

Southern Tanzania

Flora & fauna of the Southern Highlands

A Greentours Trip Report

8th – 23rd January 2019

Led by Phil Benstead & Peter Steiger

8/1 travel

We all travelled by various routes. Six of us converging at Istanbul for the flight on to Dar, where Martin was already comfortably ensconced. The Istanbul team arrived in the early hours of the next day which was rather rude and for those applying for visas on arrival a little tedious. But eventually we were out and changing cash for the tour ahead. Our driver met us and there was a mercifully brief journey to the hotel. We were in bed by 0500 and most of us slipped immediately into a deep sleep.

9/1 early arrival in Dar and transfer to Kawe and Bongoyo Island

It was very hard to get up this morning but thankfully we only had a relaxed morning of acclimatisation ahead of us. The heat and humidity were very different from Northern Europe... People drifted in to breakfast as and when and it was sometime after coffee that we realised that Peter and Andreas were probably not in the hotel. Sure enough reception had neglected to tell us that their flight had been cancelled and that they would instead be arriving mid-morning...

We pottered around the grounds picking up some very beautiful birds despite the heat. Brown-breasted barbet was a nice surprise and we also had encounters with Zanzibar sombre greenbul, collared sunbirds and white-browed scrub-robin. Martin worked hardest and was rewarded with an amethyst sunbird. Offshore we scanned through a nice selection of terns but as the water dropped we were rather disappointed with the wader selection; a low species diversity and a lack of crab plovers being obvious compared to previous tours. Sacred ibises were scant consolation.

Peter and Andreas rocked up just before lunch and looked even more tired than us, which was kind of them. Lunch over we were eventually all aboard the small boat that ferried us offshore to Bongoyo Island. The island was rather busy with sun-worshippers and sadly we failed once again to find crab plover during our brief stay. We did the walk to Sharks Bay and found the mangrove kingfisher without too much trouble and a mangrove apple *Sonneratia alba* with numerous finger-like pneumatophors and large green fruits.

Peter got busy with an interesting scrub flora (the fireballs *Scadoxus multiflorus* and an orange flowering shrub *Pseuderanthemum hildebrandtii* were in spectacular bloom and a white terrestrial orchid with white dotted leaves was decorative) and Tim destroyed his sandals on the sharp coral rock. When the tide came in we spotted some nice moray eels just offshore. Heuglin's gulls travelled past the island and our first red-eyed doves caused an unlikely amount of confusion. Chugging back we had a rather elongated dinner. Adapting to the pace and rhythm of Africa is always important when you have been away a while. After dinner we held a general briefing on the tour and outlined what we would be doing the next day and then it was time for bed.

10/1 to Mikumi

Most of us managed to turn up on time this morning and meet up with our driving team. Salim and Mansoor got busy loading the bags on the roof whilst Phil went to wake up a rather sheepish Peter who had left his alarm clock on Swiss time... We headed off on the long drive to Mikumi knowing we had little time to stop en route if we were to hit lunch and a game drive at Mikumi. This was spectacularly frustrating at times as we cruised slowly past a delightful selection of common roadside birds and butterflies that we would have loved to spend time with.

Openbill storks were very frequent on this route and roadside wires delivered up a nice collection of bee-eaters, kingfishers and rollers but we had to keep moving. We stopped briefly for coffee and for a comfort stop in a sisal plantation but it was not until we entered Mikumi National Park that we really 'had' to stop for things. It would have been churlish to drive past a roadside giraffe, the first elephant or a close herd of impala. So we made a few stops for photographs and eventually hit the park ticket office to pick up our permit in reasonable time.

Arriving at our comfortable tented camp we lunched, enjoyed the fresher weather after a brisk rain shower and stashed our bags in our tents before heading out on a very enjoyable game drive. The access track was good for hobby, crested francolin, black-bellied bustard and tawny eagle but things got really exciting through the gate. We drove slowly and stopped frequently enjoying a large variety of new mammals and birds, including a nice palm-nut vulture. The mammal highlight came when we bumped into a pride of lions that had probably been forced out of long vegetation by the afternoon rain and were drying off *on* the road. We had very close views of a big male and a little further on three small cubs. In the background a Nile monitor stalked the grassland and elephants wandered about. Yellow barked acacia, sausage tree *Kigelia africana* and Baobab *Adansonia digitata* dominate the open savanna landscape, in the southwest topped by the silhouette of the Udzungwa mountains.

The lions had obviously made a kill and this had attracted a wide range of vultures and a few marabou storks. Red-necked spurfowl traipsed about and we bumped into a good flock of southern ground hornbills. Eventually as dusk approached we motored to the hippo pool. Hippos chuntered from the water and around the margins we saw our first water thick-knees and a single collared pratincole. Able to leave the vehicles to stretch our legs we got stuck into some invertebrates too, including a nice spotted sylph, a pretty skipper. As dusk approached we headed back to camp for dinner, at the restaurant we had very brief views of the galago and our first checklist session. Vuma camp is situated on a beautiful hillside in Miombo Woodland with white flowering clusterleaf tree *Terminalia mollis* and huge tree-cactus like *Euphorbia insignis*.

11/1 Mikumi and on to Hondo Hondo

Up early again for us this morning for another good safari in the park. The drive was good for birds, with many new species. At the gate we had a nice encounter with our first greater blue-eared starling. We chased golden pipits, longclaws and rollers for photographs. At a culvert we snapped away at both wire-tailed and lesser striped swallows. Back at the hippo pool in slightly overcast conditions we chased invertebrates again. The butterflies and odonates were interesting here and included *Tirumala petiverana* and *Pseudagrion glaucescens*.

Driving out the gate we headed back to Vuma Hills for lunch and had a good look at the butterflies in the grounds. Tim and Martin found a lovely congregation of butterflies from the balcony; the incredible woolylegs, *Pentila pauli* and *Baliochila hildgarda*, the plant enthusiasts were greeted

by the subtle perfume of the lilac Savanna ginger *Siphonochilus aethiopicus*. The pool had mud-puddling blues, rather disconcertingly.

We motored to Hondo Hondo, stopping at the bridge in the cane fields where we looked over the small swamp remnant. Things were initially quiet in the heat of the day but at four o'clock birds started to appear. The undescribed and endemic 'white-tailed' cisticola was first up and we eventually connected with the equally endemic Kilombero weaver. Butterflies and dragonflies were noted too before we headed to the comfort of Hondo Hondo. The Lodge with a beautiful garden and a local nature trail is situated at the foot of the Udzungwa Mountains with large unbroken rainforests with more than 3000 plant species. Giant yellow barked *Sterculia appendiculata* emerge above the dense tree canopy.

12/1 Udzungwa (mangabey tracking and the Sonjo trail)

A plentiful 0600 breakfast fuelled an energetic day in the field. Afterwards we drove down to the park HQ to sort out the inevitable paperwork and get briefed ahead of our monkey tracking session. Whilst this was taking place the tracking team hiked to find the Sanje mangabeys, an endemic primate of the Udzungwas with only a few thousand individuals for us. The HQ clearing produced some nice birds and butterflies and labeled native trees whilst we waited. Eventually we got news of the monkeys and headed off up a reasonable trail that wound up the mountain and along the scarp towards our lodge. We were not troubled by too many birds so we trudged uphill but Phil was pleased to find a number of interesting odonates. Huge forest trees like False Iroko *Antiaris toxicaria* and giant leaved cabbage tree *Anthocleista grandiflora* shaded our walking. The sweet and intense perfume of the large white flowered toad tree *Tabernaemontana pachysiphon* added a true tropical note to the forest.

High on the slope we finally reached the mangabeys after a three-hour trek and we got fantastic albeit rather brief views of the group as they crossed the trail in front of us. Time was pressing as they disappeared from view so we headed down the final leg of the circuit. On the way down we were captivated by arguably the most attractive butterfly of the tour – the incredible *Euxanthe tiberius* as well as a number of perched swordtails. Down at the bottom of the trail by the road we found our first African snout and glittering demoiselle.

After lunch back at base we split into two groups to tackle the nearby Sonjo trail; one to walk to the second waterfall and the other to stay in the cool riverbed and check out the invertebrates on offer... Both teams enjoyed the late afternoon. The riverbed team enjoyed a good show of ringed cascaders over the rapids on arrival. As this show finished the rocks started to produce a new gomphid – *Paragomphus cognatus*. Damselflies included the beautiful *Platycypha caligata* and *Pseudagrion kersteni* and *sublacteum*. As we left Gill found an insect which actually turned out to be a very attractive reed frog (*Afrixalus quadrivittatus*)! The team heading up to the waterfall enjoyed lowland rain forest with giant mobola plum tree *Parinari excelsa*, Mountain wagtail at the waterfalls and a surprising carpet of intense yellow flowering *Costus macranthus*, giving the forest floor a daffodil like appearance.

13/1 Kilombero river and Hondo Hondo

This morning we drove down to the Kilombero River for a canoe ride in the remnants of this once-great floodplain wetland. On the drive down we all stopped for views of Kilombero weaver and one carload was fortunate to see weavers nests being raided by an Ovambo sparrowhawk.

On arrival at the river we all got into a large canoe and set off. The river itself was rather disturbed but proved good for kingfishers and white-crowned lapwing. Side channels had more character and

immediately produced the yet-to-be-described Kilombero cisticola. Both the endemic cisticolas in this floodplain wetland have been known to ornithologists since the late 80s but have yet to be formally described. In that time most of their wetland habitat has been converted to large-scale sugar cane production. The boat ride was also good for odonates (including *Brachythemis lacustris*) and we saw our only Madagascar bee-eaters here too. Overhead we had a variety of raptors including palm-nut vulture, bateleur and fish-eagle. One of the few water plants was the white flowered Egyptian lotus *Nymphaea lotus*. A close immature Nile monitor was much photographed by all, a feat which involved a lot of manoeuvring of the long dugout canoe by the willing crew. Eventually the sun got the better of us and we headed back to the cars and onto the Lodge and lunch. Sadly the Women's Weaver co-operative was shut when we went past...

After lunch Phil and Tim sat down to go through their butterfly haul, the first of several such workshops during the tour. Afterwards a late afternoon walk produced good looks at *Anax ephippiger* and other dragons. Birds included Zanzibar bishop, bronze mannikin, blue-spotted wood-dove and white browed robin chat. Butterflies along the farmland streams included two crepuscular browns; *Bicyclus safitza* and *campinus*. Andreas and Peter meanwhile enjoyed an enthusiastic dance performance of colourfully dressed people in a nearby church and the varied local market at Mangula village.

14/1 Sanje Falls trail (Udzungwa)

Our day started with a great show of gentle monkeys and Udzungwa red colobus in the 'breakfast' clearing. Retz's helmetshrike appeared too briefly. The colobus eventually gathered on the lawn to eat grass together. Most of us had to leave this idyllic scene though, we were off up the nearby Sanje Falls trail. This involved yet another visit to the park HQ to fill in forms...

The Sanje Falls trail is the jewel in the crown of the park in many ways and always offers a nice range of wildlife to those who walk up to the waterfalls. Today was no exception and despite the slight threat of rain we remained dry throughout. Butterflies were exceptionally good and the dragonflies were diverting.

Reaching the first falls we enjoyed the view out over the village of Sanje and the plains. The river here produced blue cascaders and the cryptic horned rockdweller. Deep red flowered *Pentas bussei*, pink *Dissotis canescens* and a tree fern *Cyathea humilis* lined the water. A close by rock bank showed an African violet *Saintpaulia ionantha* in buds. Flying past some of us had a surprise African crowned eagle. Walking further we checked the other two falls. The beautiful Tanzania jewel was abundant here and the subject of many photographs. Our best sighting though was of a Werner's three-horned chamaeleon, it was high up a vine and making a slow getaway when we caught up with it. We had lunch and/or a swim at the third waterfall, fringed by deep magenta flowered *Impatiens wallerana* and the spirally leaved, pink flowering ginger *Fromomum alpinum*. Around us butterflies swarmed including the fantastic *Uranothemis delatorum* mud-puddling at our feet.

On the way down we stopped for invertebrates frequently. Butterflies were abundant and included some nice *Pseudacraea* and a nice *Charaxes lasti*. In one clearing Phil was rather excited to find a superb red basker (*Hadrothemis scabrifrons*) – a rarely photographed libellulid that is thought to breed in water-filled tree holes. Down at the bottom of the hill we guzzled jack fruit and drank coconut milk before heading back to the Lodge.

15/1 Baobab Valley and drive to Kisolanza

Today we relocated to Kisolanza, stopping after a couple of hours for a break on the Ruaha river in the Baobab Valley. Beautiful Baobab trees, the succulent Impala lily *Adenium multiflorum* and the surprising blue barked corkwood *Commiphora caerulea* marked the dryness of the valley in the rain shadow of the Udzungwa Mountains. It was hot when we arrived but birds were still evident. Ashy starlings perched on snags. A nearby tree had spot-flanked barbet too. We chased calling red-chested cuckoos for the first time, getting a glimpse for our troubles as it flew in and immediately spooked. Tim got stuck into the butterflies here, finding a handful of pierids that were not seen elsewhere on the tour. Dragonflies included more acacia sprite and riverjack.

After tucking into a plate of chips and our packed lunches we headed off up the road to Kisolanza. Stops were made for hinged tortoises and Abdim's storks en route. At dusk we found ourselves driving up the access track to Kisolanza, our home for the next two nights.

16/1 Isimila and Kisolanza

Poor weather scotched our early morning bird walk and dogged our activities during the morning session too. After breakfast we headed for the stone age site at Isimila. This site holds both fantastic wildlife and interesting archeology. After an introductory preamble in the small museum we headed out into the drizzle searching for orchids and birds. We found another hinged tortoise wandering in the gorge. Butterflies (mostly pierids) appeared with surprising regularity considering the weather. Some bulb plants like a small yellow orchid *Platycoryne ambigua* and whitish *Habenaria goetzeana*, orange-flowered *Tritonia laxiflora*, white-starred *Chlorophytum sp*, and the deep red-flowered *Gloriosa superba* appeared along the track in the dry Miombo woodland. *Carissa edulis* offered its white pink flushed flower stars a delightful perfume and red edible berries.

At the end of the gorge we reached a stunning area of small hoodoo pillars and here we found both red-rumped swallow and white-headed saw-wings. Walking through the narrow part of the gorge we flushed a fine barn owl. Searching the rocky outcrops produced cinnamon-breasted bunting and Gill and Dave found a nice cliff-chat. Grassy areas were full of orchids. As we wandered back to the bus we found nice male rock agamas and a troupe of vervet monkeys.

Heading back to Kisolanza we lunched and then headed out on a walk to the dam. This was good for birds with lesser jacana, moorhen and yellow-billed duck on the water. An African black crane stalked the margin briefly. The water surface held countless yellow flowered *Nymphoides peltata*, on the southern shore *Gardenia ternifolia* spread out its heavy sweet perfume. Phil got busy cataloguing the damselflies and dragonflies but the weather soon became overcast and a storm threatened. We failed to get round the lake on the usual circuit due to high water but the meadow at the end gave us views of our first African wattled lapwing. As we walked back the heavens opened up and we hoisted our umbrellas and trudged back through the puddles and pouring rain. Dinner was livened up by the arrival of Rondi, a third leader for the Kitulo leg and most welcome.

17/1 Sao Hill marsh and Little Ruaha river

Another relocation day with a few great stops. Our early morning birding session was in thick mist... We nearly saw a few new birds. Our first stop after breakfast was at the Sao Hill marsh site that is fantastic for orchids, a taster for the incomparable Kitulo NP. The botanists wandered in a happy daze, enjoying the massed shows of orange *Disa*, red *Satyrium* and white *Habenaria* Orchids. Dave and Gill went birding picking up Fuellborne's longclaw and montane marsh widowbird. Phil and Tim checked out invertebrates in the meadow, picking up some new butterflies for the tour and the diminutive *Diplacodes pumila*.

Driving on we lunched en route and had time for a quick stop at the Little Ruaha campsite. Here rain threatened and we did not linger in the blustery conditions. A few dragonflies and butterflies were spotted and then we were on our way again. One last stop and a short walk down a track gave us two more orchid species, orange flowering *Thunbergia gregorii* and the yellow green wheel like fruits of *Pterocarpus angolensis*, contrasting nicely with the dominant blue Miombo *Brachystegia manga* and then we continued on to Matamba. Arriving at the village we were soon installed in our basic accommodation and having our first Mama Eden dinner, which was both tasty and remarkably similar to future lunches and dinners at this establishment...

18/1 Kitulo

A short drive after breakfast took us to the park HQ for the inevitable permits and entrance fees. As we waited a mixed flock of common swift and house martins swooped overhead and a *Cussonia arborea* tree attracted myriad bees with its long spiked flowers. Eventually though we were on our way uphill to the park. We parked up at the start of the Nombe Valley. Rondi led us through park. The flora of this montane and subalpine grassland is a complex result of natural burning and grazing and is simply unbelievable, the density and diversity of orchids is staggering even to a non-botanist. The botanists walked around with smiles on their faces and it was infectious. The mainly South-African genera *Satyrium* and *Disa* reach here their northern rim of distribution with a wealth of species in an astonishing dominance of orange, red and crimson flower colours. But also the *Cynorkis*, *Eulophia*, *Habenaria*, *Neobolusia* and the iris family with the elegant flowers of *Moraea* and *Dierema* show presence together with showy *Impatiens gomphophylla* and *rosulata*, *Clematopsis uhehensis*, pure white flowered *Delphinium leroyi* and brilliant red *Kniphofia goetzei*, *Kniphofia grantii* and *Aloe nuttii* to mention only a few. After a few hours we have found more than twenty terrestrial orchid and well over a hundred plant species. Tim and Phil got busy with the butterflies and Dave and Gill tried to track down one of the many displaying wing-snapping cisticolas. The butterfly team soon encountered the Kitulo endemic – *Neocoenyra petersi* – as well as *Cacyreus palemon* and the beautiful blue *Harpencyreus marungensis*.

We ambled around until lunch. Birds included many montane marsh widowbirds, the stunning malachite sunbird and an occasional augur buzzard. After a tasty lunch we headed out in the cars to the lower stations of the valley. More orchids and despite the overcast conditions a few odonates and butterflies.

Just before we headed home we nipped up the main road to look for the Denham's bustard. Sure enough in the usual area we found one magnificent example. A nice way to end the day.

19/1 Kitulo

This morning we tackled the ridge walk to look for more orchids and *Moreas*. This gentle uphill walk took us up to the rocky Matamba Ridge over 2700m asl and past some nice flora and birds. A highlight was the deeply blue centred white flowering *Moraea callista*. Arriving at the ridgetop in blustery rather threatening conditions we had time to enjoy the flora and 'scope the forest below us. Just as Rondi had promised we found a beleaguered troupe of Angolan black-and-white colobus far below us in one of the forest patches.

The weather suggested we should head down and so we did. On the way we enjoyed birding the more sheltered spots which produced our first good views of Cape robin-chat and other more commonly encountered species. Nearing our lunch spot we watched a common hottentot (*Geenes niso*) 'nectaring' on some civet scat. Nice. Our lunch was much tastier.

In the afternoon we cruised the main road, picking up the Denham's bustard again and chasing Fuelleborn's longclaw for photographs. At one point we had a small group of red-winged francolins right by the car. Another great day on the plateau.

After work Phil and Gill went shopping in the village, stocking up on sarongs and other fabrics.

20/1 transfer to Utengule

Leaving Mama Eden's came as a relief to all but it had certainly been an experience to live in a real African village for a change. Our trip over the plateau and down into the lowlands was eventful. Heavy fog covered the plateau and the mountain forest dominated by *Hagenia abyssinica*. We managed at last to get decent views of the longclaw.

We were nearly out of the park when we found that a lorry had broken down in the middle of the road. Traffic was stopped willy-nilly and we even watched as one bus slid off the road and into a ditch! We all got out of the vehicles, whilst our able drivers got the 4WDs round the various obstacles and back onto the road. The rest of the journey was easy enough. We stopped at the main road to drop Rondi off at her taxi, she was heading to Iringa and an exciting new Greentours tour (Tanzania and Malawi).

Arriving at the lovely Utengule we settled into our rooms and headed for lunch. Afterwards we drove through the intermittent showers up to Lunji. This farm is high above Utengule and very good for birds. In fact the drive up was repeatedly interrupted by one thing after another. First we stopped for brown parrots. Next it was a flock of white-crested helmetsrikes. Eventually we got to Lunji but no-one wanted to come out and open the gate in the rain. We waited patiently. Eventually we had a little time in the garden. Here we quickly connected with two fabulous Whyte's barbets and enjoyed an array of other new birds. But dusk was approaching and we headed back to base.

21/1 Ngosi Crater walk

A diminished team left the comfort of Utengule and headed out through the busy town of Mbeya and on to the Ngosi Crater on a beautiful day. En route we saw our only common fiscals of the trip. We stopped at the entrance gate and negotiated for a couple of guides and paid our entrance fees. This took some time allowing us to check out the wetland at the gate. This is always good for odonates and today was no exception. The place was heaving with *Sympetrum fonscolombii* and had a scattering of other libellulids including the attractive *Trithemis dorsalis* and *Diplacodes luminans*.

Bumping up the track in the sun we were pleased to see that butterflies were on the wing and included many new species. Just before the end of the track we were stopped by a fallen tree, which had to be removed before we could continue. Entering the forest reserve we passed through a beautiful dense mountain rain forest, often dominated by the big leaved parasol tree *Polyscias fulva*, with an understory full of wild banana *Ensete ventricosa*, green stemmed mountain bamboo *Arundinaria alpina*, colourful *Impatiens spp*, orange flowered *Begonia sutherlandii* and the epiphytic *Streptocarpus solenanthus*, showing its blue flower above the tongue like leaf at one point. The terrestrial orchid *Calanthe sylvatica* attracted with its purple blue flowers, while none of the few epiphytic orchids was in flower. The walk up was very birdy this year and we kept finding small flocks that contained exciting birds, including many yellow white-eyes. Chapin's apalis appeared in the canopy, along with yellow-throated wood-warbler. Lower down in the shrub layer we connected with bar-throated apalis. Greenbuls were evident and we identified three species. Lurking in the flocks the rather dowdy green barbet was a nice find. A lesser honeyguide under the canopy was a surprise. Forest batis popped up occasionally.

Eventually we gained the volcano rim and lunched looking down into the emerald green crater lake. Walking down was a little faster and we got down quickly. From the end of the trail we walked the access track to the junction picking up great views of the black-and-white colobus and rather poor views of a number of Livingstone's turaco. A family of beautiful white-starred robins eventually surrendered. The whole walk had been very good for butterflies (see the species list). At 1600 we headed back to the hotel. A night walk around the grounds after dinner was very quiet and rain soon stopped play...

22/1 Utengule and Dar

Rain spoiled our last bird walk of the trip. We ended up sheltering in the open air bar area and watching a slow parade of birds through the nearby bushes. We managed our only red-faced crombecs of the trip and had good looks at a whitethroat and a garden warbler! Displaying black-backed puffback was well received. The slope above the hotel offers fine stands of the typical Miombo dry forest, dominated by green and nicely contrasting blue miombo *Brachystegia spiciformis* and *mange*. *Gladiolus dalenii* showed its impressive pale orange yellow flowers.

After breakfast we attended an informative coffee tasting session before heading for the airport. There had been much changing of flight times and size of the incoming aircraft so we elected to go to the airport in good time to ensure we made the flight. So we lunched at the airport and before we knew it we were in Dar. One of Salim's mates met us in a big bus and we made our way very slowly through the incredible rush hour traffic, offering time to admire the planted but native coastal, orange flowering sea trumpet *Cordia subcordata* and the various offers of the flying dealers using their chances at each traffic light. Eventually we were back to the Mediterraneo and our last supper together.

23/1 flight home

Transferring to the airport at midnight we made much better time in the light traffic. In the airport we said our goodbyes to Martin who was on a later flight to Kenya and headed into the departure hall. Andreas and Peter went on to their Mount Kenya trekking, unfortunately without Rob who had injured his foot. Phil and Tim had one last butterfly workshop before the flight. Hopefully everyone had hassle-free journeys to their final destinations. A very enjoyable trip with a great bunch of people.

Mammals recorded in Tanzania between 14th and 28th January

Udzungwa red colobus	<i>Piliocolobus gordonorum</i>	Frequently encountered at Udzungwa. The lodge garden being a superb place to watch this species.
Angolan black-and-white colobus	<i>Colobus angolensis</i>	Seen poorly on the way down from the mangabeys in Udzungwa by some. Incredibly the forest remnants viewed from high on the Matamba Ridge yielded at least five long-distance individuals just as Rondi said they might... Closer views obtained at Ngosi Crater.
Yellow baboon	<i>Papio cynocephalus</i>	Widespread in lowlands.
Sanje mangabey	<i>Cercocebus sanjei</i>	Udzungwa – eventually seen at 750 m asl. after a three hour trek. Hard work but well worth the effort.
Gentle monkey	<i>Cercopithecus mitis</i>	One feeding with the red colobus at the start of the Sonjo trail (Udzungwa). After that we had occasional encounters especially around the Hondo Hondo clearing during our free time there. Also along the Ngosi Crater trail. The <i>moloneyi</i> sub-species is part of the <i>mitis</i> cluster.
Vervet monkey	<i>Chlorocebus aethiops</i>	Recorded in small troupes at Mikumi and Isimila.
Small-eared greater galago	<i>Otolemur garnetti</i>	Vuma Hills (Mikumi) – just one briefly this year.
Galago sp.	<i>Galagoides sp.</i>	Heard nightly at Hondo Hondo (Udzungwa), eyeshine seen here was this species too.
Slender mongoose	<i>Herpestes sanguinea</i>	One at Udzungwa.
Banded mongoose	<i>Mungos mungo</i>	Plentiful in the Udzungwa area this year.
Lion	<i>Panthera leo</i>	A very close male on the first game drive at Mikumi, another nearby and a charming trio of cubs too.
African elephant	<i>Loxodonta africana</i>	Mikumi – good numbers daily. Martin had some at night under the mango tree outside his tent at Hondo Hondo.
Common zebra	<i>Equus quagga</i>	Mikumi.
Hippopotamus	<i>Hippopotamus amphibius</i>	Mikumi.
a hyrax	<i>sp?</i>	One seen well on rocks under the canopy on the Sanje Falls trail (Udzungwa) but proved difficult to identify.
Common warthog	<i>Phacochoerus africanus</i>	Mikumi.
Giraffe	<i>Giraffa camelopardis</i>	Mikumi.
African buffalo	<i>Syncerus caffer</i>	Mikumi.
Bushbuck	<i>Tragelaphus scriptus</i>	One at Mikumi.
Bush duiker	<i>Sylvoicapra grimmia</i>	Four or five at Kitulo NP.
reedbuck sp.	<i>Redunca redunca/arundinum</i>	One at Mikumi.
Impala	<i>Aepyceros melampus</i>	Many at Mikumi.
Wildebeest	<i>Connochaetes taurinus</i>	Mikumi – small scattered herds and individuals.

Birds recorded in Tanzania between 14th and 28th January

Little grebe	<i>Tachybaptus ruficollis</i>	One at Kisolanza.
Long-tailed cormorant	<i>Phalacrocorax africanus</i>	Scattered records.
Cattle egret	<i>Bubulcus ibis</i>	Widespread in lowlands.
Great egret	<i>Egretta alba</i>	Scattered records.
Little egret	<i>Egretta garzetta</i>	Scattered records away from the coast.
Dimorphic egret	<i>Egretta dimorpha</i>	Dar. This species is not recognised by many authorities and is usually lumped with little egret.
Intermediate egret	<i>Mesophoyx intermedia</i>	A few noted at Mikumi.
Purple heron	<i>Ardea purpurea</i>	Four in the big roadside wetland near Sao Hill.
Grey heron	<i>Ardea cinerea</i>	Dar and Mikumi.
Black-headed heron	<i>Ardea melanocephala</i>	Widespread, even some stalking the flower-rich grassland at Kitulo NP.
Black-crowned night-heron	<i>Nycticorax nycticorax</i>	One at Kisolanza.
Hamerkop	<i>Scopus umbretta</i>	Scattered records throughout.
Abdim's stork	<i>Ciconia abdimii</i>	Two good roadside flocks either side Kisolanza. A large flock of 450+ thermalling over Kitulo on one of the days there.
Woolly-necked stork	<i>Ciconia episcopus</i>	A few at Mikumi and en route to the Kilombero River.
African open-billed stork	<i>Anastomus lamelligerus</i>	Big numbers this year with birds noted on the road out from Dar and small numbers at Mikumi.
Marabou stork	<i>Leptotilus crumeniferus</i>	Small numbers at Mikumi.
Sacred ibis	<i>Threskiornis aethiopicus</i>	Small numbers along the coast at Dar.
Hadada ibis	<i>Bostrychia hagedash</i>	Small numbers at Mikumi. Recorded occasionally thereafter.
Egyptian goose	<i>Alopochen aegyptiacus</i>	One at Mikumi.
Knob-billed duck	<i>Sarkidiornis melanotus</i>	Single at Mikumi. Five along the Kilombero River.
Yellow-billed duck	<i>Anas undulata</i>	Two at Kisolanza and three the next day in the Sao Hill wetlands.
African black duck	<i>Anas sparsa</i>	Three flushed by the botanists at Kitulo NP on the first day there. A trip highlight for some.
White-faced whistling-duck	<i>Dendrocygna viduata</i>	At least one in Mikumi for Dave.
Black kite	<i>Milvus migrans</i>	Widespread in small numbers, but mostly encountered between Mikumi and Dar.
Black-shouldered kite	<i>Elanus caeruleus</i>	A few on one day only. A poor show.
African fish-eagle	<i>Haliaeetus vocifer</i>	An adult on the drive from Dar. One at Mikumi.
Palm-nut vulture	<i>Gypohierax angolensis</i>	A few in Mikumi and on the Kilombero.
Hooded vulture	<i>Necrosyrtes monachus</i>	Small numbers at the lion-kill in Mikumi.
Lappet-faced vulture	<i>Torgos tracheliotis</i>	Singles on both days at Mikumi.
African white-backed vulture	<i>Gyps africanus</i>	Good numbers in Mikumi. Small numbers along the Kilombero River.
Black-breasted snake-eagle	<i>Circaetus pectoralis</i>	One whilst driving on the day we left Kisolanza.
Brown snake-eagle	<i>Circaetus cinereus</i>	One on the drive to Mikumi and another near Vuma Hills.
Bataleur	<i>Terathopius ecaudatus</i>	Common at Mikumi and a few either side along the main road. Also on the Kilombero River.
Eurasian marsh harrier	<i>Circus aeruginosus</i>	One only en route to Mikumi. A few noted at Mikumi and along the Kilombero.
Pallid harrier	<i>Circus macrourus</i>	A male on the Kitulo plateau on the first day. A female the next. A poor showing.

Little sparrowhawk	<i>Accipiter minullus</i>	One over the park office at Udzungwa NP.
African goshawk	<i>Accipiter tachiro</i>	One en route to Kisolanza.
African harrier-hawk	<i>Polyboroides typus</i>	One only en route to Kisolanza.
Augur buzzard	<i>Buteo augur</i>	Small numbers daily on the Kitulo plateau.
Common buzzard	<i>Buteo buteo</i>	Noted on six days in the highlands.
Lesser spotted eagle	<i>Aquila pomarina</i>	One en route to Mikumi on Day 2.
Tawny eagle	<i>Aquila rapax</i>	One at Mikumi.
Crowned hawk-eagle	<i>Stephanoaetus coronatus</i>	One flew past the the first falls on the Sanje Falls trail (Udzungwa).
Eurasian kestrel	<i>Falco tinnunculus</i>	At least three at Mikumi on both days there.
Grey kestrel	<i>Falco ardosiacus</i>	One en route to Songwe airport when our bins were packed away to travel.
Eurasian hobby	<i>Falco subbuteo</i>	A few at Mikumi on both days.
Helmeted guineafowl	<i>Numida meleagris</i>	Small numbers at Mikumi and scattered records thereafter.
[Crested guineafowl]	<i>Guttera pulcherani</i>	Feathers found along the Sonjo trail (Udzungwa).
Crested francolin	<i>Francolinus sephaena</i>	One at Mikumi on the roadside after heavy rain.
Red-winged francolin	<i>Francolinus levaillantii</i>	A few seen at Kitulo on the second day. Others heard there.
Red-necked spurfowl	<i>Francolinus afer</i>	Common at Mikumi.
Common quail	<i>Coturnix coturnix</i>	Singing birds commonly heard on the Kitulo plateau. Many flushed underfoot there.
Blue quail	<i>Coturnix adansonii</i>	One for Martin flushed from a wet area at Mikumi.
African black crane	<i>Amaurornis flavirostris</i>	One on the dam at Kisolanza.
Common moorhen	<i>Gallinula chloropus</i>	A few on the dam at Kisolanza.
Denham's bustard	<i>Neotis denhami</i>	A single bird at Kitulo on the evening of the first day and again the next day.
Black-bellied bustard	<i>Eupodotis melanogaster</i>	Frequently encountered at Mikumi this year.
African jacana	<i>Actophilornis africanus</i>	Recorded in small numbers on the canoe trip on the Kilombero River.
Lesser jacana	<i>Microparra capensis</i>	Small numbers on the dam at Kisolanza this year...
Water thick-knee	<i>Burhinus vermiculatus</i>	At least 10 at the hippo pool at Mikumi and more in the park the next day.
Collared pratincole	<i>Glareola pratincola</i>	One by the hippo pool at Mikumi on the first day and a big flock of 150+ by a pool the next day there.
Blacksmith lapwing	<i>Vanellus armatus</i>	Small numbers at Mikumi.
Spur-winged lapwing	<i>Vanellus spinosus</i>	One or two on the drive to Mikumi.
African wattled lapwing	<i>Vanellus senegallus</i>	Five at Kisolanza and one at Sao Hill marsh.
White-crowned lapwing	<i>Vanellus albiceps</i>	Two on the boat ride on the Kilombero River.
Crowned lapwing	<i>Vanellus coronatus</i>	Small numbers at Mikumi.
Three-banded plover	<i>Charadrius tricollaris</i>	A few around the hippo pool at Mikumi.
Common ringed plover	<i>Charadrius hiaticula</i>	Small numbers along the coast at Dar.
Grey plover	<i>Pluvialis squatarola</i>	Scattered along the coast at Dar.
Common sandpiper	<i>Actitis hypoleucos</i>	Scattered records.
Green sandpiper	<i>Tringa ochropus</i>	A few at Mikumi.
Common greenshank	<i>Tringa nebularia</i>	A few at Dar and one at the hippo pool at Dar.
Marsh sandpiper	<i>Tringa stagnatilis</i>	One at Dar.
Whimbrel	<i>Numenius phaeopus</i>	A few on Bongoyo island offshore from Dar.
Heuglin's gull	<i>Larus heuglini</i>	Small numbers along the coast at Dar.
Sooty gull	<i>Larus hemprichii</i>	Small numbers along the coast at Dar.
Gull-billed tern	<i>Gelochelidon niloticus</i>	Two along the beach at Dar.
Lesser crested tern	<i>Sterna bengalensis</i>	Small numbers along the beach at Dar.

Greater crested tern	<i>Sterna bergii</i>	Small numbers along the beach at Dar.
Common tern	<i>Sterna hirundo</i>	Small numbers along the beach at Dar.
Saunders' tern	<i>Sterna saundersi</i>	Two or three along the beach at Dar.
Feral pigeon	<i>Columba livia</i>	Small numbers in towns.
Emerald-spotted wood-dove	<i>Turtur chalcospilos</i>	Scattered records in lowlands.
Blue-spotted wood-dove	<i>Turtur afer</i>	One at Hondo Hondo (Udzungwa).
Tambourine dove	<i>Turtur tympanistris</i>	One at the Kilombero swamp remnant en route to Hondo Hondo.
Dusky turtle dove	<i>Streptopelia lugens</i>	A few singles en route to Kisolanza.
Ring-necked dove	<i>Streptopelia capicola</i>	Widespread.
Red-eyed dove	<i>Streptopelia semitorquata</i>	Only seen at Bongoyo and along the Kilombero.
Laughing dove	<i>Streptopelia senegalensis</i>	One at Baobab Valley. A few whilst driving the day we left Kisolanza.
Brown parrot	<i>Poicephalus meyeri</i>	Small numbers above Utengule.
Livingstone's turaco	<i>Tauraco livingstonii</i>	Common at Ngosi Crater but hard to get good views this year.
Black-and-white cuckoo	<i>Oxylophus jacobinus</i>	One at Isimila for Peter.
Red-chested cuckoo	<i>Cuculus solitarius</i>	One seen poorly in Baobab Valley. Heard frequently thereafter but without us getting views.
Diederik cuckoo	<i>Chrysococcyx caprius</i>	A few seen in the Kilombero region. Heard elsewhere.
White-browed coucal	<i>Centropus superciliosus</i>	Widespread.
Barn owl	<i>Tyto alba</i>	One at the hoodoo end of the canyon at Isimila.
[African scops-owl]	<i>Otus senegalensis</i>	Heard at Hondo Hondo (Udzungwa) and Kisolanza.
[Fiery-necked nightjar]	<i>Caprimulgus pectoralis</i>	Heard briefly at dusk at Utengule.
Little swift	<i>Apus affinis</i>	Widespread.
White-rumped swift	<i>Apus caffer</i>	A few at the bridge over the Kilombero swamp remnant.
Eurasian swift	<i>Apus apus</i>	Scattered records, often in large gatherings.
African palm swift	<i>Cypsiurus parous</i>	Widespread.
Speckled mousebird	<i>Colius striatus</i>	Frequently encountered.
Malachite kingfisher	<i>Alcedo cristata</i>	A few along drainage channels in the cane fields at Hondo Hondo (Udzungwa) and along the Kilombero River.
Grey-headed kingfisher	<i>Halcyon leucocephala</i>	One en route to Mikumi. A few in the Udzungwa area.
Striped kingfisher	<i>Halcyon chelicuti</i>	Good numbers along the road en route to Mikumi. Small numbers in the cane-fields near Hondo Hondo.
Brown-hooded kingfisher	<i>Halcyon albiventris</i>	One en route to Mikumi. Small numbers in the cane-fields near Hondo Hondo. Also at and above Utengule.
Mangrove kingfisher	<i>Halcyon senegaloides</i>	One or two seen well at Bongoyo Island on the first day, others heard there.
Pied kingfisher	<i>Ceryle rudis</i>	Noted on three dates, seen very well along the Kilombero River.
Little bee-eater	<i>Merops pusillus</i>	Scattered records (five dates).
European bee-eater	<i>Merops apiaster</i>	Widespread and excellent.
Madagascar bee-eater	<i>Merops superciliosus</i>	A few along the Kilombero River.
Northern carmine bee-eater	<i>Merops nubicus</i>	Martin saw two on the drive to Mikumi.
Broad-billed roller	<i>Eurystomus glaucurus</i>	Scattered records. Our best views were at Lunji (above Utengule).

Lilac-breasted roller	<i>Coracias caudata</i>	Frequent whilst travelling in the lowlands mostly but common in Mikumi.
European roller	<i>Coracias garrulus</i>	A few en route to Mikumi.
African hoopoe	<i>Upupa africana</i>	One at Mikumi.
Violet wood-hoopoe	<i>Phoeniculus damarensis</i>	Two on the main road through Mikumi.
Green wood-hoopoe	<i>Phoeniculus purpureus</i>	Two large groups above Utengule.
Common scimitarbill	<i>Rhinopomastes cyanomelas</i>	One en route to Mikumi.
Red-billed hornbill	<i>Tockus erythrorhynchus</i>	Seen by some in Baobab Valley. Split in Clements as Tanzanian red-billed hornbill <i>Tockus ruahae</i> .
African grey hornbill	<i>Tockus nasutus</i>	Common at Mikumi. One whilst driving from Kisolanza.
Crowned hornbill	<i>Tockus alboterminatus</i>	Good numbers around Hondo Hondo (Udzungwa). A few birds at Utengule and heard and glimpsed at Mikumi.
Trumpeter hornbill	<i>Ceratogymna bucinator</i>	Udzungwa, where common and vocal.
Silvery-cheeked hornbill	<i>Ceratogymna brevis</i>	A few around the Hondo Hondo (Udzungwa) clearing (3 dates).
Southern ground-hornbill	<i>Bucorvus leadbeateri</i>	Several large family groups at Mikumi on both days.
[Yellow-rumped tinkerbird]	<i>Pogoniulus bilineatus</i>	Heard at Udzungwa.
Yellow-fronted tinkerbird	<i>Pogoniulus chrysoconus</i>	Heard at Utengule.
Red-fronted tinkerbird	<i>Pogoniulus pusillus</i>	Only in the hotel garden in Dar on the first day.
*Whyte's barbet	<i>Stactolaema whytii</i>	Two at Lunji (above Utengule).
*Green barbet	<i>Stactolaema olivacea</i>	Small numbers at Ngosi Crater this year.
Spot-flanked barbet	<i>Tricholaema lachrymosa</i>	A few at Baobab Valley, Kisolanza and Isimila.
*Brown-breasted barbet	<i>Lybius melanopterus</i>	One in the hotel garden in Dar on the first day was a surprise.
Lesser honeyguide	<i>Indicator minor</i>	A single in the forest on the Ngosi Crater trail was unusual in deep forest.
Cardinal woodpecker	<i>Dendropicos fuscescens</i>	A female at Baobab Valley was our only woodpecker of the trip...
Rufous-naped lark	<i>Mirafra africana</i>	Kitulo - small numbers daily.
Rock martin	<i>Hirundo fuligula</i>	A few at Utengule.
Banded martin	<i>Riparia cincta</i>	A few at Kitulo.
Common house martin	<i>Delichon urbica</i>	Small numbers at Kitulo, mixed in with Eurasian swifts.
Mosque swallow	<i>Hirundo senegalensis</i>	Seen en route to Mikumi. A few at Utengule.
Red-rumped swallow	<i>Hirundo daurica</i>	Isimila and Kitulo.
Lesser striped swallow	<i>Hirundo abyssinica</i>	Widespread.
Barn swallow	<i>Hirundo rustica</i>	Widespread.
Wire-tailed swallow	<i>Hirundo smithi</i>	Occasionally encountered in lowlands.
Black saw-wing	<i>Psalidoprocne pristoptera</i>	A few at Udzungwa.
White-headed saw-wing	<i>Psalidoprocne albiceps</i>	Three or four at Isimila.
Grey-rumped swallow	<i>Pseudhirundo griseopyga</i>	A few at Sao Hill marsh.
African pied wagtail	<i>Motacilla aguimp</i>	Pair at Baobab Valley. Sometimes seen in transit. Common at Utengule.
Mountain wagtail	<i>Motacilla clara</i>	One on the Sonjo trail. Two at Sanje Falls (Udzungwa).
Grey wagtail	<i>Motacilla cinerea</i>	One above the first falls on the Sanje Falls trail (Udzungwa). A vagrant to southern Tanzania?
Golden pipit	<i>Tmetothylacus tenellus</i>	A large family group on one of the drives into Mikumi.
Yellow-throated longclaw	<i>Macronyx croceus</i>	Common at Mikumi

Fuelleborn's longclaw	<i>Macronyx fuellebornii</i>	At least two at Sao Hill Marsh. Common at Kitulo along the main road.
Grassland pipit	<i>Anthus cinnamomeus</i>	Commonly encountered at Kitulo.
Tree pipit	<i>Anthus trivialis</i>	Two at Kisolanza. Others heard and glimpsed elsewhere.
Common bulbul	<i>Pycnonotus barbatus</i>	Widespread.
Shelley's greenbul	<i>Andropadus masukensis</i>	Seen in several bird parties on the Ngosi crater trail.
Mountain greenbul	<i>Andropadus nigriceps</i>	A few on the Ngosi crater trail.
Zanzibar sombre greenbul	<i>Andropadus importunus</i>	Dar es Salaam – several in the hotel garden.
Yellow-bellied greenbul	<i>Chlorocichla flaviventris</i>	Perhaps this species feeding in fruiting trees along the Ngosi crater trail.
Cape robin-chat	<i>Cossypha caffra</i>	Small numbers in thick streamside vegetation at Kitulo.
White-browed robin-chat	<i>Cossypha heuglini</i>	Widespread.
[White-chested alethe]	<i>Alethe fuelleborni</i>	Probably this species glimpsed along the Ngosi crater trail.
Whinchat	<i>Saxicola rubetra</i>	A few daily at Kitulo.
African stonechat	<i>Saxicola torquata</i>	Kisolanza and Kitulo.
Northern wheatear	<i>Oenanthe oenanthe</i>	One at Mikumi.
[Thrush nightingale]	<i>Luscinia luscinia</i>	Heard at Kisolanza.
White-browed scrub-robin	<i>Cercotrichas leucophrys</i>	Dar.
Familiar chat	<i>Cercomela familiaris</i>	Pair at Isimila.
Cliffchat	<i>Thamnodia cinnamomeiventris</i>	One at Isimila for Dave and Gill.
Dark-capped yellow warbler	<i>Chloropeta natalensis</i>	Single bird at Kitulo. The nominate race is very different from the more widespread 'dark-capped' race.
Sedge warbler	<i>Acrocephalus schoenobaenus</i>	One along the Kilombero River.
African reed warbler	<i>Acrocephalus baeticatus</i>	Kilombero River.
[Lesser swamp warbler]	<i>Acrocephalus gracilirostris</i>	Heard from the canoe on the Kilombero River.
Eastern olivaceous warbler	<i>Hippolais pallida</i>	One at Mikumi.
Garden warbler	<i>Sylvia borin</i>	One in Dar. One at Utengule.
Common whitethroat	<i>Sylvia communis</i>	One at Utengule.
Red-faced crombec	<i>Sylvietta whytii</i>	Two at Utengule.
*Yellow-throated wood-warbler	<i>Phylloscopus ruficapillus</i>	One or two along the Ngosi crater trail.
[Zitting cisticola]	<i>Cisticola juncidis</i>	Heard somewhere between Dar and Hondo Hondo!
Wing-snapping cisticola	<i>Cisticola ayresii</i>	Kitulo – the display of this diminutive species provided the soundtrack to our visits to the plateau.
Rattling cisticola	<i>Cisticola chiniana</i>	A few at Mikumi and heard elsewhere whilst driving.
Churring cisticola	<i>Cisticola njombe</i>	Numbe Valley (Kitulo) and more the next day at Kitulo.
Kilombero cisticola	<i>Cisticola sp.nov.</i>	Pair seen well on the canoe ride on the Kilombero River.
Siffling cisticola	<i>Cisticola brachypterus</i>	Pair feeding a parasitic weaver at Kisolanza.
White-tailed cisticola	<i>Cisticola sp.nov.</i>	A pair briefly at the swamp remnant site in the Kilombero Valley.
Tawny-flanked prinia	<i>Prinia subflava</i>	Widespread.
Grey-backed camaroptera	<i>Camaroptera brachyura</i>	Isimila, heard elsewhere.
Bar-throated apalis	<i>Apalis thoracica</i>	A few along the Ngosi crater trail.
*Chapin's apalis	<i>Apalis chapini</i>	Two along the Ngosi crater trail.

African grey flycatcher	<i>Bradornis microrhynchus</i>	A few at Isimila stone age site, Kisolanza and Utengule.
Spotted flycatcher	<i>Muscicapa striata</i>	Small numbers in the hotel garden at Dar and out on Bongoyo island on day 1. Thereafter noted occasionally.
African dusky flycatcher	<i>Muscicapa adusta</i>	Isimila.
Lead-coloured flycatcher	<i>Myioparus plumbeus</i>	One above Utengule.
White-starred robin	<i>Pogonocichla stellata</i>	A family party along the Ngosi crater trail.
Black-throated wattle-eye	<i>Platysteira peltata</i>	One or two on Bongoyo Island this year.
Chinspot batis	<i>Batis molitor</i>	One at Kisolanza.
Forest batis	<i>Batis diops</i>	A few at Ngosi Crater.
African paradise-flycatcher	<i>Terpsiphone viridis</i>	Widespread.
African hill babbler	<i>Illadopsis abyssinica</i>	A few along the Ngosi crater trail.
Northern pied babbler	<i>Turdoides hypoleuca</i>	Always a surprise at Mikumi (not well mapped in Stevenson & Fanshawe).
Yellow white-eye	<i>Zosterops senegalensis</i>	Utengule and Ngosi crater.
Malachite sunbird	<i>Nectarinia famosa</i>	Common at Kitulo.
Eastern double-collared sunbird	<i>Cinnyris mediocris</i>	Ngosi Crater.
Miombo double-collared sunbird	<i>Cinnyris manoensis</i>	Several at Kisolanza.
Beautiful sunbird	<i>Cinnyris pulchellus</i>	One at Mikumi.
Variable sunbird	<i>Cinnyris venustus</i>	Kisolanza and Utengule.
Amethyst sunbird	<i>Chalcomitra amethystina</i>	One for Martin in the garden at Dar.
Scarlet-chested sunbird	<i>Chalcomitra senegalensis</i>	Dar, Mikumi and Utengule.
Collared sunbird	<i>Hedydipna collaris</i>	Widespread.
Common fiscal	<i>Lanius collaris</i>	A few en route to Ngosi Crater.
Long-tailed fiscal	<i>Lanius cabanisi</i>	Common at Mikumi.
Tropical boubou	<i>Laniarius aethiopicus</i>	Widespread, best views at Utengule.
Black-backed puffback	<i>Dryoscopus cubla</i>	Widespread, best views at Utengule.
Brown-crowned tchagra	<i>Tchagra australis</i>	Utengule.
White-crested helmetshrike	<i>Prionops plumatus</i>	A gang above Utengule.
Retz's helmetshrike	<i>Prionops retzii</i>	Small group in the Hondo Hondo clearing one day (Udzungwa).
Fork-tailed drongo	<i>Dicrurus adsimilis</i>	Two en route to the Kilombero River.
Square-tailed drongo	<i>Dicrurus ludwigi</i>	Five or six in a mixed-species flock on Sanje Falls trail (Udzungwa). A large flock above Utengule.
House crow	<i>Corvus splendens</i>	This recently arrived species is the scourge of the coast, less common inland.
Pied crow	<i>Corvus alba</i>	Mostly inland, where found in small numbers throughout.
White-naped raven	<i>Corvus albicollis</i>	Several on the wooded slopes en route to Kisolanza. Small numbers daily at Kitulo and one near Mbeya.
African golden oriole	<i>Oriolus auratus</i>	A few above Utengule.
African black-headed oriole	<i>Oriolus larvatus</i>	One above Utengule.
Yellow-billed oxpecker	<i>Buphagus africanus</i>	Mikumi (common).
Wattled starling	<i>Creatophora cinerea</i>	One at Mikumi.
Greater blue-eared starling	<i>Lamprotornis chalybeus</i>	Widespread, mostly seen whilst travelling.
Southern blue-eared starling	<i>Lamprotornis elizabeth</i>	A few at Udzungwa.
Violet-backed starling	<i>Cinnyricinclus leucogaster</i>	An immature at Isimila. A few above Utengule.
Superb starling	<i>Lamprotornis superbus</i>	A few at Mikumi.
Ashy starling	<i>Spreo unicolor</i>	Small numbers at Baobab Valley.
Red-winged starling	<i>Onychognathus morio</i>	Dave and Gill had at least one at Utengule.
House sparrow	<i>Passer domesticus</i>	Widespread.
Grey-headed sparrow	<i>Passer griseus</i>	Widespread.

Red-billed buffalo-weaver	<i>Bubalornis niger</i>	One at Mikumi.
White-browed sparrow-weaver	<i>Plocepasser mahali</i>	A few daily at Mikumi.
Black-headed weaver	<i>Ploceus cucullatus</i>	Utengule.
Baglafaecht weaver	<i>Ploceus baglafaecht</i>	Utengule and Kitulo.
Lesser masked weaver	<i>Ploceus intermedius</i>	Mikumi and Udzungwa.
Kilombero weaver	<i>Ploceus burnieri</i>	Small numbers in the small wetland area in the cane-fields near Hondo Hondo (Udzungwa). A few above Utengule on the first day there.
Holub's golden weaver	<i>Ploceus xanthops</i>	A few en route to Baobab Valley.
African golden weaver	<i>Ploceus subaureus</i>	One on the Sanje Falls trail (Udzungwa).
*Dark-backed weaver	<i>Ploceus bicolor</i>	A few at Kisolanza and Utengule.
Red-collared widowbird	<i>Euplectes ardens</i>	Mikumi and common in wet grassland around Hondo Hondo (Udzungwa).
Fan-tailed widowbird	<i>Euplectes axillaris</i>	A single splendid male bird at Sao Hill Marsh this year. Also many males in full breeding plumage and displaying at Kitulo. A few seen whilst driving.
Montane marsh widowbird	<i>Euplectes psammocromius</i>	A few along the Kilombero and at Udzungwa.
Yellow bishop	<i>Euplectes capensis</i>	Widespread at lowland sites. Stunning bird.
Black-winged bishop	<i>Euplectes hordaceus</i>	Pairs at Isimila and Kisolanza.
Zanzibar red bishop	<i>Euplectes nigroventris</i>	Mikumi, Isimila stone age site and Kisolanza.
Green-winged pytilia	<i>Pytilia melba</i>	Only seen on the hotel garden in Dar.
Red-cheeked cordon-bleu	<i>Uraeginthus bengalus</i>	
Blue-capped cordon-bleu	<i>Uraeginthus cyanocephalus</i>	
Red-billed firefinch	<i>Lagonosticta senegala</i>	Scattered records.
Yellow-bellied waxbill	<i>Estrilda quartinia</i>	One on the Kilombero. Several at Kitulo NP.
Common waxbill	<i>Estrilda astrild</i>	Small numbers in the Sanje area and at Kisolanza. Common at Kitulo NP.
Bronze mannikin	<i>Lonchura cucullata</i>	Widespread.
Pin-tailed whydah	<i>Vidua macroura</i>	Small numbers throughout.
Yellow-fronted canary	<i>Serinus mozambicus</i>	Scattered records.
Yellow-crowned canary	<i>Serinus canicollis</i>	Kitulo. This race, <i>flavivertex</i> . is split by Clements.
East African citril	<i>Serinus hypostictus</i>	Small numbers at Kitulo NP and Utengule.
Yellow-browed seedeater	<i>Serinus whytii</i>	One at Kitulo.
Parasitic weaver	<i>Anomalospiza imberbis</i>	One immature being fed by siffling cisticolas at Kisolanza.
Cinnamon-breasted rock bunting	<i>Emberiza tahapisi</i>	Several at Isimila stone age site.
Cabanis' bunting	<i>Emberiza cabanisi</i>	One at Kisolanza.

Odonata recorded in Tanzania between 14th and 28th January

Glistening demoiselle	<i>Phaon iridipennis</i>	Udzungwa and Baobab Valley.
Tanzania jewel	<i>Platycypha auripes</i>	Abundant in habitat at Udzungwa NP.
Dancing jewel	<i>Platycypha caligata</i>	On small rocky streams at Udzungwa.
spreadwings	<i>Lestes spp.</i>	Unidentified <i>Lestes</i> at Kisolanza and the entrance wetland at Ngosi Crater (two species involved).
Common threadtail	<i>Elattonaura glauca</i>	Single male at Kisolanza on the outflow stream of the dam.
Riverjack	<i>Mesocnemis singularis</i>	Common along the Kilombero River. A few on the Ruaha in Baobab Valley.
Slender bluet	<i>Africallagma elongatum</i>	Present at Sao Hill Marsh and the entrance wetland at Ngosi Crater.
Common orange	<i>Ceriagrion glabrum</i>	Mikumi and Sao Hill marsh.
Common bluetail	<i>Ischnura senegalensis</i>	Mikumi and Kisolanza.
Painted sprite	<i>Pseudagrion (A) hageni</i>	One male on the outflow at the Kisolanza dam.
Kersten's sprite	<i>Pseudagrion (A) kersteni</i>	Common at Udzungwa.
Salisbury sprite	<i>Pseudagrion (A) salisburyense</i>	Kisolanza.
Powder sprite	<i>Pseudagrion (A) spernatum</i>	A few at Kitulo NP.
Acacia sprite	<i>Pseudagrion (B) acaciae</i>	Recorded on the Kilombero and at Baobab Valley on the Ruaha.
Blue-green sprite	<i>Pseudagrion (B) glaucescens</i>	Recorded at Mikumi and Kilombero.
Cherry-eyed sprite	<i>Pseudagrion (B) sublacteum</i>	One on the Sonjo trail (Udzungwa).
Vagrant emperor	<i>Anax ephippiger</i>	A few flying in the clearing at Hondo Hondo and over neighbouring farmland. Also a few over the Ngosi Crater entrance wetland.
Emperor	<i>Anax imperator</i>	One in the Sao Hill wetlands.
Black emperor	<i>Anax tristis</i>	Our only individual was cruising over a small rain-filled roadside pool inside Mikumi after rain. Spectacular.
[Riley's hawkler]	<i>Aeshna rileyi</i>	Probably this species seen in flight on a couple of occasions at Kitulo. Sometimes included in the genus <i>Pinheyschna</i> .
Common tiger	<i>Ictinogomphus ferox</i>	Seen in good numbers from the canoe on the Kilombero River.
Eastern horntail	<i>Nepogomphoides stuhilmani</i>	One sight record on the Sanje Mangabey trail at Udzungwa. Frustrating as this species is rarely photographed but is very shy.
Rock hooktail	<i>Paragomphus cognatus</i>	Sonjo Trail (Udzungwa).
Slender pintail	<i>Acisoma variegatum</i>	At least one on the Kilombero River.
Red groundling	<i>Brachythemis lacustris</i>	Frequently encountered on the canoe ride on the Kilombero.
Banded groundling	<i>Brachythemis leucosticta</i>	Common around the hippo pools at Mikumi.
Horned rockdweller	<i>Bradinopyga cornuta</i>	A few at the first falls on the Sanje Falls trail (Udzungwa).
Inspector	<i>Chalcostephia flavifrons</i>	One on the Sanje Falls trail (Udzungwa).
Broad scarlet	<i>Crocothemis erythraea</i>	Only recorded in very small numbers this year.
Black percher	<i>Diplacodes lefebvrii</i>	Mikumi.
Luminous percher	<i>Diplacodes luminans</i>	Just one at the Ngosi Crater entrance wetland.
Dwarf percher	<i>Diplacodes pumila</i>	Sao Hill marsh.
Ruddy jungleskimmer	<i>Hadrothemis scabrifrons</i>	This superb robust libellulid on the Sanje Falls trail (Udzungwa).

Black-tailed skimmer	<i>Nesiothemis farinosa</i>	Hondo Hondo and Baobab Valley.
Slender bottletail	<i>Olpogastra lugubris</i>	One in the Kilombero swamp remnant. Scattered records thereafter.
Little skimmer	<i>Orthetrum abboti</i>	One on the Kilombero.
Two-striped skimmer	<i>Orthetrum caffrum</i>	Kitulo.
Julia skimmer	<i>Orthetrum julia</i>	Widespread.
Long skimmer	<i>Orthetrum trinacria</i>	One on the Kilombero.
Portia widow	<i>Palpopleura portia</i>	
Globe skimmer	<i>Pantala flavescens</i>	Widespread and very common on occasion.
Red-veined darter	<i>Sympetrum fonscolombii</i>	Good numbers at the Ngosi Crater entrance wetland this year.
Coral-tailed cloudwing	<i>Tholymis tillarga</i>	First seen at the hippo pool in Mikumi at dusk. A few thereafter.
Keyhole glider	<i>Tramea basilaris</i>	Widespread in the highlands.
Ferruginous glider	<i>Tramea limbata</i>	First seen at Dar, a few thereafter.
Violet dropwing	<i>Trithemis annulata</i>	Quite a few in the Kilombero swamp remnant in the cane fields this year.
Red-veined dropwing	<i>Trithemis arteriosa</i>	Frequently encountered around the Udzungwa area.
Dorsal dropwing	<i>Trithemis dorsalis</i>	One at the Ngosi Crater entrance wetland..
Blue basker	<i>Urothemis edwardsi</i>	Kilombero River.
Blue cascader	<i>Zygonyx natalensis</i>	A few at the first falls on the Sanje Falls trail (Udzungwa).
Ringed cascader	<i>Zygonyx torridus</i>	A good showing when we arrived at the Sonjo River (Udzungwa) in the mid-afternoon.

Reptiles and amphibians recorded in Tanzania between 14th and 28th January

Order and nomenclature follow Spawls *et al.* (2006) *Pocket guide to the reptiles & amphibians of East Africa*.

Reptiles

Bell's hinged tortoise	<i>Kinixys belliana</i>	Several on the roads.
Tropical house gecko	<i>Hemidactylus mabouia</i>	Widespread.
Yellow-headed dwarf gecko	<i>Lygodactylus luteopicturatus</i>	Seen around the hotel at Dar.
Variable skink	<i>Mabuya varia</i>	Widespread.
Coral rag skink	<i>Cryptoblepharus boutonii</i>	A few at Bongoyo Island.
Red-headed rock agama	<i>Agama agama</i>	Highlands.
Werner's three-horned chameleon	<i>Chamaeleo werneri</i>	One on the Sanje Falls trail (Udzungwa).
Nile monitor	<i>Varanus niloticus</i>	Mikumi and the Kilombero River.
Nile crocodile	<i>Crocodylus niloticus</i>	Mikumi

Amphibians

Guttural toad	<i>Bufo gutturalis</i>	Hondo Hondo (Udzungwa).
Mascarene rocket frog	<i>Ptychadena mascariensis</i>	In the agricultural areas and lawn at Hondo Hondo (Udzungwa).

Butterflies recorded in Tanzania between 14th and 28th January

Papilionidae

Large striped swordtail	<i>Graphium antheus</i>	Udzungwa.
Cream striped swordtail	<i>Graphium porthaon</i>	Mikumi and Udzungwa.
	<i>Papilio bromius</i>	Ngosi Crater.
Citrus swallowtail	<i>Papilio demadocus</i>	Widespread.
White-banded swallowtail	<i>Papilio echerioides</i>	Ngosi Crater.
Narrow green banded swallowtail	<i>Papilio nireus</i>	Udzungwa.

Pieridae

African emigrant	<i>Catopsila florella</i>	Scattered records.
African clouded yellow	<i>Colias electo</i>	a few at Kitulo.
Angled grass yellow	<i>Eurema desjardinisi</i>	Widespread.
Common grass yellow	<i>Eurema hecabe</i>	Kilombero.
African caper	<i>Belenois creona</i>	Baobab Valley and Isimila.
African veined white	<i>Belenois gidica</i>	Isimila.
Small salmon arab	<i>Colotis amata</i>	Baobab Valley.
Scarlet tip	<i>Colotis danae</i>	Baobab Valley.
Small orangetip	<i>Colotis evagore</i>	Baobab Valley.
an orangetip	<i>Colotis pallene</i>	Sanje Falls (Udzungwa).
Queen purpletip	<i>Colotis regina</i>	Sanje Falls (Udzungwa).
an orangetip	<i>Colotis vestis</i>	Isimila.
Cambridge vagrant	<i>Nepheronia thalassina</i>	Widespread.

Danaidae

Chief	<i>Amauris echeria</i>	Ngosi Crater.
Plain tiger	<i>Danaus chrysippus</i>	Widespread.
	<i>Danaus formosa</i>	Mikumi.
	<i>Tirumala petiverana</i>	Mikumi.

Satyridae

Common bush brown	<i>Bicyclus campinus</i>	Udzungwa and Ngosi Crater.
	<i>Bicyclus safitza</i>	widespread.
	<i>Neocoenyra heckmanni</i>	Ngosi Crater.
	<i>Neocoenyra petersi</i>	Common at Kitulo, where endemic.
	<i>Physcaeneura leda</i>	Mikumi.
Banded evening brown	<i>Gnophodes betsimensis</i>	Udzungwa.
Evening brown	<i>Melanitis leda</i>	Udzungwa.
African ringlet	<i>Ypthimima asterope</i>	Udzungwa.

Libytheidae

African snout	<i>Libythea labdaca</i>	Mikumi and Udzungwa.
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Nymphalidae

Scalloped sailor	<i>Neptidopsis ophione</i>	Sanje Falls trail (Udzungwa).
	<i>Charaxes lasti</i>	Udzungwa.
Mountain pearl charaxes	<i>Charaxes acuminatus</i>	Ngosi Crater (on scat).
Dark queen	<i>Euxanthe tiberius</i>	Udzungwa – a trip highlight.
Leopard	<i>Phalanta phalanta</i>	widespread in lowlands.
Gold-banded forester	<i>Euphaedra neophron</i>	Udzungwa.
Guineafowl	<i>Hamanumida daedalus</i>	Mikumi.
Common barred sailor	<i>Neptis laeta</i>	Kilombero swamp remnant.
	<i>Pseudacraea dolomena</i>	Sanje Falls trail (Udzungwa).

False chief	<i>Pseudacraea lucretia</i>	Sanje Falls trail (Udzungwa).
Golden piper	<i>Eurytela dryope</i>	Sanje Falls trail (Udzungwa).
Long-tailed admiral	<i>Antanartia schaeneia</i>	Ngosi Crater.
Spotted joker	<i>Byblia ilithyia</i>	Mikumi and Udzungwa.
	<i>Hypolimnias misippus</i>	widespread.
	<i>Hypolimnias anthedon</i>	Udzungwa.
Darker commodore	<i>Junonia antilope</i>	Mikumi.
Yellow pansy	<i>Junonia hierta</i>	Mikumi.
Natal pansy	<i>Junonia natalica</i>	Mikumi.
Blue pansy	<i>Junonia orithya</i>	scattered records.
Dark blue pansy	<i>Junonia oenone</i>	Mikumi, Udzungwa.
Little commodore	<i>Junonia sophia</i>	Lunji.
Soldier pansy	<i>Junonia terea</i>	Mikumi, Udzungwa.
Garden inspector	<i>Precis archesia</i>	Mikumi.
Gaudy commodore	<i>Precis octavia</i>	Ngosi Crater.
Forest commodore	<i>Precis rauana</i>	Ngosi Crater.
Blue mother-of-pearl	<i>Protogoniomorpha temora</i>	Udzungwa.
Forest mother-of-pearl	<i>Protogoniomorpha parhassus</i>	Udzungwa.
Painted lady	<i>Vanessa cardui</i>	Kitulo and Ngosi Crater.
Acraeidae		
	<i>Acraea anemosa</i>	Sao Hill.
Small orange acraea	<i>Acraea eponina</i>	Kilombero and Kisolanza.
Natal acraea	<i>Acraea natalica</i>	Mikumi and Kilombero.
African queen	<i>Issoria smaragdifera</i>	Kitulo.
Lycaenidae		
	<i>Baliochila hildegarda</i>	Mikumi.
	<i>Pentila pauli</i>	Vuma Hills (Mikumi) and Sanje Falls trail (Udzungwa).
Small copper	<i>Lycaena phlaeas</i>	Kitulo and Ngosi Crater.
Wooly legs	<i>Lachnocnema bibulus</i>	Vuma Hills (Mikumi).
Clover blue	<i>Actizaera stellata</i>	Kitulo.
Leaden ciliate blue	<i>Anthene amarah</i>	Mikumi.
Common ciliate blue	<i>Anthene definita</i>	Ngosi Crater.
Last's ciliate blue	<i>Anthene lasti</i>	Vuma Hills (Mikumi).
Red spot ciliate blue	<i>Anthene rubrimaculata</i>	Sanje Falls trail (Udzungwa).
African babul blue	<i>Azanus jesous</i>	Isimila.
Water geranium blue	<i>Cacyreus palemon</i>	Kitulo.
Meadow blue	<i>Cupidopsis cissus</i>	Kisolanza and Sao Hill marsh.
White-tipped blue	<i>Eicochrysops hippocrates</i>	Baobab Valley.
Central mountain blue	<i>Harpendyreus marungensis</i>	Kitulo.
Zebra blue spp.	<i>Leptotes</i> spp.	widespread and difficult to identify.
	<i>Tuxentius ertli</i>	Ngosi Crater.
	<i>Uranothauma delatorum</i>	Sanje Falls rail (Udzungwa).
	<i>Zizeeria knysna</i>	Widespread.
	<i>Zizula hylax</i>	Kisolanza.
Azure hairstreak	<i>Hemiolaus coeculus</i>	Baobab Valley.
Hesperioidea		
Common hottentot	<i>Gegenes niso</i>	Kitulo.
a sylph	<i>Metisella midas</i>	Ngosi Crater.
Snow-horned skipper	<i>Chondrolepis niveicornis</i>	Ngosi Crater.

White-tailed hopper	<i>Platylesches galesa</i>	Sanje Falls trail (Udzungwa)
Spotted sylph	<i>Astictopterus stellata</i>	Mikumi.
	<i>Eretis melania</i>	Sonjo trail (Udzungwa) and Isimila.
Common sandman	<i>Spialia diomus</i>	Sao Hill marsh.

Plant List Tanzania January 2019

Peter Steiger, Rodersdorf, Switzerland,
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- African Plants - a Photo guide. www.africanplants.senckenberg.de Many helpful fotos can be seen, using the seek machine in order of plant families and taxa. You can also add or filter different regions of Africa.
- www.inaturalist.com Under „observations“ you can log in to a certain place, e.g. Kitulo NP and looking for a certain plant family, e.g. Orchidaceae or genus Satyrium and find out which species have already been observed in the area. It's functioning still weakly for Africa in general if you have an idea what you are looking for, more difficult if you have to scroll through all Plants for one place in search of a certain species.

Abbreviations

t	tree
s	shrub
v	vine
h	herbaceous/perennial
o	orchid
f	fern

Day 1

A Hotel Mediterraneo, Daressalaam Garden, 5 m

Delonix regia	t	fl orange red, lv pinn, Flamboyant, Madagascar	Fabaceae
Pandanus kirkii	t	lv lanceolate crowded, stilt roots	Pandanaceae

B Bongoyo Island, Daressalam tropical coral reef thicket and mangrove 0 - 10 m

Adansonia digitata	t	Baobab, v 5p digitate sitting, bark light grey	Bombacaceae
Bombax rhodognaphalon	t	lv 5p digitate petioled, bark light grey	Bombacaceae
Commiphora madagascariensis	t	lv crowded, stem grey w yellow brown flakes	Burseraceae
Rourea orientalis	t	fr red ovate berries, lv pinnate, lvl hanging	Conneraceae
Euphorbia ingens	t	candelabrous, succulent tree	Euphorbiaceae
Euphorbia tirucalli	t	twigs smooth green, succulent tree	Euphorbiaceae

Sonneratia alba	t	fl white, lv opp rd, ovate, fr large green ball	Lythraceae
Pandanus kirkii	t	lv lanceolate crowded, stilt roots	Pandanaceae
Sterculia africana	t	lv 3-3p shallowly lobate, fr large green 3-5	Sterculiaceae (Tiliaceae)
Vitex trifolia	t	fl blue violet, lv 3-5p digitate, many stemmed	Verbenaceae (Lamiaceae)
Cissus cactiformis	v	fl greenish, green stems quadr w tendrils no lv	Vitaceae
Scaevola plumieri	s	fl white w 5p lower lip, lv rd ovate succulent	Goodeniaceae
Turrea wakefieldii	s	fl lg petaled creme turning yellow, lv ovate	Meliaceae
Pseuderanthemum hildebrandtii	h	fl orange, lv opposite, often gregarious	Acanthaceae
Scadoxus multiflorus	h	fl red fireballs, fr red berries, lv large fleshy	Amaryllidaceae
Amorphophallus stuhlmannii	h	lv divided	Araceae
Stylochidon natalensis	h	lv triangular Arum like	Araceae
Cycas thouarsii	f	young lv only, glossy simple pinnate	Cycadaceae

Day 2

A Breakfast stop at Masugulu, Pwani

Tropical dry forest

200 m

Acacia nilotica	t	fl yellow globose, spine in pairs, lv pinnate	Fabaceae
Senna spectabilis	t	fl yellow racemose, lv pinnate, South America	Fabaceae
Clerodendron cephalanthum	t	fl white, lv ovate, dominant secondary growth	Verbenaceae (Lamiaceae)

B Stop northeast of Morogoro, Morogoro

Dry tropical forest/Sisal plantation,

500 m

Agave sisalana	s	lv blue green lanceolate, fl yellow, México	Agavaceae
Sesamum angolense	h	fl lilac tubed, lv linear	Pedaliaceae
Agatisanthemum bojeri	h	fl white, Achillea like, lv linear	Rubiaceae

Day 2 and 3

C Mikumi National Park, Morogoro

tropical Baobab Savanna (plain) and dry Miombo Forest (hill around Vuma Lodge),

500 - 650 m

Borassus aethiopum	t	palm with fan like lv	Areaceae
Kigelia africana	t	fl dark brown, fr sausage, lv pinnate	Bignoniaceae
Stereospermum kunthianum	t	lv pinnate, fr pencil like to 60 cm long	Bignoniaceae
Adansonia digitata	t	Baobab, v 5p digitate sitting, bark light grey	Bombacaceae
Terminalia sambesiaca	t	fl white in terminal spikes, lv crowded ovate	Combretaceae
Euphorbia ingens	t	candelabrous, succulent tree	Euphorbiaceae
Acacia xanthophloea	t	bark yellow, spines lg erect, lv pinnate	Fabaceae
Albizia glaberrima	t	fl white stamens, lv few pinnate	Fabaceae
Dalbergia boehmii	t	lv pinnate, lv rd ovate, fr w 1-3 seeds	Fabaceae
Entandrophragma delevoyi	t	lv odd/even pinnate, lv acute	Meliaceae
Gardenia volkensii	t	fl white large up to 12 petals, scented	Rubiaceae
Harrisonia abyssinica	t	lv impair pinnate w winged rachis, lv toothed	Simaroubaceae
Vernonia colorata	s	fl pinkish in large corymb, lv opposite	Asteraceae

Oncoba spinosa (Salicaceae)	s	fl white large w yell stamen, scented, lv serrate	Flacourtiaceae
Hoslundia opposita	s	fl white, fr orange, lv aromatic	Lamiaceae
Catunaregam swynnertonii	s	fl creme 5p, lv lg ovate	Rubiaceae
Catunaregam taylorii	s	fl white to yellow, spines, lv ovate	Rubiaceae
Solanum incanum	s	fl lilac, lv lanceolate, white felty below	Solanaceae
Coccinia microphylla	v	fl orange star, lv 3p	Cucurbitaceae
Jasminum fluminense	v	fl white star 5-8p, lv opposite ovate	Oleaceae
Asystasia gangetica	h	fl white with lilac marking	Acanthaceae
Ruellia prostrata	h	fl lilac nearly regular 5p, lv hairy opp	Acanthaceae
Pandiaka involucrata	h	fl white globules, lv opp ovate	Amaranthaceae
Amorphophallus stuhlmannii	h	fr spike, green	Araceae
Gutenbergia eylesii	h	fl violett magenta in small heads, lv lanceolate	Asteraceae
Heliotropium undulatifolium	h	fl white in spiraled spike, lv Urtica like glab	Boraginaceae
Commelina benghalensis	h	fl blue 2p, lv lanceolate hairy	Commelinaceae
Kyllinga erecta	h	fl white globular w lg bracts, pond	Cyperaceae
Monsonia longipes	h	fl white, lv dentate	Geraniaceae
Leucas deflexa	h	fl white in whorls, lv Urtica like glabrous	Lamiaceae
Orthosiphon rubicundus	h	fl white in lilac calyx, lv teathed rd ovate	Lamiaceae
Ludwigia octovalvis	h	fl yellow 4-5p, lv lanceolate, on water	Onagraceae
Striga asiatica	h	fl orange to red 5p, lv linear	Orobanchaceae
Siphonochilus aethiopicus	h	fl lilac with yellow spot, scented, lv lanceolate	Zingiberaceae

Day 3

Ruhembe (south of Mikumi town), Morogoro

Moist tropical lowland forest,

400 m

Kigelia africana	t	fl dark brown, fr sausage, lv pinnate	Bignoniaceae
Markhamia obtusifolia	t	fl yellow scented, lv pinnate	Bignoniaceae
Ehretia amoena	t	fl white corymb, petals curling back, lv ovate	Boraginaceae
Terminalia sambesiaca	t	fl white in terminal spikes, lv crowded ovate	Combretaceae
Acacia tortilis	t	fl white globular, lv pinnate, thorn short and lg	Fabaceae
Bauhinia petersiana	t	fl white w lg red stamens scented, lv 2p	Fabaceae
Dichrostachys cinerea	t	fl drooping spike pink and yellow, lv pinnate	Fabaceae
Senna siamea	t	fl yellow in corymb, lv pinnate, South-East Asia	Fabaceae
Ficus exasperata	t	bark yellow-brown, lv ovate, serrate, riverine	Moraceae
Saba comorensis	v	fl white in umbel, lv ovate, fr edible yellow	Apocyanaceae
Actiniopteris radiata	f	lv radiate linear like a micro palm, on acid rock	Polypodiaceae

Day 4

Udzungwa NP, Mangula, Morogoro

A Mountain side west of headquarters south of Mangula,

lowland and lower montane rain forest, 370 - 850 m

Dracaena mannii	t	lv lanceolate	Agavaceae
Sorindeia madagascariensis	t	lv pinnate, lvl small ovate	Anacardiaceae
Lettowianthus stellatus	t	lv large, aromatic, ovate, endangered species	Annonaceae
Carvalhoa macrophylla	t	fl pale yellow bell long styled, lv lg ovate	Apocynaceae
Diplorhynchus condylocarpon	t	bark rough light grey, lv opp ovate long styled	Apocynaceae
Saba comorensis	v	fl white in umbel, lv ovate, fr edible yellow	Apocynaceae
Tabernaemontana pachysiphon	t	fl white large scented, lv opp parallel nerved	Apocynaceae
Voacanga africana	t	fl white wheel like, lv ovate, nerves parallel	Apocynaceae

Phoenix reclinata	t	palm with pinnate lv	Areaceae
Markhamia obtusifolia	t	lv pinnate	Bignoniaceae
Bombax rhodognaphalon	t	lv 5p digitate petiol, bark light grey, emergent	Bombacaceae
Combretum zeyheri	t	lv round ovate, fr brown 4winged	Combretaceae
Pteleopsis myrtifolia	t	fl white, lv ovate opposite	Combretaceae
Terminalia sambesiaca	t	fl white in terminal spikes, lv crowded ovate	Combretaceae
Bridelia micrantha	t	fl green small star, lv ovate large	Euphorbiaceae
Euphorbia ingens	t	candelabrous, succulent tree, on rock slope	Euphorbiaceae
Ricinodendron heudelotii	t	lv 3-7p digitate	Euphorbiaceae
Acacia polyacantha	t	fl white cylindric, spines curved small, lv pin	Fabaceae
Dalbergia melanoxylon	t	lv few pinnate, lvi round ovate	Fabaceae
Parkia filicoidea	t	stem resonating, lv pinnate, fl reddish balls	Fabaceae
Anthocleista grandiflora	t	lv very long crowded at top, cabbage tree	Gentianaceae
Antiaris toxicaria	t	lv ovate entire, bark grey smooth, emergent	Moraceae
Ficus sur	t	lv ovate, fl and fr also at stem base	Moraceae
Ficus exasperata	t	bark grey, many suckers at stem base	Moraceae
Ficus sycomorus	t	lv ovate dentate alder like	Moraceae
Ficus thonningii	t	lv long ovate entire	Moraceae
Milicia excelsa	t	lv ov big, parallel nerved, bark grey, emergent	Moraceae
Treculia africana	t	lv long ovate, nerves parallel, fl /fr round ball	Moraceae
Parinari excelsa	t	lv lg ovate alternate olive green above	Rosaceae
Leptacina platyphylla	t	fl white star, lv opp lg ovate	Rubiaceae
Deinbollia borbonica	t	lv pair pinnate, lvi ovate	Sapindaceae
Harrisonia abyssinica	t	lv impair pinnate w winged rachis, lvi teathed	Simaroubaceae
Sterculia appendiculata	t	stem pale yellow, lv 3-7 lobed, emergent	Sterculiaceae (Malvaceae)
Sterculia quinqueloba	t	stem silvery, lv acute tipped 5lobed	Sterculiaceae (Malvaceae)
Trema orientalis	t	fl/fr greenish crowded, lv lg ovate pale below	Ulmaceae
Picralima nitida	s	fl creme wheel w yellow center, lv lg ovate	Apocynaceae
Hoslundia opposita	s	fl white, fr orange, lv aromatic	Lamiaceae
Piper capense	s	fl white spike, lv ovate long tipped	Piperaceae
Catunaregnam spinosa	s	stright thorns, lv clustered on twig	Rubiaceae
Psychotria tanganykensis	s	fl white umbel, lv lg ovate	Rubiaceae
Grewia platyclada	s	fl yellow, lv round ovate	Tiliaceae (Malvaceae)
Entada rheedii	v	huge brown seeds and pods, lv pinnate	Fabaceae
Cissampelos pareira	v	fl small brownish, lv round	Menispermaceae
Anchomanes abbreviatus	h	lv semicircularly incurved at top	Araceae
Impatiens walleriana	h	fl magenta, near waterfall	Balsaminaceae
Begonia sp.	h	fl pink, lv white dotted, rock close to waterfall	Begoniaceae
Aneilema beniniense	h	fl white in globose head, lv lanceolate	Commelinaceae
Commelina benghalensis	h	fl blue 2p, lv lanceolate hairy	Commelinaceae
Peperomia tetraphylla	h	lv small round, epiphyte	Piperaceae
Adiantum poiretii	f	maiden-hair fern	Pteridaceae
Pentas parvifolia	h	fl red in umbel, lv opposite, near waterfall	Rubiaceae
Stachytarpheta jamaicensis	h	fl blue in small spike, lv teathed, America	Verbenaceae

B Sonjo waterfalls **lowland and lower montane rain forest,** **370 - 600 m**

only species additional to the Mangula hillside mentioned above:

Bombax rhodognaphalon	t	fr w fluffy brown wool, lv 5p digitate	Bombacaceae
Euclea divinorum	t	lv undulate, bark grey rough	Ebenaceae
Albizia gummifera	t	lv double pinnate	Fabaceae
Brachystegia spiciformis	t	lv few pinnate, green Miombo	Fabaceae
Englerodendron usambarensis	t	many stems, bark grey, lv pair pinn, fl white	Fabaceae

Trilepisium madagascariensis	t	lv ovate like Ficus benjamini	Moraceae
Syzygium guineense	t	lv ovate aromatic, fr lilac	Myrtaceae
Ochna holstii	t	fr black in red calyx, lv serrate lg ovate	Ochnaceae
Vitex doniana	t	fl white, lv 5p digitate petioled	Verbenaceae (Lamiaceae)
Abrus schimperi	s	fl pink lilac in spike, lv paripinnate	Fabaceae
Costus spectabilis	h	fl yellow, lv 4 fleshy in ground rosette	Costaceae
Selaginella kraussiana	f	lv scaly	Selaginellaceae

Day 5

Kilombero River, south of Ifakara, Morogoro, flood plains 260 m

Mimosa pigra	s	fl pink lilac globose, lv pinnate	Fabaceae
Pistia stratiotes	h	lv undulate in swimming rosette	Araceae
Heliotropium indicum	h	fl white in spirals, lv ovate rugose	Boraginaceae
Senna occidentalis	h	fl yellow, lv pinnate lvs acute ovate	Fabaceae
Nymphaea lotus	h	fl white, lv margin regularly toothed	Nymphaeaceae
Ludwigia octovalvis	h	fl yellow 4-5p, lv lanceolate, on water	Onagraceae

Day 6

Udzungwa NP, Sanje, Morogoro Sanje waterfalls

lowland and lower montane rain forest, 320 - 850 m

only species additional to the Mangula hillside mentioned at Day 4:

Xylopia parviflora	t	fl greenish star w lg curved petals	Annonaceae
Cyathea thomsonii	t	tree fern, close to first fall	Cyatheaceae
Diospyros squarrosa	t	lv long ovate, deciduous	Ebenaceae
Craterispermum schweinfurthii	t	fl white star, lv net veined	Rubiaceae
Didymosalpix norae	t	fl white, long hanging bell, lv lanc	Rubiaceae
Searsia longipes	s	fl whitish racem, lv 3p rd ov, first fall	Anacardiaceae
Dissotis canescens	s	fl pink 5p, lv lanceolate 3-5 n, first fall	Melastomataceae
Tristemma mauritianum	s	fl pink 5p, lv 5n ovate hairy, first fall	Melastomataceae
Dorstenia hildebrandtii	s	fl brown disk w irr appendixes, nr 2. fall	Moraceae
Rhoicissus tridentata	v	lv 3p dentate	Vitaceae
Crassocephalum uvens	h	fl orange, lv serrate, second fall	Asteraceae
Impatiens walleriana	h	fl magenta, near the falls	Balsaminaceae
Impatiens sp.	h	fl lilac pink, lv ovate, second fall	Balsaminaceae
Impatiens sp.	h	fl violet blue, third fall	Balsaminaceae
Saintpaulia ionantha	h	fl violet, lv ovate, rocks along river	Gesneriaceae
Geophila obvallata	h	fl white, lv rd ov, ground cover	Rubiaceae
Laportea interrupta	h	fl greenish lateral, lv 3n serrate, 3.fall	Urticaceae
Afromomum amaniense	h	fl lilac, lv lanc in spirals, first /third fall	Zingiberaceae
Siphonochilus kirkii	h	fl lilac with yellow spot, scented, lv ov	Zingiberaceae

Day 7

A Crocodile Camp, Ruaha Valley, Morogoro

Dry Baobab forest,

550 - 650 m

<i>Adansonia digitata</i>	t	Baobab, v 5p digitate sitting, bark light grey	Bombacaceae
<i>Commiphora africana</i>	t	bark grey-green, lv 3p irre toothed	Burseraceae
<i>Commiphora caerulea</i>	t	bark blue-green, lv1-5 pinnate, serrate	Burseraceae
<i>Commiphora glandulosa</i>	t	bark yellow-green, lv clustered, serrate	Burseraceae
<i>Commiphora schimperi</i>	t	lv 3p diamond shaped, teathed	Burseraceae
<i>Terminalia sambesiaca</i>	t	fl white in terminal spikes, lv crowded ovate	Combretaceae
<i>Acacia polyacantha</i>	t	fl white lg cylindrical, lv pinnate	Fabaceae
<i>Acacia seyal</i>	t	crown flat, fl yellow glob, lv pinn, thorn lg	Fabaceae
<i>Acacia tortilis</i>	t	fl white globular, lv pinnate, thorn short and lg	Fabaceae
<i>Tamarindus indica</i>	t	fl white w red lines, lv pinnate	Fabaceae
<i>Ximenia americana</i>	t	thorns lg, fr red ovate, lv ovate, native!	Olacaceae
<i>Adenium obesum</i>	s	stem succulent swollen at base, lv lanceolate	Apocyanaceae
<i>Maerua angolensis</i>	s	fl white stamens only, lv ovate	Capparidaceae
<i>Crotalaria cleomifolia</i>	s	fl yellow, lv 3p bluegreen	Fabaceae
<i>Hibiscus lunarifolius</i>	s	fl corn yellow w maroon base, lv lobed	Malvaceae
<i>Piper umbellatum</i>	s	lv round not acute	Piperaceae
<i>Solanum incanum</i>	s	fl lilac, lv lanceolate, white felty below	Solanaceae
<i>Grewia lepidopetala</i>	s	fl white, lv ovate serrate	Tiliaceae (Malvaceae)
<i>Grewia monticola</i>	s	fl yellow, lv ovate serrate, hazel like	Tiliaceae (Malvaceae)
<i>Ipomoea</i> sp.	v	fl pink, lv acute ovate	Convolvulaceae
<i>Coccinia trilobata</i>	v	fl orange star, lv 3p	Cucurbitaceae
<i>Cissus quadrangularis</i>	v	stem 4winged, lv simple serrate	Vitaceae
<i>Crabbea velutina</i>	h	fl white w yellow throat, lv spoon like in rosette	Acanthaceae
<i>Aerva lanata</i>	h	fl whitish racemose, lv lanceolate wolly	Amaranthaceae
<i>Heliotropium undulatifolium</i>	h	fl white in spiraled spike, lv Urtica like glab	Boraginaceae
<i>Heliotropium zeylanicum</i>	h	fl yellowish stars in spirals	Boraginaceae
<i>Cleome hirta</i>	h	fl lilac lg stamens, lv linear digitate	Capparidaceae
<i>Actiniopteris radiata</i>	f	lv radiate linear like a micro palm, on acid rock	Polypodiaceae

Day 8

A Isimila stone age site and Canyon, Iringa

Dry montane forest,

1600 - 1700 m

<i>Cordia africana</i>	t	fl white, lv round ovate	Boraginaceae
(Cordiaceae)			
<i>Euphorbia ingens</i>	t	candelabrous, succulent tree	Euphorbiaceae
<i>Acacia drepanolobium</i>	t	fl white globular, lv pinnate, lg thorns w galls	Fabaceae
<i>Brachystegia utilis</i>	t	lv pair pinnate, fr flat brown	Fabaceae
<i>Scolopia rhamniphylla</i>	t	lv teathed, ovate crowded at twig, long thorns	Flacourtiaceae
(Salicaceae)			
<i>Rothmannia engleriana</i>	t	fr large balls, lv opposite ovate	Rubiaceae
<i>Mimusops zeyheri</i>	t	fr orangered ovoid hanging, lv lanceolate-ovate	Sapotaceae
<i>Pouteria pseudoracemosa</i>	t	fl whitish sitting on twig, lv parallel nerved	Sapotaceae
<i>Carissa edulis</i>	s	fl white, red outside fragrant, fr red	Apocyanaceae
<i>Asparagus africanus</i>	s	lv cedar like needles, Fr orange red	Asparagaceae
<i>Vernonia bellinghamii</i>	s	fl star like in small umbel, lv ovate	Asteraceae
<i>Cephalocroton mollis</i>	s	fl pale yellow in terminal head, lv hairy	Euphorbiaceae

<i>Euphorbia stapfii</i>	s	spiny quadrangular upright succulent	Euphorbiaceae
<i>Aeschynomene abyssinica</i>	s	fl yellow, lv pinnate	Fabaceae
<i>Triaspis macropteron</i>	s	fl white fimbriate, calyx carmine, lv ovate	Malphiaceae
<i>Pavonia procumbens</i>	s	fl orange yellow, lv lobed	Malvaceae
<i>Ochna leptoclada</i>	s	fr black in red calyx, lv serrate bluish	Ochnaceae
<i>Protea welwitschii</i>	s	lv lanceolate, fr large	Protaceae
<i>Catunaregam spinosa</i>	s	stright thorns, lv clustered on twig	Rubiaceae
<i>Leptacina benguelensis</i>	s	fl white long tubed, subshrub mat forming	Rubiaceae
<i>Tricalysia niamniamensis</i>	s	fr red, lv opp ovate leathery	Rubiaceae
<i>Viscum schimperi</i>	s	fr red orange, lv scaly/absent, olive, epiphyte	Santalaceae
<i>Viscum tuberculatum</i>	s	fr orange, lv ovate, twig olive, epiphyte	Santalaceae
<i>Dodonaea viscosa</i>	s	fr pink 3winged, lv lanceolate	Sapindaceae
<i>Lantana trifolia</i>	s	fl white, lv in 2-3	Verbenaceae

Jasminum abyssinicum v fl white scented, lv pinnate Oleaceae

<i>Chlorophytum</i> sp	h	fl white in dense spike, lv in rosette	Anthericaceae
<i>Cyphia volubilis</i>	h	fl white with violet lines, lv linear	Campanulaceae
<i>Gloriosa superba</i>	h	fl red w yellow stamens	Colchicaceae
<i>Commelina africana</i>	h	fl yellow	Commelinaceae
<i>Cyanotis foecunda</i>	h	fl lilac small	Commelinaceae
<i>Savannosiphon euryphyllus</i>	h	fl white long tubed, night flowering	Iridaceae
<i>Tritonia laxiflora</i>	h	fl orange, lv linear	Iridaceae
<i>Sesamum alatum</i>	h	fl dark purple brown tubed, lv linear	Pedaliaceae
<i>Sesamum angolense</i>	h	fl lilac tubed, lv linear	Pedaliaceae
<i>Pentas bussei</i>	h	fl red crowded, lv opposite	Rubiaceae
<i>Cyphostemma princae</i>	h	fl white in upright umbel, lv serrate 3-5p	Vitaceae

Habenaria goetzeana o fl greenish, 2 petals thread like upwards Orchidaceae
Platycoryne ambigua o fl yellow, small Orchidaceae

B Kisolanza farm, Iringa Dry montane forest and wetland, 1720 - 1760 m

<i>Rauvolfia caffra</i>	t	lv lanceolate crowded at top, below pond	Apocyanaceae
<i>Brachylaena huillensis</i>	t	fr silvery, lv silver grey below	Asteraceae
<i>Commiphora edulis</i>	t	fr globose yellow to red, lv inpair pinnate	Burseraceae
<i>Parinari curatellifolia</i>	t	lv parallel nerved, fr large brown balls	Chrysobalanaceae
<i>Rourea orientalis</i>	t	fr red ovate berries, lv pinnate, lvi hanging	Conneraceae
<i>Croton sylvaticus</i>	t	fl whitish in spike, lv heart shaped	Euphorbiaceae
<i>Dichrostachys cinerea</i>	t	fl drooping spike pink and yellow, lv pinnate	Fabaceae
<i>Homalium longistylum</i>	t	fl white long spike, lv serrate	Flacourtiaceae
(Salicaceae)			
<i>Ficus sur</i>	t	lv ovate, fl and fr also at stem base	Moraceae
<i>Syzygium afromontanum</i>	t	fl white, fr purple-violett, lv ovate	Myrtaceae
<i>Protea angolensis</i>	t	lv ovate leathery bluish green, fr large	Protaceae
<i>Strychnos potatorum</i>	t	lv 3nerved with prominent texture, elliptic	Strychnaceae
<i>Asparagus africanus</i>	s	lv cedar like needles, Fr orange red	Asparagaceae
<i>Agelanthus pungu</i>	s	fl orange yellow swollen at base, epiphyte	Loranthaceae
<i>Dissotis canescens</i>	s	fl magenta, lv lanceolate 3 nerved, pond	Melastomataceae
<i>Gardenia ternifolia</i>	s	fl creme-white, heavily scented, fr dry pear	Rubiaceae
<i>Tricalysia niamniamensis</i>	s	fr red, lv opp ovate leathery	Rubiaceae
<i>Grewia stoltzii</i>	s	fl white large star, lv serrate ovate	Tiliaceae (Malvaceae)
<i>Triumfetta pilosa</i>	s	fl yellow star, lv serrate lg ovate, pond	Tiliaceae (Malvaceae)
<i>Lantana trifolia</i>	s	fl white, lv in 2-3	Verbenaceae
<i>Gongronema angolense</i>	v	fl greenish stars w black base, lv round hairy	Asclepiadaceae

<i>Coccinia aurantiaca</i>	v	fl orange, lv 3lobed	Cucurbitaceae
<i>Passiflora edulis</i>	v	fl white-violet, fr green, South America	Passifloraceae
<i>Ampelocissus africana</i>	v	lv like Grape with redbrown nerves	Vitaceae
<i>Lobelia angolensis</i>	h	fl pure white, 3 lower lips	Campanulaceae
<i>Gloriosa superba</i>	h	fl red w yellow stamens, pond	Colchicaceae
<i>Cyperus fulgens</i>	h	fl brown, pond	Cyperaceae
<i>Kyllinga erecta</i>	h	fl white globular w lg bracts, pond	Cyperaceae
<i>Arachis hypogaea</i>	h	fl yellow, lv pinnate in 4, peanut South America	Fabaceae
<i>Eriosema psoraleoides</i>	h	fl lemon in spike, lv in 3 cordate	Fabaceae
<i>Vigna vexillata</i>	h	fl lilac on long stem, lv 3p	Fabaceae
<i>Gladiolus dalenii</i>	h	fl soft yellow	Iridaceae
<i>Murdannia semiteres</i>	h	fl lilac blue 3 p, lv linear	Commelinaceae
<i>Nymphoides thunbergiana</i>	h	fl yellow fimbriate, lv round, pond	Menyanthaceae
<i>Ceratostigma abyssinicum</i>	h	fl blue long tubed	Plumbaginaceae
<i>Diodella sarmentosa</i>	h	fl white small 4p, lv opp crosswise, pond	Rubiaceae
<i>Cycnium adonense</i>	h	fl white large, lv long ovate	Scrophulariaceae
<i>Thelypteris striata</i>	f	lv regular pinnate, pond	Thelypteridaceae
<i>Cyphostemma princae</i>	h	fl white in upright umbel, lv serrate 3-5p	Vitaceae

Day 9

A Sao Hill forest reserve, Iringa

Wet meadow,

1810 m

<i>Emilia tenera</i>	h	fl lilac in many small heads	Asteraceae
<i>Cyanotis speciosa</i>	h	fl pale blue lilac 3p	Commelinaceae
<i>Utricularia prehensilis</i>	h	fl yellow, in wet mud	Lentibulariaceae
<i>Cycnium filicalyx</i>	h	fl magenta, large	Scrophulariaceae
<i>Xyris obscura</i>	h	fl lemon-yellow, 3p	Xyridaceae
<i>Disa equestris</i>	o	fl blue lilac	Orchidaceae
<i>Disa stoltzii</i>	o	fl red, upper lip orange yellow red spotted	Orchidaceae
<i>Habenaria gonatosiphon</i>	o	fl white w long small petals	Orchidaceae
<i>Liparis nervosa</i>	o	fl yellow green in buds, small plant	Orchidaceae
<i>Platycoryne pervillei</i>	o	fl orange	Orchidaceae
<i>Satyrium antherstonii</i>	o	fl white in dense corymb (= <i>S. trinerve</i>)	Orchidaceae
<i>Satyrium longicauda</i>	o	fl pure white	Orchidaceae
<i>Satyrium coriophoroides</i>	o	fl red in mall knobs in long spike	Orchidaceae

B Pond 1800 m

<i>Nymphaea caerulea</i>	h	fl lilac, lv margin entire	Nymphaeaceae
<i>Polygonum strigosum</i>	h	fl pale pink, lv lanceolate	Polygonaceae

C Wanging'ombe Roadside, Iringa

Miombo forest,

1400 m

<i>Bauhinia petersiana</i>	t	fl white w red stamens, lv 2p	Fabaceae
<i>Ficinia radiata</i>	g	fl yellow star	Cyperaceae

D Lugala escarpment south of Ruaha, Iringa

Miombo forest,

1150 and 1700 m

<i>Brachystegia manga</i>	t	lv few pinnate, bluegreen blue Miombo	Fabaceae
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Brachystegia spiciformis	t	lv few pinnate, green Miombo	Fabaceae
Delonix elata	t	fl yellow white w long stamens, lv pinnate	Fabaceae
Pterocarpus angolensis	t	lv pinnate, fr yellow-green round winged	Fabaceae
Uapaca kirkiana	t	lv big, ovate parallel nerved	Phyllanthaceae
Protea angolensis	t	lv ovate leathery bluish green, fr large	Proteaceae
Crossopteryx febrifuga	t	fl creme in dense umbel, stamens longer	Rubiaceae
Crotalaria cleomifolia	s	fl yellow, lv 3p dark blue green	Fabaceae
Thunbergia gregorii	h	fl orange yellow	Acanthaceae
Chlorophytum sp.	h	fl white star, fr upright	Anthericaceae
Moraea thomsonii	h	fl pale lilac w yellow dots	Iridaceae
Savannosiphon euryphyllus	h	fl white long tubed, night flowering	Iridaceae
Clematopsis villosa	h	fl white 4p hairy	Ranunculaceae
Habenaria macrura	o	fl white green, lv 2 ovate sitting flat on ground	Orchidaceae
Satyrium anomalum	o	fl white, small with upright spurs	Orchidaceae

Day 10

Kitulo NP, Matamba, Iringa

Montane and subalpine Grasland and relictic Hagenia Mountain forest, 2220 - 2820 m

A Headquarters in montane Rain forest, 2220 m

Cussonia spicata	t	lv palmately digit, fl lg spikes	Araliaceae
Psoralea foliosa	s	fl lilac in pseudoumbel, lv lin small	Fabaceae
Hoslundia opposita	s	fl white, fr orange, lv aromatic	Lamiaceae
Thunbergia alata	v	fl orange to brick red, often black throated	Acanthaceae
Cyphostemma sp.	v	fl pink, lv 5p digitate	Vitaceae
Gloriosa superba	h	fl red w yellow stamens	Colchicaceae

B Numbe Valley, Montane Grasland, 2580-2640 m

Gomphocarpus sp.	s	f reddish brown stars in umbel, lv large	Asclepiadaceae
Artemisia afra	s	lv silvery, much divided, aromatic	Asteraceae
Helichrysum splendidum	s	fl yellow, lv silvery linear	Asteraceae
Adenocarpus mannii	s	fl yellow, lv 3p small	Fabaceae
Aeschynomene abyssinica	s	fl yellow racemose, fl pinn	Fabaceae
Eriosema buchananii	s	fl redish yellow, lv 3p	Fabaceae
Protea heckmanniana	s	fl lemon yellow or pink, lv bluegreen ovate END	Proteaceae
Gnidia fastigiata	s	fl whitish stars, dwarf	Thymelaceae
Stephania abyssinica	v	fl whitish small, lv radial nerved heart shaped	Menispermaceae
Chlorophytum sp.	h	fl white star, fr upright	Anthericaceae
Agrocharis incognita	h	fl white, small	Apiaceae
Agrocharis melanantha	h	fl white, small	Apiaceae
Alepidia peduncularis	h	fl white star	Apiaceae
Heteromorpha involucreta	h	fl yellow, tall, lv ovate	Apiaceae
Bulbine abyssinica	h	fl yellow stars	Asphodelaceae
Kniphofia goetzei	h	fl red tubular, in long spikes	Asphodelaceae
Kniphofia grantii	h	fl red yellow tubular	Asphodelaceae
Aster tansaniensis	h	fl pale lilac	Asteraceae
Berkheya echinacea	h	fl yellow, calyx prickly	Asteraceae

<i>Cirsium buchwaldii</i>	h	fl white, lv spiny teathed	Asteraceae
<i>Crepis newii</i>	h	fl yellow	Asteraceae
<i>Gerbera viridiflora</i>	h	fl white, pink outside nodding	Asteraceae
<i>Haplocarpha thunbergii</i>	h	fl yellow single, lv in rosette	Asteraceae
<i>Helichrysum herbaceum</i>	h	fl gold, lv silvery linear	Asteraceae
<i>Inula stolzii</i>	h	fl yellow, fr brown long stalked	Asteraceae
<i>Senecio laticorymbosa</i>	h	fl yellow, large perennial	Asteraceae
<i>Senecio purpureus</i>	h	fl pink purple	Asteraceae
<i>Impatiens gomphophylla</i>	h	fl orange to red, long spurred, moist	Balsaminaceae
<i>Impatiens rosulata</i>	h	fl white-pink, orange dotted	Balsaminaceae
<i>Cynoglossum amplifolium</i>	h	fl sky blue, lv large	Boraginaceae
<i>Cynoglossum caeruleum</i> ssp. <i>johnstonii</i>	h	fl sky blue, lv small linear	Boraginaceae
<i>Lithospermum afromontanum</i>	h	fl white yellow centred	Boraginaceae
<i>Cyphia</i> sp. cf <i>nyikensis</i>	h	fl pinkish, vine like	Campanulaceae
<i>Lobelia angolensis</i>	h	fl pure white, 3 lower lips	Campanulaceae
<i>Lobelia mildbraedii</i>	h	fl in large spike w green bracts, swamp	Campanulaceae
<i>Lobelia trullifolia</i>	h	fl pale blue, classical small plant	Campanulaceae
<i>Wahlenbergia abyssinica</i>	h	fl pale blue stars	Campanulaceae
<i>Silene burchallii</i>	h	fl cream	Caryophyllaceae
<i>Commelina kituloensis</i>	h	fl pale lilac, END	Commelinaceae
<i>Cyanotis speciosa</i>	h	fl pale blue lilac 3p	Commelinaceae
<i>Crassula alba</i>	h	fl red or white, lv lin	Crassulaceae
<i>Alscolepis capensis</i>	h	fl white head w long linear bracts	Cyperaceae
<i>Carex</i> sp.	h	fl brown like <i>Cx. paniculata</i>	Cyperaceae
<i>Cephalaria pungens</i>	h	fl white	Dipsaceae
<i>Drosera madagascariensis</i>	h	fl pink, small lv red with sticky glands, swamp	Droseraceae
<i>Eriocaulon schimperii</i>	h	fl white balls, lv in basal rosette, swamp	Eriocaulaceae
<i>Argyrobolium rupestre</i>	h	fl yellow, lv 3p	Fabaceae
<i>Astragalus atropilosus</i> ssp. <i>pubescens</i>		fl pink-lilac	Fabaceae
<i>Geranium incanum</i>	h	fl white to pink, lv finely dissected	Geraniaceae
<i>Gunnera perpensa</i>	h	fl reddish hanging stalk, lv rd waved, swamp	Gunneraceae
<i>Hypericum scioanum</i>	h	fl yellow, trailing herb w small ovate lv	Hypericaceae
<i>Aristaea abyssinica</i>	h	fl blue stars	Iridaceae
<i>Dierama pendulum</i>	h	fl lilac hanging lg styled, often only fruits	Iridaceae
<i>Gladiolus dalenii</i>	h	fl soft yellow	Iridaceae
<i>Moraea schimperii</i>	h	fl lilac, mostly in fr, lv lg linear	Iridaceae
<i>Moraea tanzanica</i>	h	fl yellow, lv lg linear	Iridaceae
<i>Ajuga integrifolia</i>	h	fl blue, pyramidal	Lamiaceae
<i>Plectranthus schizophyllus</i>	h	fl blue in spike, lv divided, aromatic	Lamiaceae
<i>Salvia</i> sp.	h	fl light blue	Lamiaceae
<i>Linum thunbergii</i>	h	fl yellow, small star	Linaceae
<i>Epilobium salignum</i>	h	fl pinkish w long style	Onagraceae
<i>Osmunda regalis</i>	f	classical <i>Osmunda</i> near waterfall	Osmundaceae
<i>Oxalis obliquifolia</i>	h	fl pink	Oxalidaceae
<i>Eragrostis racemosa</i>	g	fl grey-brown, daintily	Poaceae
<i>Exothea abyssinica</i>	g	fl black, lg awned spike	Poaceae
<i>Panicum eklonii</i>	g	fl brownish small many flowered	Poaceae
<i>Rumex abyssinica</i>	h	lv hastate often reddish	Polygonaceae
<i>Cheilanthes</i> sp.	f	lv irregularly teathed, rock near waterfall	Pteridaceae
<i>Clematopsis uehensis</i>	h	fl white to pink, nodding 4p	Ranunculaceae
<i>Delphinium leroyi</i>	h	fl white large	Ranunculaceae
<i>Ranunculus raeae</i>	h	fl yellow, long stemed	Ranunculaceae
<i>Thalictrum rhynchocarpum</i>	h	fl purple stamens no petals	Ranunculaceae
<i>Alchemilla ellenbeckii</i>	h	fl greenish, lv round serrate, trailing	Rosaceae
<i>Galium bussei</i>	h	fl pale yellow	Rubiaceae
<i>Galium tanganykensis</i>	h	fl pinkish white	Rubiaceae
<i>Alectra sessiliflora</i>	h	fl yellow, lv opposite	Scrophulariaceae
<i>Buchnera cryptocephala</i>	h	fl lilac stars in corymbs	Scrophulariaceae
<i>Gerardiina angolensis</i>	h	fl lilac, calyx carmine brown	Scrophulariaceae
<i>Sopubia manii</i>	h	fl pink	Scrophulariaceae

Veronica abyssinica	h	fl blue, lv teathed	Scrophulariaceae
Hebenstretia angolensis	h	fl white in dense spike orange yellow tipped	Selaginaceae
Selago nyassae	h	fl white corymbose, lv lin	Selaginaceae
Valeriana capensis	h	fl white, small	Valerianaceae
Xyris obscura	h	fl lemon-yellow, 3p	Xyridaceae
Cynorkis anacamptoides	o	fl lilac-pink, small corymb	Orchidaceae
Disa hircicornis	o	fl carmine rimed greyish	Orchidaceae
Disa robusta	o	fl red-orange, spur upwards	Orchidaceae
Disa saturyopsis	o	?	Orchidaceae
Disa stolzii	o	fl red, upper lip orange yellow red spotted	Orchidaceae
Eulophia ovalis	o	fl deep bronze yellow red spotted	Orchidaceae
Habenaria macrura	o	fl white green, lv 2 ovate sitting flat on ground	Orchidaceae
Habenaria occlusa	o	fl yellow-greenish, much divided END	Orchidaceae
Habenaria papyracea	o	fl greenish, small	Orchidaceae
Satyrium acutirostrum	o	fl deep orange in spike	Orchidaceae
Satyrium crassicaule	o	fl deep pink in spike	Orchidaceae
Satyrium longicauda	o	fl white, few flowered spike	Orchidaceae
Satyrium monadenum	o	fl red, spur incurved END	Orchidaceae
Satyrium neglectum	o	fl whitish, pale to full pink, often slender	Orchidaceae
Satyrium princeae	o	fl pink in spike	Orchidaceae
Satyrium robustum	o	fl vivid cherry in spike	Orchidaceae
Satyrium sceptrum	o	fl orange darker spotted in slender spike	Orchidaceae
Satyrium sphaeranthum	o	fl yellow in spike	Orchidaceae

Day 11

Kitulo NP, Matamba, Iringa

Montane and subalpine grasland and relictic Hagenia Mountain forest, 2540 - 2820 m

A Matamba Ridge,

Subalpine Grasland over Quarzite rock 2630 - 2810 m

here are listed only the species additional to the Montane grasland of the former day 10

Searsia (Rhus) natalensis		lv 3p irr dentate, fr red	Anacardiaceae
Asparagus africanus	s	lv cedar like needles, Fr orange red	Asparagaceae
Helichrysum tillandsifolium	s	cushion forming w linear lv	Asteraceae
Helichrysum sp.	s	lv grey felty large ovate	Asteraceae
Erica kingaensis	s	fl pink bells, lv in 4 rows	Ericaceae
Erica sylvatica	s	fl pinkish small, lv linear, small soft shrub	Ericaceae
Psoralea foliosa	s	fl lilac in pseudoumbel, lv lin small	Fabaceae
Becium (Ocimum) decumbens	s	fl white, lv small ovate, aromatic	Lamiaceae
Phyllica emirnensis	s	fl white over dark green linear lv	Rhamnaceae
Rubus steudneri	s	fl pale pink, lv 3p	Rosaceae
Aloe nuttii	h	fl orangered, lv triangular linear	Asphodelaceae
Emilia tenera	h	fl lilac in many small heads	Asteraceae
Kleinia sp.	h	fl orange-yellow, small compact head	Asteraceae
Impatiens hydrogentoides	h	fl deep pink	Balsaminaceae
Lobelia ovina	h	fl pale pink or lilac, erect	Campanulaceae
Crassula vaginata	h	fl pale yellow, also hybrids with C alba	Crassulaceae
Pelargonium luridum	h	only lg styled divided lv	Geraniaceae
Moraea callista	h	fl white with inky blue center	Iridaceae
Romulea camerooniana	h	fl pink to magenta star	Iridaceae
Helicotrichon elongatum	g	tussock gras	Poaceae
Polygala abyssinica	h	fl magenta, lv linear	Polygalaceae
Thalictrum zernyi	h	fl pale lilac petals!	Ranunculaceae
Alchemilla ellenbeckii	h	fl yellowgreen, lv small round	Rosaceae

Bulbophyllum cochleatum	o	lv bluegreen adpressed at rock	Orchidaceae
Habenaria xanthochlora	o	fl green in spike	Orchidaceae
Schizochilus sulphureus	o	fl yellow, small plant on rock	Orchidaceae

B Montane and subalpine grasland and relictic Hagenia Mountain forest, 2600 - 2800 m

Hagenia abyssinica	t	fl reddish, lv pinnate soft hairy	Rosaceae
Hypericum revolutum	s	fl yellow, lv linear	Hypericaceae
Cyrtanthus breviflorus	h	fl yellow star, lv gras like small	Amaryllidaceae
Aloe nuttii	h	fl orangered, lv triangular linear	Asphodelaceae
Echinops sp.	h	fl/fr in large balls, lv spiny silvery pinnate	Asteraceae
Trifolium wentzelianum	h	fl lilac	Fabaceae
Geranium arabicum	h	fl pink, lv dissected	Geraniaceae
Hypoxis nyasica	h	fl yellow star, styles and lv hairy	Hypoxidaceae
Viola abyssinica	h	fl pale blue	Violaceae
Eulophia streptopetalum	o	fl yellow w brown lines	Orchidaceae

Day 12

Kitulo NP, Iringa and forest above Isyonje, Mbeya

A Montane and subalpine grasland and Hagenia Mountain forest, 2600 - 2800 m

Aphloia theiformis	t	lv dentate alternate	Aphloiaceae
Bersema abyssinica	t	lv pinnate	Melanthaceae
Hagenia abyssinica	t	fl reddish, lv pinnate soft hairy, dominant tree	Rosaceae
Sparrmania ricinocarpa	s	fl white w yellow red tipped stamens, lv irr lobed	Tiliaceae (Malvaceae)
Asplenium theciferum	f	lv linear much divided, epiphyte	Aspleniaceae
Pteridium aquilinum	f	bracken	Dennstaedtiaceae
Lepisorus excavatus	f	lv lg ovate hanging, sori shy often hollow	Polypodiaceae
Pleopeltis macrocarpa	f	lv lg ovate upright, sori orange round prominent	Polypodiaceae

B Utengule coffee farm, Mbeya

Miombo forest,

1400 - 1650 m

Acacia lasiopetala	t	flat crowned tree, base of Mt. Mbeya END	Fabaceae
Spathodea campanulata	t	fl large orange-red, lv pinnate, planted	Bignoniaceae
Grewia stolzii	s	fl white large star, lv serrate ovate	Tiliaceae (Malvaceae)

Day 13

Ngozi Crater Lake, Njipanda, Mbeya

Montane rain forest,

1940 - 2260 m

Polyscias fulva	t	lv pinnate, crown umbrella like, often dominant	Araliaceae
Schefflera goetzenii	t	lv 5-7 p digitate, lg stalked, fr red	Araliaceae
Garcinia kingaensis	t	lv opposite with parallel side nerves	Clusiaceae
Cornus volkensii	t	lv onion nerved, fl buds white	Cornaceae

Cyathea manniana	t	tree fern	Cyatheaceae
Anthocleista grandiflora	t	lv very long crowded at top, cabbage tree	Gentianaceae
Ekebergia capensis	t	lv impair pinnate	Meliaceae
Ensete ventricosum	t	tree like perennial, lv large ovate	Musaceae
Arundinaria alpina	g	tree like mountain bamboo, stem green	Poaceae
Parinari excelsa	t	lv lg ovate alternate olive green above	Rosaceae
Chassalia parvifolia	t	fl white in panicles, lv ov opposite	Rubiaceae
Pavetta johnstonii	t	fl white dense umbel w long stamens, lv ovate	Rubiaceae
Fagaropsis angolensis	t	fl yellow, lv pinnate	Rutaceae
Harrisonia abyssinica	t	lv impair pinnate with winged rachis	Simaroubaceae
Biancaea (Caesalpinia) decapetala s fl yellow corymb, thorny, lv pinnate, India			Fabaceae
Zehneria scabra	v	fl white, lv 3lobate rough	Cucurbitaceae
Dioscoreophyllum volkensii	v	fl pale yellow, lv 3lobed	Menispermaceae
Urera hypselodendron	v	fl white spike, lv serrate	Urticaceae
Achyranthes aspera	h	fl purple in small spike, forest margin	Amaranthaceae
Sanicula elata	h	fl white small, lv 7p divided	Apiaceae
Asplenium theciferum	f	lv linear much divided, epiphyte	Aspleniaceae
Trichomanes sp.	f	filmy fern epiphyte	Aspleniaceae
Impatiens confusa	h	fl deep pink	Balsaminaceae
Impatiens austrotanzanica	h	fl dark red	Balsaminaceae
Impatiens confusa	h	fl deep pink	Balsaminaceae
Impatiens sp.	h	fl lilac-violet	Balsaminaceae
Begonia meyeri-johannis	h	lv ovate, epiphyte on trees, twig red	Begoniaceae
Begonia sutherlandii	h	fl orange yellow, lv ovate, epiphyte on trees	Begoniaceae
Gloriosa superba	h	fl red w yellow stamens	Colchicaceae
Streptocarpus glanulosissimus	h	fl violet, lv at twig, epiphyte	Gesneriaceae
Streptocarpus goetzei	h	fl blue at the top of the tongue like lv, epiphyte	Gesneriaceae
Crocoshmia aurea	h	fl orange, v lanceolate	Iridaceae
Plectranthus sp.	h	fl lilac blue	Lamiaceae
Nephrolepis undulata	f	lv serrate and undulate	Lomariopsidaceae
Adiantum poiretii	f	maiden-hair fern	Pteridaceae
Haplopteris volkensii	f	lv gras like, epiphyte (= Vittaria)	Pteridaceae
Thalictrum zernyi	h	fl pale lilac petals!	Ranunculaceae
Selaginella kraussiana	f	lv scaly	Selaginellaceae
Pilea rivularis	h	lv toothed rugose nerved	Urticaceae
Calanthe sylvatica	o	fl blue lilac large	Orchidaceae

Day 14

A Utengule coffee farm, Mbeya

Miombo forest,

1400 - 1500 m

Cussonia arborea	t	lv 5-7p digitate serrate	Araliaceae
Cordia sinensis	t	fl white in dense racemes, lv lg ovate	Boraginaceae
Brachystegia manga	t	lv few pinnate, bluegreen blue Miombo	Fabaceae
Brachystegia spiciformis	t	lv few pinnate, green Miombo	Fabaceae
Dalbergia nyassae	t	lv inpair pinnate	Fabaceae
Piliostigma thonningii	t	fl white tubular, lv bilobed blue green	Fabaceae
Pterocarpus angolensis	t	lv pinnate, fr yellow-green round winged	Fabaceae
Faurea saligna	t	lv lanceolate	Protaceae
Ziziphus mucronata	t	fl yellowish small, lv serrate ovate	Rhamnaceae
Psychotria capensis	t	fl pale yellow crowded, lv opposite	Rubiaceae
Sterculia quinqueloba	t	lv maple like 5p lobed	Sterculiaceae (Malvaceae)
Strychnos spinosa	t	thorny, lv round ovate 3nerved	Strychnaceae
Vitex mombassae	t	fl white with blue lower lip, lv digitate 5p	Verbenaceae (Lamiaceae)

Searsia tenuinervis	s	lv 3foliate serrate (=Rhus)	Anacardiaceae
Oxyanthus formosus	s	fl white 6-7p thread like petals, lv ov opp	Rubiaceae
Gnidia chrysantha	s	fl deep yellow tubular, lv linear	Thymelaceae
Ruellia megachlamys	h	fl white, lv ovate	Acanthaceae
Kleinia abyssinica	h	fl red	Asteraceae
Commelina latifolia	h	fl blue, lv long ovate	Commelinaceae
Euphorbia sp.	h	fl yellow, lv in whorls	Euphorbiaceae
Gladiolus dalenii	h	fl soft yellow	Iridaceae
Adiantum poiretii	f	maiden-hair fern	Pteridaceae
Cyphostemma sp.	h	fl/fr in terminal umbel, lv 3-5 p serrate	Vitaceae

B Daressalaam, Daressalaam
Street tree, 10 m

Cordia subcordata	t	fl deep orange, lv ovate, planted, but native	Boraginaceae
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22.2.19, Peter Steiger, many species (especially in Kitulo) identified by Rosalind F. Salter