoenas picturata</i>	Scattered records. <b>Endemic.</b>
Grey-headed Lovebird	<i>Agapornis canus</i>	A pair at Ifaty. <b>Endemic.</b>
Greater Vasa Parrot	<i>Coracopsis vasa</i>	Scattered records. <b>Regional endemic.</b>
Lesser Vasa Parrot	<i>Coracopsis nigra</i>	Recorded on 5 days. <b>Regional endemic.</b>
Madagascar Coucal	<i>Centropus toulou</i>	Widespread in small numbers. <b>Regional endemic.</b>
Crested Coua	<i>Coua cristata</i>	Ifaty. <b>Endemic.</b>
Blue Coua	<i>Coua caerulea</i>	Andasibe and Ranomafana. <b>Endemic.</b>
Green-capped Coua	<i>Coua (ruficeps) olivaceiceps</i>	Ifaty area. <b>Endemic.</b>
(Treated under Red-capped Coua, <i>Coua ruficeps</i> ssp. <i>olivaceiceps</i> , BoA 8)		
Red-fronted Coua	<i>Coua reynaudii</i>	Ranomafana. <b>Endemic.</b>
Coquerel's Coua	<i>Coua coquereli</i>	Heard at Zombitse. <b>Endemic.</b>
Running Coua	<i>Coua cursor</i>	Ifaty. <b>Endemic.</b>
Giant Coua	<i>Coua gigas</i>	Zombitse. <b>Endemic.</b>
Madagascar Cuckoo	<i>Cuculus rochii</i>	Very often heard, sometimes seen. <b>Breeding endemic.</b>
Barn Owl	<i>Tyto alba</i>	Antananarivo and Ifaty
Rainforest Scops Owl	<i>Otus rutilus</i>	Andasibe. <b>Endemic.</b>
Torotoroka Scops Owl	<i>Otus madagascariensis</i>	Isalo and Antsirabe. <b>Endemic.</b>
(Both the above treated as subspecies of Madagascar Scops Owl, <i>Otus rutilus</i> , in BoA 8)		
White-browed Owl	<i>Ninox superciliaris</i>	1 at Zombitse. <b>Endemic.</b>
Madagascar Long-eared Owl	<i>Asio madagascariensis</i>	1 at Andasibe. <b>Endemic.</b>
Torotoroka Scops Owl	<i>Otus madagascariensis</i>	Isalo and Antsirabe. <b>Endemic.</b>
Rainforest Scops Owl	<i>Otus rutilus</i>	Andasibe. <b>Endemic.</b>
Madagascar Nightjar	<i>Caprimulgus madagascariensis</i>	Widespread. <b>Regional endemic.</b>
Collared Nightjar	<i>Gactornis enarratus</i>	Andasibe. <b>Endemic.</b>
Madagascar Spinetail	<i>Zonavena grandidieri</i>	Ifaty and Andasibe. <b>Regional endemic.</b>
African Palm Swift	<i>Cypsiurus parvus</i>	Widespread.
Alpine Swift	<i>Tachymarptis melba</i>	Day 6
Malagasy Black Swift	<i>Apus balstoni</i>	Scattered records. Treated as a subspecies of African Black Swift, <i>Apus barbatus</i> , in BoA 8.
Madagascar Cuckoo-roller	<i>Leptosomus discolor</i>	Zombitse, Isalo, and Ranomafana. <b>Regional endemic.</b>
Broad-billed Roller	<i>Eurystomus glaucurus</i>	Zombitse and Mantadia
Pitta-like Ground Roller	<i>Atelornis pittoides</i>	Ranomafana. <b>Endemic.</b>
Long-tailed Ground Roller	<i>Uratelornis chimaera</i>	2 at Ifaty. <b>Endemic.</b>
Madagascar Malachite Kingfisher	<i>Corythornis vintsioides</i>	Scattered records, seen on 6 days. <b>Regional Endemic.</b>
Olive Bee-eater	<i>Merops superciliosus</i>	Widespread
Madagascar Hoopoe	<i>Upupa marginata</i>	Antananarivo, Ifaty, and Isalo. <b>Endemic.</b>
Velvet Asity	<i>Philepitta castanea</i>	Two females and a male at Ranomafana. <b>Endemic.</b>
Common Sunbird Asity	<i>Neodrepanis coruscans</i>	Heard at Ranomafana. <b>Endemic.</b>

Red-tailed Vanga	<i>Calicalicus madagascariensis</i>	Ifaty, Ranomafana, and Mantadia. <b>Endemic.</b>
Hook-billed Vanga	<i>Vanga curvirostris</i>	Ifaty. <b>Endemic.</b>
Pollen's Vanga	<i>Xenopirostris polleni</i>	A pair at Vohiparara. <b>Endemic.</b>
Sickle-billed Vanga	<i>Falcolea palliata</i>	Ifaty. <b>Endemic.</b>
White-headed Vanga	<i>Artamella viridis</i>	Ifaty, Isalo, and Ranomafana. <b>Endemic.</b>
Chabert Vanga	<i>Leptopterus chabert</i>	Ifaty, Ranomafana, and Andasibe. <b>Endemic.</b>
Blue Vanga	<i>Cyanolanius madagascarinus</i>	Ranomafana. <b>Endemic.</b>
Tylas Vanga	<i>Tylas eduardi</i>	Ranomafana on two days. <b>Endemic.</b>
Nuthatch Vanga	<i>Hypositta corallirostris</i>	Heard at Andasibe. <b>Endemic.</b>
Crossley's Vanga	<i>Mystacornis crossleyi</i>	Heard at Andasibe. <b>Endemic.</b>
Ward's Vanga	<i>Pseudobias wardi</i>	Ranomafana and Andasibe. <b>Endemic.</b>
Common Newtonia	<i>Newtonia brunneicauda</i>	Scattered records, seen on 5 days. <b>Endemic.</b>
Archbold's Newtonia	<i>Newtonia archboldi</i>	Ifaty. <b>Endemic.</b>
Madagascar Cuckoo Shrike	<i>Coracina cinerea</i>	Ranomafana. <b>Regional endemic.</b>
Crested Drongo	<i>Dicrurus forficatus</i>	Widespread. <b>Regional endemic.</b>
Madagascar Paradise Flycatcher	<i>Terpsiphone mutata</i>	Widespread. <b>Regional endemic.</b>
Pied Crow	<i>Corvus albus</i>	Widespread and common
Madagascar Lark	<i>Mirafra hova</i>	Widespread and common. <b>Endemic.</b>
Madagascar Bulbul	<i>Hypsipetes madagascariensis</i>	Widespread and common. <b>Regional endemic.</b>
Mascarene Martin	<i>Phedina borbonica</i>	Widespread. <b>Regional breeding endemic.</b>
Brown-throated (Plain) Martin	<i>Riparia paludicola</i>	Andasibe etc.
Madagascar Brush Warbler	<i>Nesillas typica</i>	Widespread in small numbers. <b>Regional endemic.</b>
Subdesert Brush Warbler	<i>Nesillas lantzii</i>	Ifaty. <b>Endemic.</b>
Madagascar Swamp Warbler	<i>Acrocephalus newtoni</i>	Mantadia. <b>Endemic.</b>
White-throated Oxylabes	<i>Oxylabes madagascariensis</i>	Ranomafana and Andasibe. <b>Endemic.</b>
Long-billed Bernieria	<i>Bernieria madagascariensis</i>	Ranomafana. <b>Endemic.</b>
Thamnornis	<i>Thamnornis chloropetoides</i>	Ifaty. <b>Endemic.</b>
Spectacled Tetraka	<i>Xanthomixis zosterops</i>	Ranomafana and Andasibe. <b>Endemic.</b>
Appert's Tetraka	<i>Xanthomixis apperti</i>	Zombitse. <b>Endemic.</b>
Grey-crowned Tetraka	<i>Xanthomixis cinereiceps</i>	Ranomafana. <b>Endemic.</b>
Rand's Warbler	<i>Randia pseudozosterops</i>	Ranomafana and Andasibe. <b>Endemic.</b>
Common Jery	<i>Neomixis tenella</i>	Widespread. <b>Endemic.</b>
Green Jery	<i>Neomixis viridis</i>	Ranomafana. <b>Endemic.</b>
Stripe-throated Jery	<i>Neomixis striatigula</i>	Scattered records. <b>Endemic.</b>
Madagascar Cisticola	<i>Cisticola cherina</i>	Scattered records. <b>Endemic.</b>
Madagascar White-eye	<i>Zosterops maderaspatanus</i>	Widespread and common. <b>Regional endemic.</b>
Madagascar Starling	<i>Hartlaubius auratus</i>	Ranomafana. <b>Endemic.</b>
Common Mynah	<i>Acridotheres tristis</i>	Widespread and numerous
Madagascar Magpie Robin	<i>Copsychus albospectularis</i>	Seen daily. <b>Endemic.</b>
Madagascar Stonechat	<i>Saxicola sibilla</i>	Daily from day 9 onwards. Also at Isalo. <b>Endemic.</b>
Forest Rock Thrush	<i>Monticola sharpei</i>	Isalo. <b>Endemic.</b>
Madagascar Green Sunbird	<i>Nectarinia notata</i>	Widespread. <b>Regional endemic</b>
Souimanga Sunbird	<i>Nectarinia souimanga</i>	Seen daily. <b>Regional endemic.</b>
Nelicourvi Weaver	<i>Ploceus nelicourvi</i>	Andasibe, Mantadia, and Ranomafana. <b>Endemic.</b>
Sakalava Weaver	<i>Ploceus sakalava</i>	South west. <b>Endemic.</b>

Madagascar Fody	<i>Foudia madagascariensis</i>	Widespread and common. <b>Endemic</b>
Forest Fody	<i>Foudia omissa</i>	Vohiparara. <b>Endemic.</b>
Madagascar Mannikin	<i>Lepidopygia nana</i>	Widespread. <b>Endemic.</b>
Madagascar Wagtail	<i>Motacilla flaviventris</i>	Widespread. <b>Endemic.</b>

## Systematic List Number 2      Mammals

The taxonomy and nomenclature follow ‘Mammals of Madagascar’ by Nick Garbutt, 2007.

Lesser Hedgehog Tenrec	<i>Echinops telfairi</i>	Ifaty
Commerson’s Leaf-nosed Bat	<i>Hipposideros commersoni</i>	Arboretum d’Antsokay
Bat sp.	<i>Miniopterus</i> sp.	Ranomafana
Grey Mouse Lemur	<i>Microcebus murinus</i>	Ifaty
Brown Mouse Lemur	<i>Microcebus rufus</i>	Ranomafana
Grey-brown Mouse Lemur	<i>Microcebus griseorufus</i>	Arboretum d’Antsokay
Goodman’s Mouse Lemur	<i>Microcebus lehilahytsara</i>	Glimpsed at Andasibe
Furry-eared Dwarf Lemur	<i>Cheirogaleus crossleyi</i>	Several at Andasibe
White-footed Sportive Lemur	<i>Lepilemur leucopus</i>	Ifaty
Black-shouldered Sportive Lemur	<i>Lepilemur</i> sp.	Ifaty. A recently described species.
Zombitse Sportive Lemur	<i>Lepilemur hubbardorum</i>	Zombitse
Eastern Grey Bamboo Lemur	<i>Hapalemur griseus</i>	Andasibe and Mantadia
Golden Bamboo Lemur	<i>Hapalemur aureus</i>	2 at Ranomafana
Greater Bamboo Lemur	<i>Prolemur sinus</i>	1 at Ranomafana
Ring-tailed Lemur	<i>Lemur catta</i>	Isalo and Anja
Common Brown Lemur	<i>Eulemur fulvus</i>	Andasibe
Red-fronted Brown Lemur	<i>Eulemur rufus</i>	Isalo and Ranomafana
Black-and-white Ruffed Lemur	<i>Varecia variegata</i>	Ranomafana and Mantadia
Diademed Sifaka	<i>Propithecus diadema</i>	Mantadia
Milne-Edwards’s Sifaka	<i>Propithecus edwardsi</i>	Ranomafana
Verreaux’s Sifaka	<i>Propithecus verreauxi</i>	Zombitse and Isalo
Indri	<i>Indri indri</i>	Seen superbly at Andasibe
Ring-tailed Mongoose (Ring-tailed Vontsira)	<i>Galidia elegans</i>	1 at Ranomafana
Eastern Red Forest Rat	<i>Nesomys rufus</i>	1 at Ranomafana

## Systematic List Number 3

## Amphibians and Reptiles

Nomenclature follows the excellent 'A Field Guide to the Amphibians and Reptiles of Madagascar', Glaw and Vences, 3rd Edition 2007.

### ***Ptychadenidae***

*Ptychadena mascareniensis* Malagasy Rocket Frog By the lake at Mantadia

### ***Hyperoliidae***

*Heterixalus luteostriatus* 2 at Isalo

### ***Microhylidae***

*Scaphiophryne marmorata* 2 at Andasibe

*Plethodontohyla notosticta*

### ***Mantellidae***

*Boophis rappoides*

*Boophis bottae* Andasibe and Ranomafana

*Aglyptodactylus madagascariensis* Andasibe

*Aglyptodactylus vohiparara*

*Mantella baroni* 1 at Vohiparara

*Guibemantis pulcher* a pandanus frog

*Guibemantis* sp. a pandanus frog On *Pandanus* at Vohiparara, and Andasibe

*Gephyromantis decaryi* An as yet undescribed species

*Gephyromantis asper* on *Pandanus* at Andasibe

*Mantidactylus melanopleura* Ranomafana

*Mantidactylus majori* Vohiparara

Vohiparara and Mantadia

A few at Vohiparara, in water

### ***Testudinidae***

*Astrochelys radiata*

Radiated Tortoise

In captivity at Antsokay

*Pyxis arachnoides*

In captivity at Antsokay

### ***Chamaeleonidae***

*Brookesia superciliaris*

Andasibe

*Calumma brevicorne*

Short-horned Chameleon

Andasibe

*Calumma crypticum*

Blue-legged Chameleon

Ranomafana

*Calumma oshaughnessyi*

Vohiparara

*Calumma parsonii*

A female at Andasibe

*Calumma nasutum*

Sharp-nosed Chameleon

Ranomafana and Andasibe

*Calumma gastrotaenia*

Band-bellied Chameleon

Andasibe

*Furcifer lateralis*

Jewel Chameleon

By ponds on Day 9, three

males and two females

*Furcifer oustaleti*

Oustalet's Chameleon

Antananarivo, Zombitse,

Ifaty

*Furcifer balteatus*

A male at Ranomafana

## ***Iguanidae***

<i>Oplurus cyclurus</i>		Toliara and Ifaty
<i>Oplurus quadrimaculatus</i>		Day 9 ponds
<i>Chalarodon madagascariensis</i>	Three-eyed Lizard	Toliara and Ifaty areas
<i>Zonosaurus ornatus</i>	Ornate Girdled Lizard	South of Antananarivo, and Vohiparara
<i>Zonosaurus madagascariensis</i>	Several at Mantadia	
<i>Tracheloptychus madagascariensis</i>		
<i>Tracheloptychus petersi</i>		Ifaty

## ***Scincidae***

<i>Trachylepis aureopunctata</i>	Gold-spotted Skink	
<i>Trachylepis gravenhorstii</i>	Gravenhorst's Skink	Zombitse, Vohiparara, Mantadia

## ***Gekkonidae***

<i>Blaesodactylus sakalava</i>		Ifaty
<i>Hemidactylus frenatus</i>	Common House Gecko	Scattered records
<i>Hemidactylus mercatorius</i>	Gray's Leaf-toed Gecko	Antananarivo etc.
<i>Ebenavia inunguis</i>		Ranomafana
<i>Uroplatus sikorae</i>	Moss Leaf-tailed Gecko	Andasibe
<i>Lygodactylus tuberosus</i>		South west
<i>Lygodactylus tolampyae</i>	Grandidier's Dwarf Gecko	Several at Zombitse
<i>Lygodactylus verticillatus</i>		Ifaty
<i>Lygodactylus miops</i>		This was the species on a tree trunk at Andasibe
<i>Lygodactylus sp.</i>		Lac Alarobia
<i>Microscalabotes bivittis</i>		This was the gecko on a branch at Mantadia
<i>Phelsuma madagascariensis</i>		Andasibe
<i>Phelsuma standingi</i>	Standing's Day Gecko	Ifaty and Zombitse
<i>Phelsuma modesta</i>		South west
<i>Phelsuma mutabilis</i>		Antsokay, Ifaty and Zombitse
<i>Phelsuma lineata</i>		Common at Andasibe, and at Ranomafana
<i>Phelsuma quadriocellata</i>	Peacock Day Gecko	Mantadia

## ***Boidae***

<i>Sanzinia madagascariensis</i>	Madagascar Tree Boa	Andasibe
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## ***Colubridae***

<i>Bibilava lateralis</i>	Madagascan Whipsnake	Isalo
<i>Bibilava epistibes</i>		
<i>Dromicodryas bernieri</i>		Isalo
<i>Mimophis mahfalensis</i>	Mahafaly Sand Snake	Ifaty

## Systematic List Number 4      Butterflies

The taxonomy and systematic order follow ‘Classification, Diversity, and Endemism of the Butterflies (Papilionoidea and Hesperoidea): a Revised Species Checklist’, by Lees, Kremen and Raharitsimba in ‘The Natural History of Madagascar’ by Goodman and Benstead, 2003. Bold type indicates an endemic species or subspecies.

### ***Papilionidae***

<i>Graphium evombar</i>	Zombitse
<b><i>Graphium cyrnus</i></b>	Zombitse, Isalo, Mantadia
<b><i>Graphium endochus</i></b>	Zombitse
<b><i>Pharmacophagus antenor</i></b>	Isalo, Toliara, and several in Ifaty area.
<i>Papilio demodocus</i>	Widespread
<i>Papilio dardanus meriones</i>	Several at Zombitse
<b><i>Papilio oribazus</i></b>	Andasibe and Mantadia
<i>Papilio epiphorbas epiphorbas</i>	Antananarivo, Zombitse, Anja, Lac Alarobia
<b><i>Papilio delalandei</i></b>	Isalo
<b><i>Papilio mangoura</i></b>	Mantadia

### ***Pieridae***

<i>Catopsilia florella thauruma</i>	Widespread, seen daily
<i>Eurema brigitta pulchella</i>	Isalo and Anja
<i>Eurema desjardinsii desjardinsii</i>	Isalo and Ranomafana
<i>Eurema floricola</i>	Mantadia
<i>Pinacopteryx eriphia mabillei</i>	Several in Ifaty area
<b><i>Colotis zoe</i></b>	Common at Ifaty
<b><i>Colotis guenei</i></b>	Arboretum d’Antsokay
<i>Colotis evanthe</i>	Widespread in the first week
<i>Gideona lucasi</i>	Arboretum d’Antsokay, Ifaty, Isalo
<i>Appias sabina confusa</i>	Zombitse and Mantadia
<b><i>Belenois antsianaka</i></b>	Anja
<b><i>Belenois helcida</i></b>	Andasibe
<i>Belenois grandidieri</i>	Ifaty
<i>Dixeia charina narena</i>	Zombitse
<b><i>Mylothris phileris</i></b>	Scattered records, e.g. Antananarivo, Andasibe, Mantadia (where common)
<i>Leptosia nupta viettei</i>	Anja
<i>Leptosia alcesta sylvicola</i>	Zombitse and Anja

### ***Nymphalidae***

#### ***Danainae***

<i>Danaus chrysippus orientis</i>	Widespread and locally common
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#### ***Satyrinae***

Photographs from Ian Small and Seth Musker were used to identify many of the satyrids

<i>Gnophodes betsimena</i> <b><i>betsimena</i></b>	Anja
<i>Melanitis leda</i>	Vohiparara
<b><i>Heteropsis vola</i></b>	Ranomafana, Vohiparara and Mantadia
<b><i>Heteropsis fuliginosa</i></b>	Ranomafana (IS photo), a rare species
<b><i>Heteropsis ankaratra</i></b>	Isalo and Anja
<i>Heteropsis narcissus</i> <b><i>fraterna</i></b>	Zombitse and Isalo
<b><i>Heteropsis passandava</i></b>	Mantadia
<b><i>Heteropsis obscura</i></b>	Ranomafana
<b><i>Heteropsis iboina</i></b>	Andasibe and Mantadia
<b><i>Heteropsis subsimilis</i></b>	Andasibe
<b><i>Heteropsis ankova</i></b>	Andasibe and Mantadia
<b><i>Heteropsis turbata</i></b>	Andasibe
<b><i>Heteropsis pallida</i></b>	Andasibe
<b><i>Heteropsis strigula</i></b>	Ranomafana, Andasibe, and Mantadia
<b><i>Heteropsis undulans</i></b>	Ranomafana, Andasibe, and Mantadia
<b><i>Heteropsis angulifascia</i></b>	Ranomafana
<b><i>Heteropsis difficilis</i></b>	
<b><i>Heteropsis</i> spp.</b>	
<b><i>Strabena triophthalma</i></b>	Ranomafana and Mantadia
<b><i>Strabena ibitina</i></b>	Andasibe
<b><i>Strabena vinsoni</i></b>	Andasibe
<b><i>Strabena rakoto</i></b>	Andasibe
<b><i>Strabena smithii</i></b>	Mantadia
<b><i>Strabena tamatavae</i></b>	Ranomafana, south of Antananarivo, Mantadia
<b><i>Strabena</i> spp.</b>	
<b><i>Charaxinae</i></b>	
<b><i>Charaxes antamboulou</i></b>	Isalo
<b><i>Charaxes</i> spp.</b>	Zombitse and Isalo, both in rapid flight
<b><i>Nymphalinae</i></b>	
<b><i>Vanessa cardui</i></b>	South of Antananarivo
<b><i>Protogoniomorpha anacardii</i> <i>duprei</i></b>	Several at Mantadia
<b><i>Salamis anteva</i></b>	3 at Mantadia
<b><i>Precis andremlaja</i></b>	Ranomafana and Lac Alarobia
<b><i>Precis eurodoce</i></b>	2 at Mantadia
<b><i>Junonia goudotii</i></b>	Scattered records, e.g. Ranomafana and Mantadia
<b><i>Junonia oenone epiclelia</i></b>	A few records
<b><i>Junonia orithya</i></b>	Zombitse
<b><i>Junonia rhadama</i></b>	Widespread in small numbers
<b><i>Biblidinae</i></b>	
<b><i>Byblia anvatarata</i></b>	Isalo

### ***Limenitinae***

<i>Neptis kikedeli</i>	Scattered records
<i>Neptis saclava saclava</i>	Several at Mantadia
<i>Cymothoe dujardini</i>	This seen briefly at Mantadia?
<i>Aterica rabena</i>	Isalo and Mantadia
<i>Cyrestis camillus elegans</i>	2 at Mantadia

### ***Heliconiinae***

<i>Acraea turna</i>	South west
<i>Acraea ranavalona</i>	Several at Anja
<i>Acraea mahela</i>	Anja and Day 10
<i>Acraea dammii</i>	Females at Mantadia
<i>Acraea masamba</i>	Mantadia
<i>Acraea encedon</i>	Zombitse and Isalo
<i>Acraea serena</i>	South of Antananarivo
<i>Acraea lia</i>	Zombitse
<i>Acraea zitja</i>	Anja and south of Antananarivo
<i>Acraea obeira obeira</i>	Zombitse
<i>Phalanta phalantha aethiopica</i>	Zombitse and east of Antananarivo

### ***Lycaenidae***

#### ***Theclinae***

<i>Hemiolaus ceres</i>	Zombitse
<i>Hemiolaus cobaltina</i>	Isalo
<i>Hypolycaena philippus ramonza</i>	
<i>Leptomyrina phidias</i>	Antananarivo and south west
<i>Deudorix antalus</i>	Ifaty

### ***Polyommatainae***

<i>Catachrysops scintilla</i>	Ranomafana and Andasibe
<i>Lampides boeticus</i>	Ifaty
<i>Cacyreus darius</i>	Andasibe
<i>Leptotes rabefaner</i>	Several at Mantadia
<i>Zizeeria knysna</i>	Scattered records
<i>Zizina antanossa</i>	Anja etc.
<i>Zizula hylax</i>	Arboretum d'Antsokay
<i>Chilades minuscula</i>	This specis at Zombitse?

### ***Riodininae***

<i>Saribia</i> sp.	Ranomafana, Vohiparara
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### ***Hesperiidae***

**N.B.** Even with the monograph in my possession, 'Lepidopteres Hesperidae' by P.Viette, Faune de Madagascar, 1956, the identification of several skippers we saw remains uncertain.

***Coeliadinae***

*Coeliades ernesti*  
*Coeliades forestan*

Ifaty (mantid prey), and Zombitse  
Isalo Rock Lodge

***Pyrginae***

*Eagris sabadius*

Antananarivo and Mantadia

***Heteropterinae***

*Hovala* sp.

Mantadia

***Hesperinae***

*Fulda coroller*

*Borbo borbonica*

*Borbo gemella*

*Parnara naso poutieri*

Ranomafana roadside

Antananarivo

Antananarivo

## Systematic List Number 5      Vascular Plants

This list is highly provisional!

Among works used were:- 'Plantes de Madagascar. Atlas.' By Lucile Allorge, Ulmer 2008.

'Flore de Madagascar et des Comores' by Henri Humbert, Paris, Museum National d'Histoire Naturelle.

'The Leguminosae of Madagascar' by Du Puy et.al. 2002, Kew.

'Succulent and Xerophytic Plants of Madagascar' by W.Rauh, Volume 1 1995, Volume 2 1998, Strawberry Press, California.

### Ferns and their allies

#### ***Adiantaceae***

*Pellaea viridis*

*Adiantum capillus-veneris*

Maidenhair Fern

This species or similar

#### ***Aspleniaceae***

*Asplenium nidus*

Bird's-nest fern

Ranomafana

#### ***Cyatheaceae***

*Cyathea* spp.

Eastern forests. 40 species on Madagascar.

#### ***Dennstaedtiaceae***

*Odontosoria melleri*

Mantadia

#### ***Gleicheniaceae***

*Dichranopteris linearis*

Tall fern with fronds forking and 1-pinnate.  
Locally dominant.

#### ***Lycopodiaceae***

*Huperzia* spp.

*Lycopodiella cernua*

#### ***Osmundaceae***

*Osmunda regalis*

Royal Fern

#### ***Parkeriaceae***

*Acrostichum aureum*

#### ***Polypodiaceae***

*Platynerium* spp.

#### ***Thelypteridaceae***

*Thelypteris* sp.

Lac Alarobia

## Conifers

### *Araucariaceae*

*Araucaria heterophylla*  
*Araucaria cunninghamii*

### *Pinaceae*

*Pinus caribaea* Caribbean Pine 3-needle pine, dark green glossy leaves  
*Pinus khasya*

### *Podocarpaceae*

*Podocarpus madagascariensis*

## Angiosperms

### DICOTYLEDONES

### *Acanthaceae*

*Anisotes madagascariensis* Shrub with red tubular flowers. Notched ovate thick silvery leaves. North of Toliara.

*Asystasia gangetica*

*Barleria lupulina* Yellow flowers. North of Toliara.

*Crossandra* sp. Yellow flowers. North of Toliara.

*Oplonia vincoides* Shrub with mauve flowers. East of Toliara.

*Ruellia atropurpurea* White flowers with purple lower lip. East of Toliara.

*Ruellia latisepala*

*Thunbergia alata* Black-eyed Susan

Antsokay

Lac Alarobia

### *Amaranthaceae*

*Celosia argentea* Cock's-comb

*Henonia scoparia*

Antsokay

### *Anacardiaceae*

*Abrahamia* sp.

*Micronychia microphylla*

*Operculicarya decaryi*

*Operculicarya pachypus*

*Poupartia minor*

*Poupartia silvatica*

*Sclerocarya birrea caffra*

Andasibe

Ranomafana

Antsokay

Antsokay

This at La Tabla?

### *Aphloiaceae*

*Aphloia theaeformis*

## ***Apiaceae***

*Centella asiatica* a marsh pennywort  
*Phellolophium madagascariense*  
*Sanicula* sp.

Lac Alarobia  
Ranomafana marshes  
Ranomafana

## ***Apocynaceae***

*Asclepias curassavica*  
*Calotropis gigantea* Giant Milkweed  
*Catharanthus roseus* Madagascar Periwinkle  
*Cryptostegia madagascariensis*  
*Cynanchum compactum*  
*Cynanchum floriferum*  
*Cynanchum lineare*

Lac Alarobia  
South west  
Widespread and locally common  
Pink trumpets. Ifaty.  
This species at Isalo?  
Antsokay  
Narrow leaves. White flowers turn yellow. East of Toliara.  
Ifaty  
Toliara.  
Isalo. Linear leaves. Gives its name to the park.

*Cynanchum perrieri*  
*Cynanchum* sp.  
*Ichnolepis graminifolia*  
*Marsdenia brevisquama*  
*Mascarenhasia lisianthiflora*  
*Nerium oleander* Oleander  
*Pachypodium geayi*  
*Pachypodium lamerai*

Isalo

*Pachypodium rosulatum*  
*Strophanthes boivinii*  
*Thevetia peruviana* Yellow Oleander  
*Voacanga thoursaii*

In fruit Ifaty. In flower Toliara Botanic Garden.  
Spines in threes on trunk. Showy white flowers.  
Toliara Botanic Garden.  
Yellow flowers. In fine flower at Zombitse.  
Antsokay

The dominant flowering tree at Relais de la Reine.

## ***Araliaceae***

*Schefflera* sp.

## ***Aristolochiaceae***

*Aristolochia* sp.

In flower at Ifaty

## ***Asteraceae***

*Ageratum* sp.  
*Artemisia annua*  
*Aspilia africana*  
*Aspilia thoursii*  
*Bidens pilosa*

This species cultivated?

*Dicoma incana*  
*Emilia humifuga*  
*Emilia* spp.  
*Helichrysum* spp.  
*Hypochoeris radicata* Cat's-ear

Small white daisy-like heads with yellow centre,  
opposite pinnate leaves  
Glaucous-leaved shrub common in Isalo area  
Orange flowers  
Yellow flowers  
Lac Alarobia, Relais de la Reine

*Psiadia altissima*  
*Senecio* spp.  
*Tridax procumbens* Coat-buttons Weed with white notched ray petals. Widespread.

***Avicenniaceae***  
*Avicennia marina*

***Balsaminaceae***  
*Impatiens* sp. Ranomafana, in leaf

***Bignoniaceae***  
*Ophiocolea* sp. Andasibe  
*Fernandoa* sp. Spiny forest  
*Stereospermum* sp.

***Boraginaceae***  
*Cordia mairei* South west  
*Heliotropium indicum* Annual with rough ovate leaves and pale lilac curving double spikes. Widespread in south-west.

***Brassicaceae***  
*Boscia* sp. Spiny forest  
*Lepidium africanum* This species at Lac Alarobia?  
*Tylachium* sp.

***Buddlejaceae***  
*Buddleja madagascariensis* Ponds Day 9

***Burseraceae***  
*Canarium* sp.  
*Commiphora monstrosa* La Tabla  
*Commiphora simplicifolia* Spiny Forest

***Cactaceae***  
*Cereus hexagonus*  
*Opuntia dillenii* South west  
*Opuntia stricta* South west  
*Rhipsalis baccifera* Ranomafana, Andasibe

***Capparidaceae***  
*Cleome* spp.  
*Maerua filiformis* South west

***Casuarinaceae***  
*Casuarina equisetifolia* Coastal

### ***Celastraceae***

*Gymnosporia* sp.  
*Maytenus* sp  
*Evonymopsis* sp.  
*Loeseneriella* sp.

Zombitse  
Five green petals. South of Toliara

### ***Celtidaceae***

*Trema orientalis*

Scattered at forest edge

### ***Clusiaceae***

*Harungana madagascariensis*  
*Hypericum* sp.  
*Mammea* sp.  
*Psorospermum* sp.  
*Symphonia* spp.

Lac Alarobia etc.  
A herb in Ranomafana marshes  
Andasibe  
  
Eastern forests

### ***Combretaceae***

*Combretum coccineum*  
*Combretum grandidieri*  
*Combretum* sp.  
*Terminalia catappa* Indian Almond  
  
*Terminalia* sp.

Ifaty  
Ifaty. Tubular red flowers.  
  
Distinctive arrangement of layered branches and terminally clustered leathery obovate leaves

### ***Convolvulaceae***

*Ipomoea pes-caprae* Sea Morning Glory  
  
*Merremia medium*

Purple-pink trumpets 3-6cm and distinctive “goat’s-foot” leaves. Coastal.  
Yellow flowers, narrow leaves

### ***Crassulaceae***

*Crassula* sp.  
*Kalanchoe beharensis*  
*Kalanchoe grandidieri*  
*Kalanchoe orgyalis*  
*Kalanchoe* spp.

Antsokay  
Antsokay  
Antsokay  
Several other species in flower

### ***Cunoniaceae***

*Weinmania* sp.

### ***Didieraceae***

*Alluaudia comosa*  
*Alluaudia montagnacii*  
*Alluaudia procera*  
*Alluaudiopsis marnieriana*

East of Toliara  
Antsokay  
Antsokay  
Ifaty, zigzag stems

<i>Didierea madagascariensis</i>		Common in Ifaty area
<i>Didierea trollii</i>		Antsokay
<b><i>Droseraceae</i></b>		
<i>Drosera madagascariensis</i>		Ranomafana
<b><i>Elaeocarpaceae</i></b>		
<i>Sloania</i> sp.		Ranomafana
<b><i>Ericaceae</i></b>		
<i>Erica</i> spp.		35 occur on Madagascar
<b><i>Euphorbiaceae</i></b>		
<i>Acalypha</i> spp.		
<i>Amyrea</i> sp.		Andasibe, Indri site
<i>Antidesma madagascariense</i>		
<i>Brydelia</i> sp.		Mantadia
<i>Chamaesyce hirta</i>		
<i>Croton</i> spp.		
<i>Dalechampia madagascariensis</i>		Zombitse
<i>Euphorbia enterophora</i>		'Tree' with flattened cladodes, Zombitse
<i>Euphorbia fiherenensis</i>		Tree, succulent cylindrical stems. South of Toliara.
<i>Euphorbia laro</i>		Ifaty
<i>Euphorbia leucodendron onococlada</i>		Tree, constrictions along branches, south of Toliara.
<i>Euphorbia milii</i>		Zombitse
<i>Euphorbia pervilleana</i>		Ifaty
<i>Euphorbia stenoclada</i>		Very spiny. Ifaty and Toliara.
<i>Euphorbia tirucalli</i>		Toliara and Ifaty
<i>Euphorbia tulearensis</i>		Antsokay
<i>Euphorbia</i> spp.		
<i>Givotia madagascariensis</i>		Ifaty
<i>Jatropha mahafalensis</i>		
<i>Jatropha</i> sp.		
<i>Macaranga</i> sp.		Andasibe, Anja
<i>Ricinus communis</i>	Castor Oil Plant	
<i>Securinega</i> sp.		Spiny forest
<i>Uapaia bojeri</i>	Tapia	Madalif and Isalo Rock Lodge
<b><i>Fabaceae</i></b>		
<i>Abrus precatorius</i>		Isalo
<i>Acacia nilotica</i>		Naturalised Toliara
<i>Albizia</i> spp.		
<i>Arachis hypogea</i>	Peanut	Antsirabe
<i>Bauhinia grandidieri</i>		In flower at Ifaty

<i>Bauhinia</i> spp.	
<i>Caesalpinia bonduc</i>	Coastal weed
<i>Cassia</i> spp.	
<i>Chadsia flammea</i>	Zombitse and Isalo
<i>Chadsia grevei</i>	Very common in the south west
<i>Cordyla madagascariensis</i>	Ifaty
<i>Crotalaria grevei</i>	Isalo
<i>Crotalaria</i> spp.	
<i>Dalbergia</i> spp.	
<i>Delonix adansonoides</i>	In flower at Ifaty
<i>Delonix decaryi</i>	
<i>Delonix floribunda</i>	In flower at Ifaty
<i>Delonix pumila</i>	
<i>Delonix regia</i>	Flamboyant
<i>Desmodium incanum</i>	Widely planted native
<i>Dialium</i> sp.	Lac Alarobia
<i>Dichrostachys</i> sp.	Zombitse
<i>Entada</i> sp.	Andasibe
<i>Macropodium atropurpureum</i>	Mantadia
<i>Millettia</i> sp.	Madagascar Pratincole site
<i>Mimosa delicatula</i>	
<i>Mundulea micrantha</i>	South west
<i>Mundulea</i> sp.	Shrub with pink flowers. South-west.
<i>Schizolobium parahyba</i>	Isalo NP
	Tree with panicles of impressive yellow flowers. From the Neotropics.
<i>Schizolobium</i> sp.	
<i>Strongylodon craveniae</i>	Ranomafana
<i>Tamarindus indica</i>	Tamarind
<i>Tephrosia purpurea dunensis</i>	
<i>Tetrapterocarpon geayi</i>	North of Toliara
<b><i>Gentianaceae</i></b>	
<i>Anthocleista</i> sp.	Andasibe first bridge
<i>Exacum quinquenervium</i>	Several near Ranomafana waterfall
<b><i>Geraniaceae</i></b>	
<i>Geranium</i> sp.	Small off white flowers, Ranomafana
<b><i>Gesneriaceae</i></b>	
<i>Streptocarpus</i> sp.	Ranomafana
<b><i>Hernandiaceae</i></b>	
<i>Gyrocarpus americanus</i>	
<b><i>Lamiaceae</i></b>	
<i>Clerodendrum</i> sp.	Andasibe

<i>Leonotis nepetifolia</i>	Naturalised
<i>Pycnostachys caerulea</i>	Lac Alarobia
<i>Salvia coccinea</i>	Naturalised
<i>Salvia</i> sp.	
<b><i>Lauraceae</i></b>	
<i>Cassytha filiformis</i>	Isalo
<i>Cryptocarya</i> sp.	
<i>Ocotea</i> sp.	
<b><i>Lentibulariaceae</i></b>	
<i>Utricularia</i> sp.	By the river at Isalo
<b><i>Lobeliaceae</i></b>	
<i>Lobelia</i> spp.	Several seen, e.g. a small flowered species at Isalo
<b><i>Loganiaceae</i></b>	
<i>Strychnos madagascariensis</i>	
<b><i>Lythraceae</i></b>	
<i>Woodfordia fruticosa</i> Fire Bush	Red tubular flowers
<b><i>Maesaceae</i></b>	
<i>Maesa lanceolata</i>	Mantadia
<b><i>Malvaceae</i></b>	
<i>Adansonia rubrostipa</i>	Ifaty
<i>Adansonia za</i>	Zombitse etc.
<i>Byttneria</i> sp.	
<i>Dombeya</i>	eastern rainforests
<i>Hibiscus</i> spp.	
<i>Sida cordifolia</i>	This species Lac Alarobia?
<b><i>Melastomataceae</i></b>	
<i>Clidemia hirta</i>	Typical hairy Melastomatacean herb, but small white flowers. Ranomafana and Andasibe.
<i>Dichaetanthera condifolia</i>	
<i>Dichaetanthera crassinodis</i>	Ranomafana, Andasibe, in fine flower
<i>Lijndenia</i> sp.	
<b><i>Meliaceae</i></b>	
<i>Azadirachta indica</i> Neem	Tree: alternate pinnate leaves – no terminal leaflet, all other leaflets sickle-shaped with very unequal sides.
<i>Melia azedarach</i>	Invasive

*Neobeguea* sp.  
*Turraea* sp.

La Tabla  
Zombitse

***Monimiaceae***

*Tambourissa* spp.

Ranomafana, Andasibe. Flowers at ground level.

***Moraceae***

*Ficus* spp.

***Moringaceae***

*Moringa drouhardi*  
*Moringa hildebrandtii*  
*Moringa* sp.

South of Toliara  
In cultivation

***Myrsinaceae***

*Oncostemum* sp.

***Myrtaceae***

*Eucalyptus* spp.  
*Eugenia* sp.  
*Psidium* sp.  
*Syzygium* sp.

***Nyctaginaceae***

*Boerhavia* ?*repens*

***Nymphaeaceae***

*Nymphaea nouchali* Blue Water Lily  
var.*caerulea*

Ranomafana

***Ochnaceae***

*Ouratea* sp.

Mantadia

***Oleaceae***

*Fraxinus udhei*  
*Fraxinus* sp.

***Onagraceae***

*Ludwigia* spp.

Isalo, Lac Alarobia, Andasibe

***Passifloraceae***

*Adenia olaboensis*  
*Adenia* spp.  
*Passiflora* spp.

Ifaty  
Ifaty, Toliara

***Pedaliaceae***

*Uncarina leptocarpa*  
*Uncarina stellulifera*  
*Uncarina* sp.

Antsokay  
Fruits with long spines  
In flower south of Toliara

***Peperomiaceae***

*Peperomia* spp.

Ranomafana

***Phyllanthaceae***

*Phyllanthus* sp.

***Phytolaccaceae***

*Phytolacca americana*

American Pokeweed Ponds Day 9 and south of  
Antananarivo

***Piperaceae***

*Piper* spp.

2 at Ranomafana, and Mantadia

***Plantaginaceae***

*Plantago major*

***Plumbaginaceae***

*Plumbago* *aphylla*

North of Toliara

***Polygalaceae***

*Polygala* sp.

Zombitse

***Polygonaceae***

*Polygonum capitatum*  
*Polygonum poiretii*  
*Polygonum meissnerianum*

Andasibe  
Lac Alarobia  
Broad leaves, Andasibe track sides

***Proteaceae***

*Dilobeia thouarsii*  
*Grevillea robusta* Silky Oak

Mantadia  
Planted

***Ranunculaceae***

*Ranunculus* spp.

Anja and Ranomafana

***Rhamnaceae***

*Zizyphus* sp.

***Rhizophoraceae***

*Bruguiera gymnorrhiza*

***Rosaceae***

*Rubus* spp. e.g. Ranomafana

***Rubiaceae***

*Breonadia salicina* Along rivers  
*Mussaenda* spp.  
*Psychotria* spp.  
*Saldinia* spp.

***Rutaceae***

*Cedrelopsis grevei*  
*Zanthoxylum decaryi* Ifaty  
*Zanthoxylum* sp.

***Salicaceae***

*Salix madagascariensis*

***Salvadoraceae***

*Salvadora angustifolia*

***Sapindaceae***

*Filicium* sp.

***Sapotaceae***

*Carpinodendron* sp. Spiny forest  
*Sideroxylon* sp. Ifaty

***Scrophulariaceae***

*Alectra* sp. Yellow flowers, Isalo  
*Bacopa monnieri* Water Hyssop Sub-actinomorphic pale violet flowers. Flats in south west.  
*Scoparia dulcis* Herb, white flowers

***Solanaceae***

*Lycium tenuum* North of Toliara  
*Solanum mauritianum* Lac Alarobia etc.  
*Solanum* sp. Short spines, white flowers, spiny fruits.  
*Solanum* spp.

***Sonneratiaceae***

*Sonneratia alba*

***Thymelaeaceae***

*Lasiosiphon* sp. South west

### ***Tiliaceae***

*Grewia tulearensis*

Ifaty

### ***Verbenaceae***

*Verbena bonariensis*

Ranomafana

*Lantana camara* Lantana

Widespread and abundant

### ***Vitaceae***

*Cissus* spp.

*Cyphostemma elephantopus*

Arboretum d'Antsokay

*Cyphostemma* spp.

### ***Zygophyllaceae***

*Zygophyllum depauperatum*

Shrub with green fruits. Toliara area.

## MONOCOTYLEDONES

### ***Agavaceae***

*Agave americana*

*Agave sisalana*

### ***Amaryllidaceae***

*Crinum firmifoliumum*

Ranomafana, endemic

### ***Araceae***

*Pothos scandens*

On tree trunks, Ranomafana and Andasibe

### ***Arecaceae***

*Bismarckia nobilis*

Isalo

*Dypsis* spp.

150 species occur

*Hyphaene coriacea*

Antsokay

*Raphia farinifera*

*Phoenix dactylifera*

Introduced

*Ravenea* sp.

### ***Asparagaceae***

*Asparagus* spp.

Anja, Isalo

*Dracaena* spp.

### ***Asphodelaceae***

'The Aloe of Madagascar' by Castillon and Castillon, 2010, is a fine monograph of the genus.

*Aloe divaricata*

Ifaty

*Aloe isaloensis*

Isalo

*Aloe viguieri*

Antsokay

### ***Commelinaceae***

*Coleotrype* sp.  
*Commelina* spp.

### ***Cyperaceae***

*Cyperus papyrus* var. *madagascariensis*  
*Cyperus* spp.

### ***Eriocaulaceae***

*Eriocaulon bifistulosum*

Probably this species at Ranomafana

### ***Iridaceae***

*Aristea* spp.  
*Crococsmia x crocosmiiflora*  
*Sisyrinchium* sp.

Naturalised at forest edge

### ***Liliaceae***

*Dianella ensifolia*

Ranomafana, Andasibe

### ***Orchidaceae***

*Aerangis decaryana*  
*Aerangis stylosa*  
*Angraecum compactum*  
*Angraecum viguieri*  
*Benthamia spiralis*  
*Bulbophyllum baronii*  
*Bulbophyllum henrici*  
*Cynorkis fastigiata*  
*Cynorkis graminea*  
*Cynorkis guttata*  
*Cynorkis lowiana*  
*Cynorkis* spp.  
*Eulophia ibityensis*  
*Eulophia reticulate*  
*Grammangis ellisii*  
*Jumellea teretifolia*  
*Lemurella culicifera*  
*Microcoelia* sp.  
*Oeonia rosea*  
*Phaius pulchellus*  
*Vanilla decaryana*  
*Vanilla madagascariensis*

A few in fine flower at Zombitse  
Andasibe  
Andasibe  
Andasibe  
Vohiparara forest floor 2014  
Rather common at Ranomafana  
Ranomafana  
1 at the Isalo campsite 2014  
Isalo  
By the small dam at Isalo 2014  
Ranomafana roadsides, an *Impatiens* mimic  
  
Grasslands 2014  
Grasslands 2014  
Andasibe  
Ranomafana  
A few in flower at Zombitse 2014  
Andasibe, leaves scale like  
Ranomafana, Andasibe, and Mantadia  
Terrestrial at Ranomafana 2014  
Antsokay, not in flower  
Antsokay, not in flower

### ***Pandanaceae***

*Pandanus* spp.

100 species occur in Madagascar

***Poaceae***

*Bambusa vulgaris aureo-variegata*

*Imperata cylindrica*

*Oriza sativa*

Lac Alarobia

1m tall grass with silvery white spike

***Pontederiaceae***

*Eichhornia crassipes* Water Hyacinth

***Smilacaceae***

*Smilax* sp.

Ranomafana

***Strelitziaceae***

*Ravenala madagascariensis* Traveller's Palm

***Velloziaceae***

*Xerophyta* sp.

Gone over east of Toliara