

Wildlife Travel

Morocco 2017



Morocco, species list and trip report, 21 to 28 December 2017

#	DATE	LOCATIONS & NOTES
1	21 December	Afternoon arrival at Agadir, transfer to Atlas Kasbah and local area
2	22 Decenber	Atlantic Coast: Oued Tamri and Cap Rhir
3	23 December	Taroudant, Tioute Palmery and women's cooperative
4	24 December	Free day and Berber celebration
5	25 December	Sous Massa National Park
6	26 December	Anti Atlas: Ait Baha and agadir at Laatik
7	27 December	Western High Atlas: Paradise Valley to the Cascades du Immouzer
8	28 December	Morning flight back to UK

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Day 1: Thursday 21 December. Gatwick to Agadir and Atlas Kasbah

An early start to the day for our flight to Agadir, taking us down across Iberia and along the Moroccan coast - bleary eyes soon forgotten as we touched down in a warm and sunny Morocco. Passports stamped and money changed, we were soon on our way, skirting around the edge of Agadir. Some time spent in slow traffic gave us our first views of the Maghreb Magpie, with its distinctive electric-blue skin around the eye, along with a pair of Hoopoes, which flashed swiftly by. A short drive through the rugged Moroccan landscape and the fortress-like outline of the Atlas Kasbah was revealed. We had a quick tour of our home for the next week, before our first of many herbal infusions, and a welcome lunch of vegetable tagine on the terrace.

There was time left during the afternoon to explore the gardens of the hotel, as the occasional Barn Swallow swooped by. We were first introduced to the Argan Tree *Argania spinosa*, probably the single most important plant of the region and something we would become familiar with during our visit. Argan belongs to the primarily tropical family the Sapotaceae, and today is confined to this corner of Southern Morocco, centred on the Souss Valley; a relic from the time when this area had a tropical climate. The trees, their fruit, and the oil, which comes from the 'nut' are at the heart of much of the local culture and economy, being used for culinary and health purposes, washing, feeding animals, and in much of the local traditional architecture - a very special plant.

The Atlas Kashah has been developed with sustainability very much in mind, and one of the features of the garden is a filtration system for the 'grey water' from the hotel, which is used to irrigate the garden. Sweet Potato *Ipomaea batatus* was growing around the filtration pools, and nestled on the edges and in the water we found several North African Water Frogs. Walking through the gardens; an oasis of green in an often very dry area, we found many of the herbs and fruit trees that would be furnishing our meals, before our walk took us on to the neighbouring hillside.

Along the road we found a number of spiny plants, more resilient to the grazing pressure faced here, including *Launaea arborescens* the 'chicken-wire bush' and *Zizyphus lotus*, which is used as dead hedges around fields, with the bizarre fleshy *Orbea decaisneana* growing at the base of the hedge. In amongst the Argan orchards (with the obligatory goats in trees, as well as among them) we spotted Stonechats and the stunning Moussier's Redstart (one of the specialities of the area), along with several White Wagtails chasing insects around the feet of sheep and goats. A noisy flock of sparrows roved around the orchard, these were mostly House Sparrows, but we picked out several Spanish Sparrows among them; the males' chestnut caps giving them away. We also enjoyed views of the beautifully marked Southern Grey Shrike as it hunted from a prominent perch.

We found rosettes of several plants including *Asphodelus fistulosus* and *Asphodelus ramosus ssp nervosus* whose leaves are laced with sharp silica crystals, Sea Squill *Urginea maritima* and the feathery leaved lavender *Lavandula multifida*. Down in the valley we could see a stock of bee hives; these traditional cylindrical hives are woven from reed with a covering of mud. Then it was time to head back for our first Moroccan dinner of fish and baked aubergine.

Day 2: Friday 22 December. Cap Rhir and Oued Tamri

Today, we headed back towards Agadir, setting out north along the Atlantic coast. As we left the immediate surrounding of the city, the vegetation began to change, with low-growing coastal 'steppe' vegetation on the flatter ground mixed in with areas of succulent *Euphorbia* scrub. Our first stop was just beyond to Cap Rhir, where we first took a closer look of a herd of Dromedary before setting our sights on the plants growing here.

These succulent *Euphorbia*-dominated scrub communities are unique to the south-west Morocco coastline, down into coastal Mauritania and across to the Canary Islands. They are a botanical link between this part of Morocco and the flora of the North Atlantic Islands, collectively termed the Macaronesian flora. In the

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geological past this flora would have been more widespread on the mainland; becoming confined to these climatically favourable areas during recent cycles of glaciation.

The vegetation was dominated by a mixture of three succulent species: the umbrella-forming lime-green shrubby *Euphorbia regis-jubae* (found here and in the Canary Islands); the cactus-like *Euphorbia officinarum* (found in southern Morocco and down to Mauretania) and the bizarre succulent groundsel *Kleinia* (formerly *Senecio*) *anteuphorbium* (endemic to Morocco).

Also making up a significant part of this vegetation were the composite *Nauplius imbricatus* (yet another Moroccan endemic); the semi woody, grey coloured *Polycarpha nivea* with its miniscule leaves; the succulent leaves of *Lycium imbricatum*; *Salsola oppositifolia* with its leathery spiky leaves and pink flowers; *Ononis natrix* with yellow flowers and sticky foliage all successful at deterring the nibbling of the goats; and two lavenders growing side by side: the feathery-leaved *Lavandula multifida* (first seen yesterday) and *Lavandula dentata* var. *candicans*, with narrow velvety-grey leaves and a more medicinal scent. We also found the white-flowered globe thistle *Echinops spinosissimus* ssp. *spinosus*.

Out at sea the splashes of a pod of dolphins were spotted, but out beyond the fishing boats, it wasn't possible to identify the species. Closer at hand, a Moorish Gecko and a small yellow *Buthus* sp. Scorpion were found sheltering under rocks. Crested Larks were calling amongst the vegetation, with occasional song flights, and Sardinian Warblers scolded from the bushes. A flock of Linnets flew over calling brightly and small snatches of their chaotic song could be heard as we walked. Our last find at this stop was several red flower spikes of the parasitic *Cynomorium coccineum* starting to emerge out of the sand; when fully in flower the plant smells of rotting flesh to attract the flies that will pollinate it.

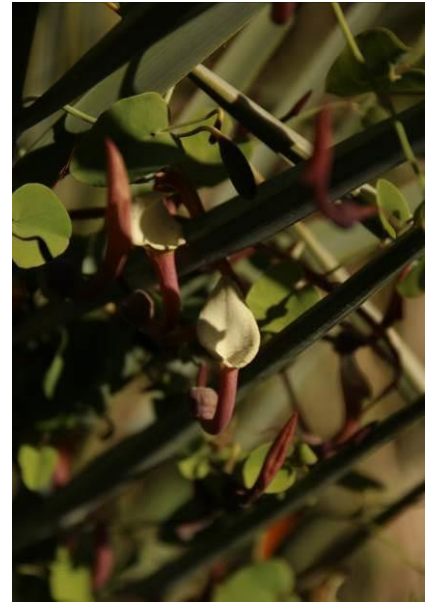
We headed northwards to our picnic spot at the mouth of the Oued Tamri, where the endemic Moroccan Wagtail was carrying out circuits of the car park, and a few of us had a fleeting glimpse of a Black-crowned Tchagra as it characteristically dived between bushes. Fully fed we walked along the beach towards the lagoon, finding several young spikes of the broomrape-relative *Cistanche phelypaea* just starting to emerge from the sand, a parasite of the *Suaeda vera* growing here, and Sea Spurge *Euphorbia paralias* at the back of the beach.

A large flock of Lesser Black-backed Gulls bobbed on the water, amongst them several smaller, silvery Audouin's Gulls. Six Spoonbill and a Little Egret prodded their way through the water, whilst Grey Heron stood statue-like and Great Cormorants dried their wings. An impressive 11 Ruddy Shelduck were present, some upending as they searched for food, while others gently snoozed on the bank alongside a handful of Shoveler. A pair of Marsh Harrier drifted briefly over the reeds and a Kingfisher made a brief appearance.

Just as we were preparing to head back down the beach, an excited shout and we were alerted to the small squadron of black birds flying over the lagoon - the ibis had arrived! Following their flyby, the five Northern Bald Ibis landed at the water's edge, giving us plenty of chance for a good look at them as they preened and drank at this, the main area of freshwater near their colony; their metallic plumage really set-off by the sunlight. This is the bird we'd come to the coast to look for. Once widespread across southern Europe, North Africa and parts of the Middle East, the Northern Bald Ibis is now critically endangered; its decline due to various factors including pesticide poisoning, hunting, disturbance at their nest sites and, more recently, loss of their feeding habitat to coastal development, and they reached a low of only around 100 birds by the 1990s. The last remaining Middle Eastern birds were a tiny colony near Palmyra in Syria, who migrated down via the Yemen to Somalia and Eritrea for the winter. Alas, these birds were doomed by the various conflict zones that make up their territory, and they are now almost certainly extinct. Thankfully the Moroccan population has been a conservation success story with the population now over 600 individuals, split between two nesting areas: here at Tamri, and in the Souss Massa National Park.

Our final stop was at the ruined Kasbah overlooking Agadir, which gave wonderful views down over the fishing port and across the city to the swathe of natural vegetation that is Souss Massa National Park on the far side of the bay. We had a quick stop to buy wine on our way back to the hotel; enabling us to toast our success with the ibis, alongside the traditional Moroccan Friday night dish of couscous.

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Top, l to r: *Narcissus broussonetii* and *Aristolochia baetica*

Bottomleft: *Nerium oleander*. Bottom right: *Cynomorium coccineum* (left), *Euphorbia regis-jubae* (right) and *Calotropis procera* (bottom)

Day 3: Saturday 23 December. Taroudannt and Tioute

Heading east, our journey to Taroudannt took us through the Souss valley, an important area of agricultural production, particularly oranges and bananas and salad crops cultivated under polythene for export to northern Europe.

The town of Taroudannt is often described as a mini Marrakech, its mud-plastered ramparts, dating back to the 16th Century, an impressive sight on arrival. Tucked away inside the walls is the peaceful Hotel Palais Salem, its impressive entrance taking us into a place of shade, shadow and tranquillity, a world away from the hustle and bustle of a town at work. Once a Saadi palace, the hotel's courtyards embodied elements of traditional Islamic gardens as being places of rest and reflection alongside running water and, importantly, a reminder of the promised paradise. In the cool of the hotel's interior, surrounded by Berber tile mosaics and Arabic wall designs, Mohamed explained the fascinating history of Morocco's tribes turbulent and cultural past and its significance to Taroudant's market town beginnings, situated on a major caravan route between the north and the Sahara.

The inner courtyard with its central babbling fountain and bathed in the dappled shade of ancient fig trees, flowering banana plants and loquats *Eriobotrya japonica*, led us into what was once the harem garden, complete with an immense rubber tree *Ficus elastica*, its buttress roots, snaking their way across the flower bed. The main garden, a mix of exotics, succulents, native trees and shrubs dwarfed the old building and we soon found a sunny spot as we sat by the pool drinking coffee, among the hibiscuses and palm trees, whilst Common Bulbul and House Bunting sang around us.

After a short walk round to the city walls from which we spotted a White Stork keeping watch atop a mast and gathered legions of Cattle Egrets on nearby roofs, we headed into the souk, soaking up the sights and sounds of the market, and making the most of the retail opportunities offered by spice merchants and dried fruit sellers.

We left Taroudannt and headed south towards the edge of the Anti-Atlas, a much lower and older range of mountains than the High Atlas to the north. Lunch was on the edge of the palmery near the village of Tioute, home to an amazing structure of metal and cables giving support to 17 wisterias, planted in a circle which over time had grown to create what could only be described as a huge circus tent. Lunch finished, we watched as a White Stork joined the cats to search out any scraps we may have overlooked.

After lunch we set off on a walk along the irrigation channels that are the life-blood of the palmery. The Date Palms, *Phoenix dactylifera* require a constant source of water and hence are associated with springs in these arid environments. The dates produced by this palm are harvested from September and stored for later sale (in season at Christmas in the UK) or used as a source of food for the local people. Lining the irrigation channels was the familiar Maidenhair Fern, *Adiantum capillus-veneris*, along with the occasional Brookweed *Samolus valerandi* and we spotted a powdery blue male Epaulet Skimmer. Other water-demanding plants including White Poplar *Populus alba* and the Carob tree *Ceratonia siliqua*.

Amongst the palm trees were small fields planted up with alfafa and barley, and Painted Lady, Greenish Black Tip and African Grass Blue flitted amongst the plants. The bizarre but beautiful 'dutchman's pipe' flowers of the climbing birthwort *Aristolochia baetica* (the foodplant of the Spanish Festoon) were found in bloom along the trackside. A long range spot by Chris of a raptor perched on the hillside in the distance drew our attention, and as the bird took to the sky it revealed itself to be an adult Bonelli's Eagle, as suspected.

Our final stop was at the Argan oil co-operative in the village of Tioute, a mixture of both modern technology and the traditional, from the room of local women cracking the nuts by hand, through to the pressing machine and bottling process. This is the second oldest co-operative in Morocco founded in 2001, our purchases a direct way to return money to the local population.

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Following a dinner of fish tagine, we had a brief nocturnal safari in the gardens; to look for mammals; although we only managed a brief flyby from a bat, we did find a Moorish Gecko that had found a safe and warm refuge inside one of the lamps illuminating the hotel driveway.

Day 4: Sunday 24 December. Free day at Atlas Kasbah and Tighanimine El Baz

Today was a free morning, and several of the group took the opportunity to hone their culinary skills and prepare a delicious tagine ready for lunchtime. The rest of us set out for a walk to explore the nearby village. Following Ahmed, our guide from the village, we found a bank full of the endemic *Narcissus broussonetii* in full bloom. As we headed along a track alongside the village's understated graveyard we spotted a Cirl Bunting moving amongst the low scrub. A chirpy whistling drew our attention to the presence of Black-crowned Tchagra and we soon spotted two of these colourful birds, flirting and duetting amongst the bushes. Two quickly became one again, but we were rewarded with fantastic views of North Africa's only bush shrike, as he moved between several song posts giving us the best of his repertoire. As we passed through Tighanimine El Baz and crossed the dry riverbed we found Oleander *Nerium oleander* flowering, along with its attendant strikingly-marked Oleander Seedbugs.

We carried on up into the old, now mostly abandoned village on the other side. Here there were large clumps of the prickly pear cactus *Opuntia ficus-barbarica*: a widely naturalised and often invasive species, a domesticated form thought to originate in Mexico, useful for its fruits and known locally as the Barbary Fig. High on the hillside, perched atop an abandoned building a female Blue Rock Thrush kept watch as donkeys, sheep and goats were walked through the streets. Black Wheatears joined House Buntings on buildings and we had brief views of a male Chaffinch; quite different looking to its European counterpart. Walking back to the Atlas Kasbah a Southern Grey Shrike was sitting close by on vegetation before whizzing off, and Bath White was nectaring at the side of the road.

After some free time, our festivities kicked off with a traditional Berber tea ceremony; with our hosts Helene and Hassan explaining the significance of tea for the Moroccan culture, as we sipped both mint and saffron teas. This led us into our immersion into all things Berber, with the opportunity to learn more about Berber health and beauty (including henna tattoos!), and a quick lesson in both Berber and Arabic script from M'bark; and even try out the traditional costume. We then tucked in to our festive feast (culminating in a slightly less traditional chocolate log adorned with fountain candles!) to a soundtrack of traditional Berber music.

Day 5: Monday 25 December. Souss Massa National Park

Today was something a little bit different. Instead of our trusty minibus, Mohammed arrived this morning at the head of a convoy of five 4-wheel drives which whisked us off around the outskirts of Agadir to the Souss Massa National Park. After a short introduction to the Park from Philip, we entered the Rokein Special Reserve, a 2000 hectare enclosure within the National Park.

The 'Sahelo-Saharan megafauna' is one of the most endangered assemblages of large animals in the world, threatened by a combination of lack of grazing through competition with domestic livestock, primarily goats and camels, and overhunting, with increasing numbers of high powered weapons now freely available across large swathes of their former range (think countries like Libya and Tunisia, Mali and Chad, all countries now more familiar from the nightly news). Once widespread across the arid regions of North Africa, almost all the large mammals of the Sahara are now extremely rare in the wild: four important members of the 'Sahelo-Saharan megafauna' have been 're-wilded' here in the Souss Massa National Park.

First up, we found the handsome Addax, a large, ghostly pale antelope, a native of stony and sandy areas out in the Sahara proper, now down to as few as just three individuals in the wild but obviously doing very well here. We also enjoyed great views of the Red-necked Ostriches; this North African subspecies is the largest of the ostriches, making it the largest bird in the world, and is noticeably more colourful than the sub-Saharan birds more familiar from East and Southern African safaris. The males were looking

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particularly red-flushed; their minds clearly turning towards making a new generation of ostriches. Dorcas Gazelle were dotted around the enclosures, with their beautiful lyre-shaped horns and intricate markings in their ears, these are the one antelope from the group still doing reasonably well in the wild.

To finish off our 'mega-fauna' quartet, the third of the antelopes, and the largest, was the beautiful Scimitar-horned Oryx, with their ginger neck, tear-shaped face markings and swept back scimitar horns, found in the nearby 1,200 hectare reserve of Arrouais. This species is now extinct in the wild, with the population here now the largest single herd left on the planet. Hopeful news comes from Chad, where last year a group of captive-born animals was released into a large fenced enclosure in the Ouadi Rime-Ouadi Achime Game Reserve, the last former-stronghold of the species in the wild. In August 2016, after the rainy season had begun, 21 animals were released into the wild, and in September 2016 a single calf was born, the first 'wild born' Scimitar-horned Oryx for over 30 years. 14 more animals were released early this year, and the ambitious target is to have a self-sustaining population of 500 animals within 5 years. Good news indeed, for an animal that really needs some!

Other wildlife spotted within the park included the Spur-thighed Tortoise, a juvenile Bonelli's Eagle soaring over, and a covey of Barbary Partridge scuttling among the bushes.

Following lunch and an impromptu roadside stop to view Little Owl and Long-legged Buzzard occupying perches on opposite sides of the road, we had a quick stop at a local pottery to get our fill of ice cream and ceramics (and rugs!). Continuing back towards Agadir, our final stop was the estuary at Oued Souss. The first spot on our arrival was a watchful Osprey, perched above the water. A large number of Greater Flamingos was amassed and as we walked further down we picked out Grey Plover, Ringed Plover, Ruff, Dunlin, Avocet, Black-winged Stilt, Redshank, Greenshank, Oystercatcher and both Bar and Black-tailed Godwits. In the scrub behind us came the jangling song of the Serin and we managed some good looks at this chunky little finch. A little time here to soak up the hustle and bustle of wading life before we headed back towards the vehicles, while White Storks circled in the distance, as we set back for the Kasbah.

Day 6: Tuesday 26 December: Into the Anti-Atlas

Heading south-east we took the road to Ait Baha one of the larger towns in the western Anti Atlas to explore the plants and landscapes of this region. The Anti-Atlas contains some of the oldest rocks in the World, an ancient mountain range which started to form 300 million years ago and once rivalled the Himalayas in height. Today they are much eroded, the highest peaks between 2,500-2,700m.

In comparison the more recent High Atlas only reached their maximum height within the last 10 million years: the tallest peak is Jbel Toubka at 4,167m. A major feature of the Anti-Atlas is the highly folded rock strata, numerous valleys and rounded peaks, with many villages still living their traditional lifestyles.

As we approached across the river valley of the Souss we spotted large plants of a grey-leaved fleshy plant up to 3-4 metres tall, the primarily Saharan species, *Calotropis procera* in the Apocynaceae (now home to what was the Asclepidaceae, the milkweeds). This highly poisonous plant, with the delightful English name of Sodom's Apple Milkweed, is the larval foodplant of the Plain Tiger, a butterfly related to the well-known Monarch. The caterpillars feed on the toxic plants and are able to tolerate and sequester the plant's steroidal heart poison as a form of defence, making them inedible to predators - alas, this time we couldn't find any caterpillars, but a Busack's Fringe-toed Lizard posed nicely for photos.

We headed in to Ait Baha for a quick coffee (and shoe shopping) stop, before climbing further into the Anti-Atlas, spotting Barbary Ground-squirrels poised on rocks before they scurried away. We were headed for the tiny village of Laatik, to visit an ancient *agadir*, a fortified grain store dating from the time when local Berber tribes still fought each other (this particular *agadir* is some 770 years old). These buildings are typical of the Anti-Atlas and we saw a few others during the day perched on high ground with commanding views. It was a treat to be taken inside by the local custodian to see the wonderful old architecture, including the store rooms accessed by 'stepping stones' and a well for freshwater to survive any siege, and to get a chance to look inside the store rooms and the prison.

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Top, l to r: Red-necked Ostrich and Moussier's Redstart
Bottomleft: Addax. Bottom right: Stone Curlew (left), Black-crowned Tchagra (right) and Dorcas Gazelle (bottom)

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House Buntings were bustling around the *agadir*, and a fetching male Blue Rock Thrush surveyed us during our visit - his rich colours gleaming in the sun. Within the *agadir* Spur-thighed Tortoises roamed, each daubed with red paint to alert visitors to their presence; it is one of the beliefs here that tortoises will protect your home from scorpions. Outside the walls were a number of large grain threshing platforms. These are still in use; every April a team of six donkeys thresh the barley harvest, a proportion of which is always donated to those in need.

As we started our way homewards, we stopped to explore an area of rocky hillside covered with a rock garden of *Euphorbia officinarum*; here growing in the beautifully tight cushions of the *echinarum* form (considered by some to be a distinct subspecies), under the watchful eye of Black Wheatears, while at the roadside Fiona showed us the fossilised remains of an ancient stromatolite, before it was back for a dinner of Pastilla, or Moroccan pie.

Day 7: Wednesday 27 December. The Western High Atlas

Driving north on the coast road, our route cut inland to explore the foothills of the western High Atlas. Our first stop was within a narrow river gorge at around 200m, the vegetation still very much dominated by Argan trees, with *Euphorbia officinarum* on the dry slopes, fossilised oyster beds, and a wintering Robin.

Our next stop was an opportunity to explore the open woodland of *Tetraclinis articulata*, the 'Thuja of the Berbers'. This conifer is primarily found only in Morocco and Algeria, with two small relict populations in Malta and Andalusia. Morocco holds 600,000ha of the 1Mha world population of the tree. Well-known for its unusual grain and rich colour, tetraclinis wood is handcrafted to produce ornaments and kitchen utensils; its large burrs or *lupias*, a result of 'self-coppicing', a way of coping with wildfires and overgrazing, are much prized by wood-carvers. Its resin, sandarac gum, is used to make a liquor taken as a remedy for cramps, insomnia and difficult childbirths. The name refers to the cones which are split into fours and its finely divided foliage. Also present here was the hawthorn-like *Searsia pentaphylla* (just like the *Searsia tripartita* we had seen at the coast, but with five-lobed leaves instead of three-lobed), Wild Olive, Carob, Almond and *Cistus crispus*.

Reaching the palmery at the start of Paradise Valley, we spotted a Grey Wagtail at the water's edge as we started our walk. On the slopes above us (but unfortunately out of reach) we spotted the aromatic *Warionia saharae* growing out of the cliff face; a plant very much of the Sahara that reaches its northerly limit here. Also growing up on the cliff were the spikes of the bizarre succulent *Apteranthes europaea* and a Moroccan Day Gecko was basking here. Walking a little further along the river, a stand of *Hypericum aegyptiacum* was found growing down by the riverside, along with the Chaste Bush *Vitex agnus-castus*. On the slopes we found *Perralderia coronopifolia* ssp *purpurascens* and *Globularia alypum* flowering side by side. A pair of Bonelli's Eagles glided over us while Crag Martins wove effortlessly around the cliff faces.

We continued on to our lunch stop below the Cascades du Immouzer, which alas were not cascading! We had a chance for a close look at Caper *Capparis spinosa* before the local traders descended giving us our cue to move on. Driving along a valley at about 1,300m where the south-facing side was dominated by impressive fans of the Dwarf Fan Palm *Chamaerops humilis* var. *cerasifera*, the variant with softer glaucous foliage, looking very different to the variety familiar from nurseries back home. On the cooler north-facing side of the valley, a different vegetation was clearly present; dominated by Kermes Oak, *Quercus coccifera*, again another indicator of altitude: this is really a plant of the Mediterranean but growing this far south is only found in the cooler and more amenable climate found at altitude in the High Atlas. As we explored a North African Elephant Shrew or Sengi shot across the road giving some of us a glimpse of this long-snouted insectivore. The star of the show however was a male Tristram's Warbler; giving us fantastic views as he surveyed us from a perch, before diving back into the scrub.

One final stop came after we'd crossed the ridge of the mountains at 1,550m, where we found a steppe-like dwarf shrub vegetation growing on what was almost limestone pavement. Here we found the shrubby

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Polygala balansae, alas not yet in flower, and several Moroccan Day Geckos basking on rocks, as we took in the view over the High Atlas. As we headed back through the country lanes towards the hotel we had one final impromptu stop; a field full of Stone Curlew, at least 28 of the nocturnal waders with their staring yellow eyes. One final dinner and we headed up to the roof terrace of the Atlas Kasbah to listen (unsuccessfully) for the shrieking calls of Stone Curlew that were undoubtedly in the fields around us, before turning our attention to the constellations adorning the night sky.

Day 8: Thursday 28 December. Return home

Following one last delicious breakfast involving the now familiar passing of pots of jam and amlou, and baskets of bread, there was time for one more lemongrass tea on the terrace, and an opportunity to thank Mohammed for his wonderful driving over the week and M'bark on behalf of Rasheeda, Hussein and the rest of the Atlas Kasbah team for our stay and their great hospitality.

Laurie Jackson and Philip Precey, Wildlife Travel, December 2017

A gallery of photos from this Morocco trip can be found on our flickr site, along with an album of pictures from all our previous Moroccan visits: www.flickr.com/photos/wildlifetravel/albums/72157690075138391

A useful website of the flora of south-west Morocco is at <http://www.teline.fr/en>



Some of Morocco's interesting geology: beach rock (top left), fossilised stromatolite (top right), fossilised oyster bed (bottom left) and the geology of Paradise Valley (bottom right)

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E = endemic species, e = endemic subspecies, P = planted

	SCIENTIFIC NAME	NOTES	First seen
PTERIDOPHYTES			
	<i>Asplenium cf ceterach</i>	The woolly fern on the rocks, similar to Rustyback fern	26
	<i>Adiantum capillus-veneris</i>	Maidenhair Fern Along the water channels in the palmery at Tioute	23
CONIFERS			
Cupressaceae			
P	<i>Cupressus sempervirens</i>	Pencil Cypress eg in the garden, around Immouzer	21
	<i>Tetraclinis articulata</i>	Thuya of the Berbers Common higher up in the High Atlas.	27
Pinaceae			
P	<i>Pinus halepensis</i>	Aleppo Pine Planted around Immouzer	27
DICOTYLEDONS			
Aizoaceae			
P	<i>Carpobrotus acinaciformis</i>	Hottentot Fig eg planted in the garden, along the roadsides around Agadir	21
Amaranthaceae			
	<i>Salsola oppositifolia</i>	Shrub with pink papery disc flowers at Cap Rhir	22
Anacardiaceae			
P	<i>Pistacia atlantica</i>	The tree at the end of the café garden, Immouzer	27
	<i>Pistacia lentiscus</i>	Higher up in the High Atlas	27
	<i>Searsia (=Rhus) tripartita</i>	Three-lobed leaves, 'hawthorn-like' bush, Cap Rhir	22
	<i>Searsia (=Rhus) pentaphylla</i>	Five-lobed leaves, 'hawthorn-like' bush near the Tetraclinis	27
Apiaceae			
	<i>Ferula vulgare</i>	Giant Fennel In the Oryx enclosure and common in the Anti-Atlas	25
Apocyanaceae (includes Asclepiaceae)			
	<i>Calotropis procera</i>	Sodoms Apple Milkweed. The large, Saharan scrub, food plant of the Plain Tiger	26
	<i>Nerium oleander</i>	Oleander eg the dried river bed in the village	24
E	<i>Orbea decaisneana var hesperidum</i>	The fleshy succulent at the base of the dead hedge, on the roadside outside the hotel	21
	<i>Periploca angustifolia</i>	Clambering vine/bush with bullhorn seed pods	21
	<i>Apteranthes (=Caralluma) europaea</i>	The succulent on the cliff in Paradise Valley	27
Araceae			
	<i>Arisarum simorhinum</i>	Leaves in the Anti-Atlas	26
Aristolochiaceae			
	<i>Aristolochia baetica</i>	Abundant in the palmery: vine with 'dutchman's pipe' flowers, the food plant of Spanish Festoon	23
Asteraceae			
	<i>Echinops spinosissimus ssp spinosus</i>	The white globe thistle at Cap Rhir	22
E	<i>Kleinia (=Senecio) anteuphorbium</i>	Succulent shrubby 'groundsel' around Cap Rhir	22
	<i>Launaea arborescens</i>	Chicken wire bush	21
E	<i>Nauplius (=Asteriscus) imbricatus</i>	Fragrant leaves: bush around Cap Rhir	22
	<i>Perralderia coronopifolia ssp purpurascens</i>	Yellow daisy in Paradise Valley	27
Boraginaceae			
	<i>Heliotropium crispum</i>	Flowering at the Agadir	26
Cactaceae			
P	<i>Opuntia ficus-barbarica (=O ficus-indica)</i>	Fig of the Berbers An invasive, domesticated cactus, originating in Mexico, common around villages	22
P	<i>Austrocylindropuntia subulata</i>	The cylindrical cactus, introduced from Peru	22

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	SCIENTIFIC NAME	NOTES	First seen
	Cappariaceae		
	<i>Capparis spinosa</i>	Caper. In the shade near the lunch spot, Immouzer	27
	Caryophyllaceae		
	<i>Polycarpaea nivea</i>	Encrusted grey semi-shrub, Cap Rhir	22
	Chenopodiaceae		
	<i>Suaeda vera</i>	Shrubs in the dunes at Oued Tamri	22
	Cistaceae		
	<i>Cistus crispus</i>	In the High Atlas	27
	Convolvulaceae (includes Cuscutaceae)		
	<i>Convolvulus althaeoides</i>	Leaves at the Agadir	26
	<i>Cuscuta cf planiflora</i>	The red-stemmed dodder, with flowers in dense little clusters	24
P	<i>Ipomaea batata</i>	Sweet Potato in the garden, around the ponds	21
	Crassulaceae		
E	<i>Sedum modestum</i>	Cushions of sedum on the cliff-face in Paradise Valley: endemic to southern Morocco	27
	<i>Umbilicus rupestris</i>	Navelwort	26
	Cynomoriaceae		
	<i>Cynomorum coccineum</i>	Sandy soil near Cap Rhir	22
	Euphorbiaceae		
P	<i>Euphorbia ingens</i>	Candelabra Tree Very tall, tree-like succulent Euphorbia, eg in the garden of the Hotel Palais Salem, Taroudannt. Native to southern Africa	23
	<i>Euphorbia officinarum</i>	The 'cactus'-like succulent, around Cap Rhir (var officinarum, growing tall, columnar, endemic to Morocco) and in the Anti Atlas (var echinum, growing in dense cushions, also found in Mauretania)	22
	<i>Euphorbia paralias</i>	Sea Spurge On the beach at Oued Tamri	22
	<i>Euphorbia regis-jubae</i>	Lime green, shrub-forming Euphorbia around Cap Rhir. Endemic to Morocco and the Canary Islands	22
	<i>Mercurialis annua</i>	Annual Mercury eg in the palmery	23
	<i>Ricinus communis</i>	Castor Bean Plant roadside weed	23
	Fabaceae		
	<i>Vachellia ehrenbergiana</i>	The spiny bush around the edges of Sous Massa	25
E	<i>Vachellia gummifera</i>	Small bush, red stems, fine leaves	21
P	<i>Acacia saligna</i>	Golden Wattle Australian, planted in the garden and common in the animal enclosures at Sous Massa	25
	<i>Ceratonia siliqua</i>	Carob Planted in the garden, and in the palmery at Tioute	23
	<i>Genista tricuspidata</i>	The yellow 'gorse' all over the High Atlas hillsides	27
E	<i>Hesperolaburnum platycarpum</i>	The common 'gorse' in the Anti Atlas: stems used for basket weaving	26
	<i>Ononis natrix</i>	Smelly, sticky leaves, yellow restharrow along roadsides	22
	<i>Retama monosperma</i>	A broom (has white flowers when flowering)	22
	Fagaceae		
	<i>Quercus coccifera</i>	Kermes Oak The spiky-leaved shrubby oak in the High Atlas	27
	Hypericaceae		
	<i>Hypericum aegytiacum</i>	Along the river in Paradise Valley	27
	Lamiaceae		
	<i>Lavandula dentata var candicans</i>	Around Cap Rhir: velvety grey leaves	22
	<i>Lavandula dentata</i>	The 'standard' variety, in the High Atlas	27
	<i>Lavandula multifida</i>	Pinnate leaves, medium-large flowers. eg the goat track near the hotel; common in the palmery at Tioute	21

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	SCIENTIFIC NAME	NOTES	First seen
Malvaceae			
P	<i>Hibiscus rosa-sinensis</i>	Hibiscus in the garden	21
P	<i>Hibiscus tileaceae</i>	Cotton Bush in the garden	21
Moraceae			
	<i>Ficus carica</i>	Common Fig Common in the palmery at Tioute. Four massive ancient trees in the Palais Hotel grounds, Taroudant. Near the cascades at Immouzer	23
P	<i>Ficus elastica</i>	Rubber Fig A massive specimen in the harem courtyard, Palais Hotel ground, Taroudant	23
P	<i>Ficus lyrata</i>	Fiddle-leaf Fig The third species of fig in the Palais Hotel grounds, Taroudant: commonly sold as a house plant (eg at Ikea!)	23
Myoporaceae			
P	<i>Myoporum laetum</i>	The white-flowered plant planted as a hedge around the hotel garden: introduced from New Zealand	23
Nyctaginaceae			
P	<i>Bougainvillea sp</i>	Common planted shrubs around towns, eg the hotel garden	21
Orobanchaceae			
	<i>Cistanche phelypaea</i>	Desert Hyacinth just emerging spikes in sandy soil	22
Oleaceae			
	<i>Olea europaea</i>	Olive Wild in the High Atlas, planted in the hotel grounds	27
Plantaginaceae (inc Globulariaceae and part of Scrophulariaceae)			
	<i>Globularia alypum</i>	In Paradise Valley	27
Plumbaginaceae			
	<i>Limonium sinuatum</i>	In the village cemetery	24
Polygalaceae			
	<i>Polygala balansae</i>	The shrubby milkwort in the High Atlas. Near-endemic, with one other population near Granada in Spain	27
Primulaceae			
	<i>Samolus valerandi</i>	Brookweed Along the watercourse edges in the palmery	23
Rhamnaceae			
	<i>Zizyphus lotus</i>	Very spiny hedging bush. Foodplant of the Common Tiger Blue	21
Rosaceae			
	<i>Prunus dulcis</i>	Almond near the agadir in the Anti Atlas, and higher up in the High Atlas	26
	<i>Eriobotrya japonica</i>	Loquat In the Palais Hotel ground, Taroudant	23
Salicaceae			
	<i>Populus alba</i>	White poplar In the palmery	23
Sapotaceae			
E	<i>Argania spinosa</i>	Argan	21
Solanaceae			
	<i>Lycium intricatum</i>	Cap Rhir	22
	<i>Nicotiana glaucum</i>	South American weed in the village, at roadsides	21
	<i>Withania somnifera</i>	Poisonous bush with glossy leaves and yellow bell-shaped flowers. Eg hedges near the hotel	21
Tamaricaceae			
	<i>Tamarix gallica</i>	French Tamarisk	22
Urticaceae			
	<i>Urtica pilulifera</i>	Village near the hotel	24
Verbenaceae			
	<i>Vitex agnus-castus</i>	Chaste Bush Along the river bank in Paradise Valley. Used to make a tea to control the urges of monks...	27

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	SCIENTIFIC NAME	NOTES	First seen
MONOCOTYLEDONS			
Amaryllidaceae			
E	<i>Narcissus broussonetii</i>	On the bank near the village, and in Paradise Valley	24
	<i>Pancratium maritimum</i>	In the village cemetery: perhaps planted	24
Aracaceae			
	<i>Chamaerops humilis</i> var <i>cerifera</i>	Dwarf Fan Palm The glaucous form, in the High Atlas	27
	<i>Phoenix dactylifera</i>	Date Palm A common roadside tree. Some wonderful old trees in the palmery at Tioute.	23
P	<i>Washingtonia filifera</i>	A common planted roadside tree: native to S America	23
Asparagaceae			
	<i>Asparagus acutifolius</i>	In the village near the hotel	24
	<i>Asparagus albus</i>	The spiny, shrubby asparagus, with pale stems	24
Poaceae			
	<i>Arundo donax</i>	Giant Reed. Eg the dry river bed in the village	22
Xanthorrhoeaceae			
	<i>Asphodelus ramosus</i> ssp <i>nervosus</i>	broad-leaved asphodel	21
	<i>Asphodelus fistulosus</i>	fine-leaved asphodel on grazed hillsides	21
	<i>Urginea maritima</i>	Sea Squill Tulip-like leaves on grazed hillsides	21

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	ENGLISH NAME	SCIENTIFIC NAME	21	22	23	24	25	26	27	28
Family Ratidae (Ratites)										
	Red-necked Ostrich	Struthio camelus camelus					♦			
		This sub-species is now Critically Endangered : once widespread across northern Africa, they now survive in the wild just in Cameroon, Chad and Central African Republic, as well as in a couple of National Parks in Tunisia where, like here, they have been reintroduced.								
Family Anatidae (Ducks, Geese & Swans)										
	Ruddy Shelduck	Tadorna ferruginea		♦						
	Shoveler	Anas clypeata		♦						
	Teal	Anas crecca					♦			
	Pochard	Aythya farina		♦						
Family Phasianidae (Pheasants and Partridges)										
	Barbary Partridge	Alectoris barbara					♦			
Family Podicipedidae (Grebes)										
	Little Grebe	Tachybaptus ruficollis		♦						
Family Sulidae (Gannets)										
	Gannet	Morus bassanus		♦						
Family Phalacrocoracidae (Cormorants)										
	Great Cormorant	Phalacrocorax (carbo) carbo/sinensis		♦						
Family Ardeidae (Hérons)										
	Western Cattle Egret	Bubulcus ibis			♦		♦	♦		
	Little Egret	Egretta garzetta		♦			♦			
	Grey Heron	Ardea cinerea		♦			♦			
Family Ciconiidae (Storks)										
	White Stork	Ciconia ciconia			♦		♦	♦		
Family Threskiornithidae (Spoonbills and Ibises)										
	Northern Bald Ibis	Geronticus eremita		♦						
		Currently categorised as Critically Endangered , during the 2015 breeding season a record count of 116 nesting pairs was made, and by the end of 2015 the total wild population in Morocco was over 600 individuals, up from 433 at the end of 2013. Outside Morocco, around 100 birds live in semi-captivity at Birecik in Turkey. By 2015 just a single bird survived at the recently discovered but seemingly doomed colony near Palmyra in Syria, from where there has been no news since the civil war.								
		A recently reintroduced population in southern Spain now numbers around 80 released birds, and the first breeding took place in 2008.								
	Spoonbill	Platalea laucorodia		♦						
Family Phoenicopteridae (Flamingoes)										
	Greater Flamingo	Phoenicopterus roseus					♦			
Family Pandionidae (Ospreys)										
	Osprey	Pandion haliaetus					♦			
Family Accipitridae (Hawks and Eagles)										
	Bonelli's Eagle	Circaetus gallicus					♦		♦	
	Black-winged Kite	Elanus caeruleus			♦					
	Marsh Harrier	Circus aeruginosus		♦						
	Atlas Long-legged Buzzard	Buteo rufinus cirtensis					♦			
	Sparrowhawk	Accipiter nisus		♦					♦	
Family Falconidae (Falcons)										
	Peregrine	Falco peregrinus					♦			
	Lanner	Falco biarmicus						♦		
	Kestrel	Falco tinnunculus	♦	♦	♦		♦	♦	♦	

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ENGLISH NAME	SCIENTIFIC NAME	21	22	23	24	25	26	27	28
Family Rallidae (Rails and Crakes)									
Coot	Fulica atra		◆						
Family Recurvirostridae (Avocets and Stilts)									
Avocet	Recurvirostra avosetta					◆			
Black-winged stilt	Himantopus himantopus					◆			
Family Burhinidae (Stone curlews)									
Stone Curlew	Burhinus oediconemus							◆	
Family Haematopidae (Oystercatchers)									
Oysterdatcher	Hametopus ostralegus					◆			
Family Scolopacidae (Sandpipers)									
Dunlin	Calidris alpina					◆			
Ruff	Philomachus pugnax					◆			
Curlew	Numenius arquata					◆			
Black-tailed Godwit	Limosa limosa					◆			
Bar-tailed Godwit	Limosa lapponica					◆			
Redshank	Tringa totanus					◆			
Greenshank	Tringa nebularia					◆			
Green Sandpiper	Tringa ochropus					◆			
Family Charadriidae (Plovers)									
Ringed Plover	Charadrius alexandrinus					◆			
Golden Plover	Pluvialis apricaria					◆			
Grey Plover	Pluvialis squatarola					◆			
Family Laridae (Gulls)									
Black-headed Gull	Chroicocephalus ridibundus					◆			
Mediterranean Gull	Ichthyaetus melanocephalus					◆			
Audouin's Gull	Ichthyaetus audouinii		◆						
Yellow-legged Gull	Larus michahellis	◆	◆	◆	◆	◆	◆	◆	◆
Lesser Black-backed Gull	Larus fuscus		◆			◆		◆	
Family Sternidae (Terns)									
Sandwich Tern	Sterna sandvicensis		◆						
Family Columbidae (Pigeons and Doves)									
Rock Dove/Feral Pigeon	Columba livia	◆	◆	◆	◆	◆	◆	◆	
Woodpigeon	Columba palumbus			◆		◆	◆	◆	
Collared Dove	Streptopelia decaocto		◆	◆	◆	◆	◆	◆	◆
Laughing Dove	Streptopelia senegalensis							◆	
Family Strigidae (Owls)									
Little Owl	Athene noctua					◆			
Family Upupidae (Hoopoes)									
Hoopoe	Upupa epops		◆						
Family Alcedinidae (Kingfishers)									
Kingfisher	Alcedo atthis		◆	◆	◆	◆		◆	
Family Alaudidae (Larks)									
Crested Lark	Galerida cristata		◆	◆	◆	◆		◆	
Thekla Lark	Galerida theklae						◆	◆	
We identified our larks using the very un-rigorous and no doubt flawed logic that the smarter birds in rocky areas were Thekla Larks, while those in the flat arable fields were Crested Larks.									
Family Hirundinidae (Swallows and Martins)									
Swallow	Hirundo rustica	◆	◆		◆	◆	◆	◆	◆
Crag Martin	Ptyonoprogne rupestris						◆	◆	
Family Motacillidae (Pipits and Wagtails)									
Grey Wagtail	Motacilla cinerea			◆				◆	
White Wagtail	Motacilla (a.) alba	◆	◆	◆	◆	◆	◆	◆	◆

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	ENGLISH NAME	SCIENTIFIC NAME	21	22	23	24	25	26	27	28
	Moroccan Wagtail	<i>Motacilla (a.) subpersonata</i>		◆			◆			
		The very-distinctive <i>subpersonata</i> form is endemic to Morocco, and is split by some authorities from the White Wagtail as <i>Motacilla subpersonata</i>								
Family Muscicapidae (Flycatchers and Chats)										
	Black Redstart	<i>Phoenicurus ochrurus</i>		◆					◆	
	Moussier's Redstart	<i>Phoenicurus moussieri</i>	◆	◆	◆	◆	◆	◆	◆	
	Black Wheatear	<i>Oenanthe leucura</i>		◆		◆		◆	◆	◆
	Blue Rock Thrush	<i>Monticola solitarius</i>						◆	◆	
	Stonechat	<i>Saxicola torquata</i>	◆	◆	◆		◆	◆	◆	◆
	Robin	<i>Erithacus rubecula</i>							◆	
Family Turdidae (Thrushes)										
	Blackbird	<i>Turdus merula</i>	◆	◆	◆	◆	◆	◆	◆	◆
Family Sylviidae (Sylviid Warblers)										
	Blackcap	<i>Sylvia atricapilla</i>	◆		◆					
	Sardinian Warbler	<i>Sylvia melanocephala</i>	◆	◆	◆	◆	◆	◆	◆	◆
	Tristram's Warbler	<i>Sylvia deserticola</i>							◆	
Family Phylloscopidae (Leaf Warblers)										
	Common Chiffchaff	<i>Phylloscopus collybita</i>	◆	◆	◆	◆	◆	◆	◆	◆
Family Cisticolidae (Cisticolas)										
	Zitting Cisticola	<i>Cisticola juncidis</i>					◆			
Family Paridae (Tits)										
	Great Tit	<i>Parus major</i>		◆	◆	◆			◆	◆
Family Laniidae (Shrikes)										
	Southern Grey Shrike	<i>Lanius meridionalis</i>	◆	◆		◆	◆	◆	◆	
Family Malaconotidae (Tchagras)										
	Black-crowned Tchagra	<i>Tchagra senegalus</i>		◆		◆				
Family Pycnonotidae (Bulbuls)										
	Common Bulbul	<i>Pycnonotus barbatus</i>	◆	◆	◆	◆	◆	◆	◆	◆
Family Corvidae (Crows)										
	Maghreb Magpie	<i>Pica (pica) mauritanica</i>	◆	◆	◆	◆	◆	◆	◆	◆
		The distinctive <i>mauritanica</i> form from North Africa has bare blue skin around the eye, smaller white shoulder patches, a matt black (rather than oily glossy black) tail and seems smaller bodied and longer tailed than the European Magpie, from which it is split by some authorities as <i>Pica mauritanica</i> .								
Family Sturnidae (Starlings)										
	Spotless Starling	<i>Sturnus unicolor</i>		◆	◆	◆	◆	◆	◆	◆
Family Passeridae (Sparrows)										
	Spanish Sparrow	<i>Passer hispaniolensis</i>	◆							
	House Sparrow	<i>Passer domesticus</i>	◆	◆	◆	◆	◆	◆	◆	◆
Family Fringillidae (Finches)										
	North African Chaffinch	<i>Fringilla coelebs africana</i>			◆	◆	◆		◆	◆
	Greenfinch	<i>Carduelis chloris</i>				◆	◆	◆	◆	
	Linnet	<i>Carduelis cannabina</i>		◆			◆	◆		
	Serín	<i>Serinus serinus</i>					◆		◆	
Family Emberizidae (Buntings)										
	House Bunting	<i>Emberiza sahari</i>	◆	◆	◆	◆	◆	◆	◆	◆
	Cirl Bunting	<i>Emberiza cirlus</i>			◆	◆				

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	ENGLISH NAME	SCIENTIFIC NAME	21	22	23	24	25	26	27	28
AMPHIBIANS & REPTILES										
	North African Water Frog	<i>Pelophylax saharica</i>	◆	◆	◆	◆	◆	◆	◆	◆
	Spur-thighed Tortoise	<i>Testudo graeca soussensis</i>					◆	◆		
	Moorish Terrapin	<i>Mauremys leprosa saharica</i>			◆					
	Moorish Gecko	<i>Tarentola mauretanica</i>		◆	◆					
E	Moroccan Lizard-toed Gecko	<i>Saurodactylus brosseti</i>						◆	◆	
E	Moroccan Day Gecko	<i>Quedenfeldtia trachyblepharus</i>							◆	
	Busack's Fringe-toed Lizard	<i>Acanthodactylus (pardalis) busacki</i>		◆				◆		
MAMMALS										
	Dromedary	<i>Camelus dromedarius</i>		◆	◆			◆		◆
	Dorcas Gazelle	<i>Gazella dorcas</i>					◆			
		Currently categorised as Vulnerable by the IUCN, suffering a decline of more than 30% in the last 20 years.								
		Found throughout the Sahel and Sahara, from Morocco to Djibouti and extending up the Red Sea coast into southern Israel. Threatened by over-hunting and loss of habitat through over-grazing.								
	Addax	<i>Addax nasomaculatus</i>					◆			
		Currently categorised as Critically Endangered by the IUCN. Once found throughout the Sahel and Sahara, Addax have suffered from over-hunting and loss of habitat through over-grazing: the total wild population may now be as few as 3 individuals, in the deserts between northern Niger and Chad.								
		70 animals were introduced to the enclosure at Souss Massa NP in the mid-1990s, and the population here probably now numbers around 600 individuals. A second managed population is present in Bou Hedma NP in Tunisia. These two populations are now being used for a re-introduction programme in Tunisia, with others planned for Morocco and the Mali/Mauritanian border.								
	Scimitar-horned Oryx	<i>Oryx dammah</i>					◆			
		Currently categorised as Extinct in the Wild by the IUCN. Once found throughout the Sahara and Sahel, the last wild populations were lost from Chad and Niger during the late 1980s: the last wild animals were seen in 1988.								
		There are managed populations in fenced enclosures in Senegal and Tunisia, but the largest population is in Souss Massa NP, where around 250 animals can be found in the Arrouais enclosure. A reintroduction project is currently underway for the 78,000 km ² Ouadi Rimé-Ouadi Achim Game Reserve in central Chad, where the first wild calf for at least 30 years was born in late 2016.								
		In common with the other antelopes, threatened by over-hunting and loss of habitat through over-grazing.								
	Barbary Ground Squirrel	<i>Atlantoxerus getulus</i>						◆	◆	
	North African Elephant Shrew	<i>Elephantulus rozeti</i>							◆	
		Also known as a sengi, this is not a true shrew and is instead in the Macroscelididae family from the monophyletic order Macroscelidea. This is the only elephant shrew to be found north of the Sahara.								

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	ENGLISH NAME	LATIN NAME	21	22	23	24	25	26	27	28
LEPIDOPTERA - Butterflies										
Family Pieridae (Whites)										
	Greenish Black-tip	<i>Euchloe charlonia</i>		◆	◆	◆	◆			
	Small White	<i>Pieris rapae mauretanica</i>			◆					
	Bath White	<i>Pontia daplidice</i>				◆				
Family Nymphalidae (Admirals and Fritillaries)										
	Painted Lady	<i>Vanessa cardui</i>	◆	◆	◆	◆	◆	◆	◆	◆
Family Lycaenidae (Blues and Coppers)										
	African Grass Blue	<i>Zizeeria knysna</i>	◆			◆	◆			
LEPIDOPTERA - Moths										
	Hummingbird Hawk-moth	<i>Macroglossum stellarum</i>	23 - at the palmery lunch stop							
	a tiger moth	<i>Amata mogadorensis</i>	23 - at the hotel in Taroudant							
	Bordered Straw	<i>Heliothis peltigera</i>	25 - captured during dinner							
ODONATA - Dragonflies and Damselflies										
	Vagrant Emperor	<i>Anax ephippiger</i>	25 - Souss Massa National Park							
	Epaulet Skimmer	<i>Orthetrum chrysostigma</i>	23 - in the palmery							
HEMIPTERA - True bugs										
	Oleander Seedbug	<i>Caenocoris nerii</i>	24 - on Oleander in the village							
SCORPIONES - Scorpions										
	We found at least two species of Scorpion during the week: the smaller, yellow <i>Buthus sp.</i> and a single small, juvenile black <i>Hottentotta gentili</i> .									
	And of course, who could forget the 8 Pill Woodlice on our 'night safari'...									



Above: African Grass Blue, Epaulet Skimmer and Moroccan Lizard-toed Gecko