N&S Wildlife & Walking Holidays

Honeyguide

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Morocco 14 – 21 March 2019

Participants

John and Jan Croft John Rumpus and Rosemary Macdonald Kate Macmillan Michael and Carolyn Greer Walker Paul and Hilary Wordley Katherine Montgomery
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Leaders

Richard Hobbs, Sally Ward and Chris Gibson.
Report by Chris Gibson, plant list by Richard Hobbs.
Photos by Chris, Richard and Sally – by Chris if there is no photocredit.
Cover, top row: Moussier's redstart; the only cloud of the week.
Middle row: Fagonia cretica; olives on display in Agadir souk (RH); Catananche arenaria.
Bottom row: Black wheatear; Moroccan orange-tip ssp. androgyne.



We stayed at Atlas Kasbah Ecolodge http://atlaskasbah.com/en/, above. Below – attired traditionally on the last evening (SW).



This holiday, as for every Honeyguide holiday, also puts something into conservation in our host country by way of a contribution to the wildlife that we enjoyed. The conservation contribution of £40 per person was supplemented by Gift Aid and we were able to give £680 to GREPOM/BirdLife Morocco – Groupe de Recherche pour la Protection des Oiseaux au Maroc. This is towards the cost of wardens to safeguard nesting bald ibises. Khadija Bourass, the Executive director of GREPOM/ Birdlife Maroc, sent the following acknowledgement:

"We truly would like to thank you for your interest in our common cause of wildlife conservation. We appreciate your thoughtful contribution for our project for the Bald Ibis in the Souss-Massa National Park Our actions in favor of the conservation of the Bald Ibis in the Souss-Massa National Park could not be so effective without your various supports."

As at the end of March 2019, the total for all conservation contributions through Honeyguide since 1991 was £129,542.

DAILY DIARY

Thursday 14 March: the way there, and local walk

Our very early flight from a blustery, wet Gatwick was delayed for a couple of hours after a medical emergency on board. Fortunately, it wasn't one of our group, and equally fortunately for the victim it was just as we were taxiing down to the runway. This meant a return to the stand, where the passenger was treated by paramedics before being taken off the plane; the crew then had to check all cabin baggage to make sure all was well; and after that the wait for a new take-off slot but the EasyJet staff deserve fulsome praise for their calm professionalism.

The pilot managed to put his foot down a bit on the flight, so in the end we arrived in a very hot and sunny Agadir at lunchtime, only an hour behind schedule. Passport Control seemed to take an age – we were all raring to go – but once through, it was only a short transfer to our hilltop destination, the Atlas Kasbah Ecolodge, passing spotless starlings, hoopoes and Maghreb magpies, as we entered the foothills of the Atlas Mountains.

Welcomed by Hassan, the owner of Atlas Kasbah who designed and built it only a few years ago, belying its historic appearance, we were ushered straight into the first of many wonderful meals as the bags magically found their way to our rooms. As became the norm, our meal was created largely from vegetables and fruit, insofar as possible sourced from the garden, and from the high terrace we were able to begin our week of wildlife-watching, with common bulbuls in the bushes, a swallowtail butterfly, and fly-over Barbary falcon and yellow-legged gulls. After some 18 months without meaningful rain, the drought was beginning to take its toll on the landscape. At a time when the rolling foothills of the Atlas Mountains should be ablaze with a colourful array of wild flowers, from spring bulbs to poppies and other annuals, it was a scene of parched aridity, the bones of the land clearly visible through its hide. Almost the only green came from deep-rooted argan trees, so important to the local economy, naturally studded evenly across the stony plateaux and slopes in an attempt to make best use of what rainfall or condensation comes their way.



Argan trees in the parched landscape.

After a while to unpack, we set out on our first local walk, starting in the relative lushness of the garden: a verdancy due in part to the exclusion of browsing goats, but especially due to efforts of Atlas Kasbah residents, as translated through the biofiltration water purification plant, complete with its thriving population of Saharan marsh frogs! Richard introduced all to many unfamiliar plants, some (such as Casuarina, Acacia, Albizia, Jacaranda and Myoporum) originating from other subtropical parts of the world, others natives, like the ubiquitous argan, a Moroccan endemic, in fruit and flower at the same time. An almost-black Moorish gecko rested in the shadows on one of the trunks, presumably at risk of overheating if it came out into the intense sunlight.

Out into the countryside beyond the garden wall, it was as dry as we feared, and the flowers consequently missing or sparse or stunted. Large yellow rest-harrow was the most obvious, its gummy leaves probably helping to deter all but the hungriest goats. The endemic knapweed-a-like *Volutaria maroccana* and orange *Cladanthus arabicus* were in flower, but only closely appressed to the ground, and the hedge was made up of zig-zag stemmed *Zizyphus lotus*, wispy *Ephedra altissima*, and *Periploca angustifolia*, the last with its distinctive 'Dali-moustache' fruits.







Large yellow restharrow; Volutaria maroccana; Cladanthus arabicus.

Almost the first insect we saw, nectaring on the *Bougainvillea*, was a hummingbird hawk-moth, but surprisingly this was the only one of the whole week. Meanwhile among the ornamental lavenders and rosemary, a few butterflies flitting around revealed themselves to be long-tailed and Lang's short-tailed blues, and we found Egyptian locusts, the segmented egg case of a praying mantis and the three-dimensional web of a cage-web spider, the spiky female clinging to the bottom end of the long, twisted, silken egg-sac. Bulbuls burbled in pairs and trios from many a tree, a house bunting sang from the main building, and Moussier's redstarts flicked brightly between stone walls and tree trunks: soon to become familiar, probably two pairs were breeding in the garden. These archetypal North African birds, which rarely make it across the Mediterranean, mingled with much more familiar fare – numerous house sparrows, blackbirds, serins, African-race chaffinches (like ours, but as though painted by a colour-blind artist) and a couple of robins, the last probably northbound migrants.





Bulbuls and house bunting, common birds in the hotel garden.

Moving from the road onto the camel drove road between the Atlas and the Sahara, 'crested' larks kept us on our toes – eventually we obtained views of the underwings and/or heard the distinctive calls and songs: it appeared that all those on the stony pasture were Theklas while those on the small cultivated plots were cresteds. A pair of southern grey shrikes stood sentinel on the argans, and several flurries of bee-eaters swept over, although good views for most had to wait a couple of days. The track itself was geologically interesting, being essentially a bed of limestone riven by mineral seams running in every direction, and indication of the intense pressures of continental collisions.

Soon enough the heat and early start caught up with us, and it was back home via a singing male rock bunting, and then two of the invertebrates of the week, a mating pair of African nine-spotted moths, showing their red-and-black hooped abdomens to advantage.

And so to dinner, once again a superb meal, and before too long, welcome sleep, with a backdrop of trilling tree-crickets.

Friday 15 March: local walk to Tighanimine El Baz

Dawn broke clear and calm, with another very hot day in prospect. Our first experience of breakfast at the Atlas Kasbah was interesting, with the usual range of home-made bread and spreads, cardamom-spiced coffee, scrambled eggs and somewhat bizarrely, vegetable soup.... but by the end of the week the breakfast soup, sometimes with barley, others corn-meal, had become a favourite with several in the group.

The morning's walk took us to the local village of Tighanimine El Baz, not especially attractive and rather litter-strewn, although the evidence of new shops opening suggest its fortunes may be rising. In part this could be due to the women's argan cooperative, which we were able to visit to watch the manual process of extracting the oil, for use in both cooking and cosmetics. And to buy their produce, contributing directly to the local economy, and thus to the conservation of argan groves, at risk from charcoal production.

The road verges produced their usual selection of interesting plants: Launaea arborescens, like photosynthetic barbed-wire; a dodder Cuscuta approximata, parasitic upon it; and the cupid's dart Catananche arenaria, the palest of yellow ray florets surrounding a brooding, velvety purple flower centre. Less attractive perhaps, but with very distinctive fruits were the docks Emex spinosa and Rumex vesicarius, and spiny cocklebur.

House buntings were singing from seemingly every building, along with numerous spotless starlings. A pair of black wheatears was good to see, along with a distant Bonelli's eagle (highly appropriate as the village name translates as 'Valley of the Eagle'), but most surprising was a young male lesser kestrel which circled the cooperative building a couple of times, before moving on. Not known to breed in the south of the country, this was presumably a migrant moving through from the sub-Saharan wintering grounds.

From an untidy patch in the village arose an almost deafening hum of honeybees, feeding on a profusely flowering patch of Roman nettles, perhaps indicative of the lack of other forage plants in the droughty conditions. And close (but not too close: those stinging hairs are vicious!) examination of the nettle leaves revealed two praying mantis nymphs, one first instar, brown and flat, the other a second instar, green and adopting the distinctive curved abdomen. Nearby, a scrambling *Aristolochia* revealed the eggs of Spanish festoon on its leaves.



Roman nettle and first instar praying mantis; oleander seed-bugs.

Down in the dry river, oleander was flowering profusely, each bush supporting a thriving population of the oleander seed-bug *Caenocoris nerii*, at all stages of development from egg to adult. Few creatures can withstand the toxic chemical armoury of oleander, but these bugs can, and presumably (from their warning coloration) sequester the poisons for their own defences. Several red-rumped swallows were feeding around the well and a pair of laughing doves canoodled on a wall, while several Barbary partridges flew noisily out of the scrublands. At this juncture, the group split into two according to fleetness of foot, but for both parties it was head down in the intense heat, seeking to get back to the relative cool of the Kasbah garden. A baby spur-thighed tortoise, Bath white, several brimstones and a Cleopatra were there to welcome our return.

Lunch was as filling and refreshing as we had come to expect, and led naturally to a couple of hours' relaxation, until the heat subsided a little. We then headed down to the camel trail again, hoping to get further than yesterday, now that some of the flowers and birds were becoming more familiar. A small passage of swallows common swifts was presaged by a pair of little swifts, shooting north. Then as we approached the dry river, a subalpine warbler was singing from an argan, and a few Barbary ground-squirrels scurried around a jumble of boulders, although none showed for any length of time. That may



Laughing doves.

have been due to the presence of a little owl among those rocks, even though in reality it probably posed little threat. In fact, the large darkling beetle *Pimelia chrysomeloides* which crossed our path would probably be a more likely prey item...

Returning home via a slightly different road verge, we chanced upon a couple of rock sparrows, and the attractive, compact, purplish flowerheads of *Teucrium capitatum*. Then it was into the Moroccan salon of Atlas Kasbah, where Hassan initiated us into the Berber tea ceremony. This is central to Berber hospitality, and involves green tea, which must be washed with the first, discarded pot of water, one or more herbs or spices, and sugar loaf. We then learned of the importance of bubbles in the tea, achieved with repeated pouring into the glasses and back into the pot.

We spent a relaxed hour with Hassan – the ceremony can take much longer – and learned much about Berber culture, history, language, script and identity, and its somewhat uneasy relationship with its Arab equivalents.

After dinner, a few minutes on the roof as night fell immersed us in the chorus of tree-crickets, Sahara marsh frogs and a distant churring, probably from an African green toad, in the valley. Despite a light veil of cloud, the starscape was impressive, at least away from the skyglow of Agadir, and a pipistrelle bat was detected as it foraged around. But for what? The hotel lights were not drawing in moths or other insects, again perhaps a symptom of the drought.

Saturday 16 March: Tamri and Cap Rhir

A stiff breeze sprang up overnight and was still noticeable as we reassembled in the roof garden for bird watching and listening as dawn broke. The eerie wails of stone-curlews echoed around, then, as light started to return, the rhythmic chirping of bulbul song from every direction, similar in tone to the daytime burbles but much more regular and structured. And high overhead, first picked up by ear, the dawn flight of bee-eaters, in flocks of fifty, then thirty.

After breakfast, first stop was the supermarket, for some to buy the wherewithal for lunch, but mostly to secure alcoholic accompaniments to our evening meals. It was particularly interesting to note the number of singing house buntings inside the store, at exactly the same time as supermarkets in the UK were being criticised for using anti-bird netting to prevent birds nesting outside their stores, and for seeking lethal control licences to deal with the 'problem' of birds on the inside.....

The coastal drive north of Agadir was rather longer than anticipated: Mohamed was a delightfully careful driver, and there were hordes of speed police along the road. As we approached Tamri, we plunged into a dense bank of sea fret, just thin enough to let us see a few northern bald ibises feeding in the sandy roadside fields. Although access to the famous breeding site was not permitted for fear of disturbance, the warden (whose role is part-funded by Honeyguide conservation contributions from this holiday) was happy to show us to a vantage point away from the breeding cliffs which gave us excellent flight views. And that has to be when these admittedly rather ugly birds look their best! Graceful scimitar-billed aeronauts, rather than vulturine turkeys hunkered down on cliffs in the swirling mist. In fact, we witnessed a single flight of some 75 birds, about one third of the local population, more than a tenth of the entire Moroccan population (which forms the vast bulk of the world population) in just one flock, wheeling across the desert-like perched sand dunes. Although not quite as we had planned, all agreed that it is heartening to see that the conservation of these birds is being taken seriously and the protections applied across the board.





Perched sand dunes at Tamri; northern bald ibises.

Skittering around the sandy and stony ground, no doubt trying to avoid the attention of hungry Ibises, were several examples of the Moroccan fringe-toed lizard *Acanthodactylus margaritae*, a species described as recently as 2017 and found only in the stretch of Atlas coast from here to a few kilometres south of Agadir. Interesting plants included shrubs of *Lycium intricatum*, the umbellifer *Thapsia garganica*, in flower and broadly-winged fruit, and *Frankenia thymifolia*, the largest-flowered sea-heath any of us had ever seen. Sadly, it has not yet been possible to ascertain the identity of a lovely mating pair of moths – they will have to remain simply 'Moroccan pearl moths' for now.

A little to the south, around Cap Rhir, after a picnic lunch at the lighthouse, our attention turned to a habitat that is as rare, if not rarer, than the ibis on a world scale: Macaronesian Euphorbia scrub, known only from the southern coast of Morocco and some of the mid-Atlantic islands, and everywhere threatened by tourism infrastructure and over-development. It is dominated by a series of succulent plants, particularly the cactus-like *Euphorbia officinarum*, the tree-spurge-like *Euphorbia regis-jubae*, and a succulent groundsel *Kleinia anteuphorbia*, its 'dandelion-clock' seed heads revealing its family affiliations.

Thekla larks gave unbeatable, and incontrovertible, views, a couple of hoopoes showed to the front-runners of the group, while a kestrel flew around the lighthouse, quite possibly a breeding site. Down at ground level, and ignoring the painful amount of plastic litter, a pale-shoulder moth rested; other distinctive insects included false mallow skipper, a couple of red leaf beetles with black spots *Cryptocephalus rugicollis* and *Lachnaia lucidipennis*, and best of all a fly-around two-tailed pasha.

The final stop of the day was in the small fishing/tourist village of Taghazout, for drinks and ice-creams, with views over the beach where a large flock of yellow-legged gulls and just a very few lesser black-backed gulls were roosting. Then heading back through the outskirts of Agadir, a party of eight white storks flew over the bus, perhaps surprisingly the only ones of the week.

We arrived back at Atlas Kasbah to the usual herb tea welcome, with time for Richard to hold a succulents' masterclass in the roof garden before we assembled for our first debrief/listing session of the week on the upper terrace, the air around us filled with the rainbow glints and liquid trills of bee-eaters. Dinner was wonderful, a fish tagine using conger eel, a culinary 'first' for most, and noticeably relaxed as the first alcohol of the week helped to wash it down!

Sunday 17 March: Souss-Massa National Park

A very mild night saw the development of a deep fog bank over Agadir, and some speculation about the weather forecast, although in the event it soon burned off and was as sunny as all the rest of the days, albeit a shade cooler because of a welcome onshore breeze when we approached the Souss-Massa National Park, a large river at either end with flatlands in between. Heading for the Massa River, the southern boundary of the park entailed driving through the rather uninspiring landscape, typical of deltas worldwide, low-rise, often impermanent settlements, always at risk from flooding. Neither sea nor river nor land, they are places of psychogeographic tension, which reflects the ecological tension, between salt and freshwater, windblown sand and water-deposited alluvial plains.

Dropping down from the low limestone hills to the Massa river valley was a delightful walk: little egrets, greenshank and wood sandpiper on the river, with bee-eaters posing well, their jewel-like properties if anything enhanced by the shimmering heat-haze, plain tiger butterfly and nosed grasshopper, lots of the pink-flowered *Fagonia cretica*, an attractive knapweed *Centaurea sphaerocephala* and two species of *Mesembryanthemum*. Plus two very exciting parasitic plants: *Striga gesnerioides* on euphorbia, and the remarkable, phallic red dog-turd *Cynomorium coccineum*, sprouting fungus-like from the ground amongst the shrubby sea-blite, its presumed host.





Two parasitic plants: Striga gesnerioides and Cynomorium coccineum.

On the flood plain, tamarisk and *Nitraria* took over as the dominant shrubs. A few melodious warblers skulked among them, while in complete contrast male stonechat and Moussier's redstarts showed themselves side by side: the same colour palette, but painted by different artists.

Back to the bus and some shade for lunch, a very pleasant location serenaded by the mocking calls of laughing doves, we then headed back across the delta, with a short comfort and tea stop on the way. At the northern end of the national park, near the mouth of the Souss, despite Sunday afternoon disturbance, we found our largest concentration of water birds, including an array of waders, bound for northern shores, Sandwich terns, white-breasted *maroccanus*-form cormorants, a feeding spoonbill, and then at the last gasp as we headed away, some 80 greater flamingos. Or "flaming-o's" as Richard would have them, leading to speculation about the best collective noun. 'An alphabet of flamingos' seemed appropriate, given that almost runic disportment of their legs, in fact not dissimilar to the Berber alphabet! Add to those a sitting zitting cisticola and several interesting plants appressed to the stable shingle, including *Aizoon canariense* and *Forsskaolea tenacissima*.



"Flaming-o's", gulls and waders.

Back at Atlas Kasbah, with an hour before the pre-dinner meeting, many took the opportunity for a cooling swim, enlivened by an aerial display of bee-eaters, lots of common (and a few pallid) swifts, and a fly-over cuckoo.

Monday 18 March: Askoti Gorge

A very short drive of only 6km or so took us up our valley to the village of Askoti. With a local guide, we then took a delightful off-road walk into the gorge, suitably dramatic rocky scenery and the haunt of black wheatears and Barbary ground-squirrels. Although our guide spoke only Berber and Arabic, there were few communication difficulties, and he managed to convey much information about some of the plants Richard found. One such was *Rhus pentaphylla*, in fruit, and recommended by our guide....although from our perspective not a winner! Other new plants included *Rhus trifoliata*, Moroccan acacia *Vachellia gummifera*, and the long-flowered *Thymus maroccana*, its thyme-scented leaves with overtones of lime and eucalyptus. Just below the entrance to the gorge, our guide pointed out a dead snake in the dry riverbed; rather decayed and smelly, but this was long, and probably a Montpelier snake. He also pointed out a scorpion hole, and a ground-squirrel burrow, surrounded by a swathe of nibbled argan nuts.





Algerian skink; Barbary ground-squirrel.

Back at the bus, a patch of *Heliotropium* flowers was attracting butterflies, especially small coppers and Bath whites, all under the watchful eyes of a basking Bibron's agama. However, despite its mini-dragon-like appearance, it didn't remain 'reptile of the week' for long: as we packed away our picnic in an argan grove, with the only real (small) cloud of the week overhead, we disturbed a splendid Algerian skink, a cylindrical 40cm 'snake with legs' that seemed to have been eating tomato ketchup. Messily!

We continued walking homewards for a while, producing our best hoopoe sighting of the week, before the party split, just a few opting to continue walking the final few kilometres, across what should be a great botanical site in more clement conditions, and meeting a Tuareg camel train, up from the Sahara.

Given the relatively early return for most, seeking shade and water, a late afternoon garden bird stroll was in order, producing excellent views of a singing male cirl bunting, and of the frogs in the biofiltration ponds, as well as a large spur-thighed tortoise in the lower garden. And then before dinner, another botanical masterclass from Richard, focusing on the features of some of the garden plants which help assign them to their families.

Tuesday 19 March: local walk to Elmaasa village

The pre-breakfast garden walk produced only the usual suspects, with no sign of migratory turn-over of birds, but when those usual suspects include Moussier's redstarts and parties of bee-eaters, it helped to kick off another day in the sun, once the dense fog which rolled in over breakfast had burned back.

The morning walk took us along relatively quiet roads to the neighbouring hilltop village of Elmaasa. A woodchat shrike perched on some roadside bushes, giving good views, as did a pair of Maghreb magpies, showing clearly the distinctive shiny blue patch behind their eyes, and black wheatears mingling with house buntings around the village. The wayside plants included henbane, a long and narrow-leaved madder *Rubia agostinhoi* and another cherry-pie, *Heliotropium crispum* together with large thickets of prickly-pear (covered in cochineal bug fluff), one of which supported a veritable housing estate of cage-web spiders, the web several metres long and two high, with ten or more of spiders in occupation. And the road-verge rest-harrows were home to numerous red-and-black oil-beetles *Hycleus* sp.



Buying tangerines in Elmaasa (SW).

Although still too rubbish-strewn for our liking, Elmaasa was apparently more thriving than some of the other local villages. Our visit coincided with the arrival of the peripatetic tangerine seller, so a crowd was already forming. We soon attracted a gaggle of village children who then walked with us, scurrying off every so often to find a new flower to show the group. And we reciprocated with beetles, specifically the large, lumbering darkling beetle *Pimelia chrysomeloides*. The smaller girls initially shrank away from handling it, but when first one of the braver boys and then one of the older girls took their cue from us and the young ones started to follow suit, we felt we might just have left a little bit of Honeyguide stardust behind us....

Back at the ranch for lunch, and a relaxing afternoon on the terrace, watching orange-headed mammoth wasps *Scolia bidens* and painted ladies feeding at false acacia on the terrace. Most then took advantage of an optional extra, a two-hour course in Moroccan cookery, where we made our beef tagines for the evening meal, as well as the starter and sweet, and also flatbreads in the outside oven. Very tasty!





Terracotta tagines used in the cookery course; group members in costume (RH).

Wednesday 20 March: Paradise Valley and Agadir Souk

Inland from the coast road north of Agadir, penetrating the westernmost outpost of the High Atlas, our destination today was Paradise Valley....which didn't really live up to its name: great scenery, yes, but with added, major, noisy, dusty road improvement works, the ever-present scourge of plastic litter, and precious little water in the river, even by the oasis and its date palm grove.

But we persevered, and watched grey wagtails by the river with basking Sahara pond terrapins and large pincertail dragonflies. House martins, little swift, blackcap and chiffchaff were all presumably migrants, rock dove and (fleetingly) blue rock thrush residents, along with a pair of Bonelli's eagles overhead. Two-tailed pasha and Moroccan orange-tip butterflies (the latter of the southern Moroccan form *androgyne*, with reduced underwing markings) were also much appreciated, along with several interesting plants, including *Hypericum aegypticum* in the river-bed, and the wonderfully-hairy fleabane *Pulicaria mauritanica*, *Trachelium caeruleum* and maidenhair fern on the gorge walls.

A mint tea-break (sweetened with honey, this being in the Honey Café) on the way back, high in the open *Tetracinus* forest also revealed *Limonium lobatum* and the subtly beautiful borage relative *Trichodesma calcaratum*, an absolute magnet for foraging insects. Several times camels were spotted from the bus, mostly in trains with handlers, but a mother and calf close to the road seemed to be 'free range'.



Dromedary camel and calf, spotted from the bus.

Back to Agadir, and an hour in the souk was enough retail therapy time for folks to buy their spices, dates and other holiday mementos, although it was a pity our local guide clearly had his own agenda, getting quite shirty with those of us who went off piste and bought from vendors he had not introduced us to.....





Colourful mounds of produce and spices in the souk (RH).

And so back to Atlas Kasbah and our last evening surprise, a visit from a local traditional music and dance combo, who brought enough costumes for us all, and ensured that active participation was not optional! A great fun end to a wonderful, varied week, rich in experiences as well as wildlife, despite the sometimes challenging weather conditions.

Thursday 21 March: the way home...

Before dawn, a red-necked nightjar was singing not too far from the lodge, but being the last morning, there was no opportunity to seek it out for more to hear. After a relatively leisurely start, we left Atlas Kasbah with all the staff lined up outside to wave us off. Twenty minutes to the airport, passing road verges with the yellow broomrape *Cistanche phelypaea* (the botanising never stops!), and before long we were homeward bound.

LISTS

BIRDS Cormorant Several in the Souss; also Cap Rhir Grey heron One, in the Souss Cattle egret Several parties in fields while travelling Little egret Singles at Cap Rhir and Souss River; 10 by the Massa Eight over Agadir, on just one day White stork Northern bald ibis Total of about 80 birds around Tamri One feeding in the Souss River Spoonbill Greater flamingo 80 in the Souss River Mallard A few birds in flight over the Souss Bonelli's eagle One distantly over Tighanimine El Baz; two low over Paradise Valley gorge Sparrowhawk Singles over Tighanimine El Baz and Askoti Gorge Kestrel Widespread Lesser kestrel One at Tighanimine El Baz Barbary falcon Singles over Atlas Kasbah and Tighanimine El Baz Barbary partridge Pairs at Tighanimine El Baz and near the Massa River Oystercatcher Around ten by the Souss Heard at night around Atlas Kasbah Stone-curlew Five birds by the Souss, one in breeding plumage Grey plover Kentish plover Three in flight low over the Souss One with curlews by the Souss Whimbrel About 20 roosting by the Souss Curlew Redshank Three by the Souss Singles by the Massa and the Souss Greenshank Wood sandpiper One by the Massa Lesser black-backed gull Two at Taghazout; a few birds on the Souss Yellow-legged gull Widespread; big concentrations on the Souss and the beach at Taghazout Black-headed gull Two by the Souss River Sandwich tern Around 40 in the Souss, roosting and feeding Rock dove Paradise Valley gorge Feral pigeon Widespread, especially around settlements Woodpigeon Seen regularly, usually flying north, probably migrating Collared dove Widespread Laughing dove Pairs at Atlas Kasbah, Tighanimine El Baz and by the Massa Common cuckoo One over Atlas Kasbah Red-necked nightjar Singing close to Atlas Kasbah, just before dawn, one or two nights Scops owl One reported calling on one night at Atlas Kasbah One close to Atlas Kasbah Little owl Common swift Seen most days, with some concentrated movements One loose group, mostly pallids, during the late afternoon movement over Atlas Pallid swift Kasbah on 17 March Two north over Atlas Kasbah; one in Paradise Valley Little swift European bee-eater Widespread and numerous Seen frequently while travelling; also at Cap Rhir, Askoti and on one morning only, Hoopoe Atlas Kasbah Crested lark Widespread, though less numerous than Theklas generally; often on cultivated ground Thekla lark Widespread, often on rocky ground Barn swallow Seen daily, though never numerous Seen at Tighanimine El Baz, Askoti Gorge and Paradise Valley Red-rumped swallow Very small numbers, Askoti Gorge and Paradise Valley only House martin White wagtail Cap Rhir and Paradise Valley, though not seen well enough to ascertain subspecies Grey wagtail Several pairs in Paradise Valley Common almost everywhere; an unassuming bird to look at, but providing the Common bulbul soundtrack for the holiday Nightingale One singing half-heartedly at Atlas Kasbah on one night only Robin Several around Atlas Kasbah, although only on the first two days Moussier's redstart Seen frequently in many places; two pairs in the Atlas Kasbah garden Stonechat Pair by the Massa River Black wheatear Tighanimine El Baz, Askoti Gorge and Elmaasa; also spotted while travelling Blue rock thrush Paradise Valley Blackbird Common; along with bulbuls, one of the main soloists of Atlas Kasbah dawn chorus Singing by the Massa River Cetti's warbler Tamri, and by both Massa and Souss Rivers Zitting cisticola Subalpine warbler Close to Atlas Kasbah and Elamaasa Common and widespread; several pairs around Atlas Kasbah Sardinian warbler Blackcap One in Paradise Valley Chiffchaff One in Paradise Valley Western olivaceous warbler One singing one morning at Atlas Kasbah Melodious warbler Once in Atlas Kasbah garden; pair by the Massa river Common in and around Atlas Kasbah, including recently-fledged young; also Askoti

Gorge and Paradise Valley

Great tit

Black-crowned tchagra	One singing one afternoon in Atlas Kasbah garden
Southern grey shrike	Pair close to Atlas Kasbah; frequently seen while travelling
Woodchat shrike	One near Elmaasa; occasionally seen while travelling
Maghreb magpie	Widespread; since 2018 treated as a full species in its own right, rather than as the North African race of the Eurasian magpie
Spotless starling	Frequent, especially around villages
House sparrow	Widespread and abundant, especially around settlements
Rock sparrow	Two close to Atlas Kasbah
Chaffinch	Africana race birds in several places; daily at Atlas Kasbah
Serin	Daily at Atlas Kasbah; smaller numbers elsewhere
Greenfinch	Almost daily around Atlas Kasbah
Goldfinch	Small flocks around Atlas Kasbah on a couple of days
Linnet	Small flocks by Massa River and at Askoti
Cirl bunting	Pair at Atlas Kasbah; also in Askoti Gorge, Paradise Valley and by the Massa
Rock bunting	Singing male close to Atlas Kasbah on one day; also Askoti Gorge
House bunting	Common; a feature of all built-up areas
Corn bunting	Several singing from the flood-plain of the Massa River

MAMMALS					
Barbary ground-squirrel Ruppell's		fox (presumed,	Pipstrelle bat sp.		Dromedary camel (presumably
Barbary ground-squirer	heard)		(echolocated at 42KH	lz)	domesticated)
REPTILES & AMPHIBIANS					
Sahara marsh frog Spur-thighed tor		toise	Alge	rian skink	
African green toad (possible, heard) Montpelier snak		e (dead)	Bibr	on's agama	
Sahara pond terrapin Moroccan fringe-		-toed lizard	Moo	rish gecko	



Above: Bibron's agama.
Below: Moroccan fringe-toed lizard.



Above: Sahara marsh frogs mating. Below: Sahara pond terrapins.





BUTTERFLIES			
Swallowtail	Moroccan orange-tip	Lang's short-tailed blue	Painted lady
Spanish festoon (eggs)	Clouded yellow	Common blue	Wall brown
Large white	Brimstone	Allard's blue	Southern speckled wood
Small white	Cleopatra	Plain tiger	Spanish gatekeeper
Bath white	Small copper	Two-tailed pasha	False mallow skipper
Greenish black-tip	Long-tailed blue	Red admiral	

OTHER INVERTEBRATES		
Hummingbird hawk-moth Macroglossum stellatarum	A red-and-black seed bug Spilostethus pandurus	
Pale shoulder moth Acontia lucida	Another red-and-black seed bug Graptostethus servus	
Small marbled moth Eublemma parva	Oleander seed-bug Caenocoris nerii	
Coppery taupe moth Charissa mucidaria	A carpet beetle, feeding on coriander flowers Anthrenus	
Double-striped pug moth Gymnoscelis rufofasciata	goliath	
African nine-spotted moth Amata Alicia	Garden chafer Phyllopertha horticola	
Common plume-moth Emmelina monodactyla	Spotted flower-chafer Oxythrea funesta	
A micro-moth <i>Metasia cuencalis</i>	Hairy flower-chafer Tropinota hirta	
Bee moth Aphomia sociella	A red leaf beetle with black spots Cryptocephalus rugicollis	
Lesser emperor dragonfly Anax parthenope	Another red leaf beetle with black spots Lachnaia lucidipennis	
Large pincertail dragonfly Onychogomphus uncatus	Seven-spot ladybird Coccinella septempunctatum	
Epaulet skimmer dragonfly Orthetrum chrysostigma	A red-and-black oil-beetle <i>Hycleus/Mylabris</i> sp.	
Nosed grasshopper Acrida ungarica	Darkling beetle Pimelia chrysomeloides	
Orange-winged grasshopper Oedipoda sp.	Mediterranean fruit-fly Ceratitis capitata	
Egyptian locust Anacridium aegyptiacum	A stripy tachinid fly <i>Trigonospila transvittata</i>	
Tree-cricket Oecanthus pellucens	Honeybee Apis mellifera	
Praying mantis sp.	A cuckoo bee Thyreus histrionicus	
Woolly aphid on olive <i>Eriosoma</i> sp.	Paper wasp <i>Polistes</i> sp.	
Cochineal bug Dactylopius coccus	Orange-headed mammoth-wasp Megascolia bidens	
Fire-bug Pyrrhocoris apterus	Cage-web spider Cyrtophora citricola	







A red and black oil beetle; African nine-spotted moths mating; Orange-headed mammoth-wasp.

PLANTS AROUND HOTEL AND GARDEN

Ephedraceae		
Ephedra altissima	a joint-pine	
Casuarinaceae		
Casuarina equisetiforme an Australian conifer		
Amary	llidaceae	
Pancratium foetidum	a sand-daffodil, lvs only	
Poa	aceae	
Lamarckia aurea	Golden dog's-tail grass	
Aspara	agaceae	
Asphodelus fistulosus	a small white asphodel	
Plumba	ginaceae	
Limonium sinuatum	Statice, a sea-lavender	
Caryop	hyllaceae	
Spergularia media	a spurrey	
Fab	aceae	
Ononis viscosa	a sticky yellow restharrow	
Ononis natrix	Large yellow restharrow	
Acacia longifolia	Long-leaved wattle	
Albizia sp.	Albizia	
Melilotis albus	White melilot	
Rham	naceae	
Zizyphus lotus	Zizyphus	
Zygophyllaceae		
Fagonia cretica	Fagonia	
Resedaceae		
Reseda luteola	Weld	
Brassicaceae		
Eruca sativa	Wild rocket	
	caceae	
Punica granatum	Pomegranate	

Oleaceae		
Olea europaea	Olive	
Malva	aceae	
Hibiscus rosa-sinensis	a red hibiscus	
Sapot	aceae	
Argania spinosa	Argan tree	
Аросуі	naceae	
Periploca angustifolia	a twin-fruited silkweed	
Boragii	naceae	
Echium angustifolium	a soft red bugloss	
Heliotropium europaeum	a cherry-pie	
Soland	aceae	
Nicotiana glauca	Tree tobacco	
Plantag	inaceae	
Myoporum laetum	Myoporum	
Convolv	rulaceae	
Convolvulus althaeoides	a pretty pink bindweed	
Ipomoea batatas	Sweet potato	
Bignon	iaceae	
Jacaranda mimosifolia	Jacaranda	
Lamiaceae		
Lavendula dentata	a lavender	
Asteraceae		
Cladanthus arabicus	a fine leaved golden daisy	
Volutaria maroccana	a knapweed relative	
Euryops evansii	a S. African yellow daisy	
Pallenis spinosa	a pale yellow daisy with spiny bracts	
Scolymus hispanicus	Spanish oyster plant	

TIGHANIMINE EL BAZ

Asparagaceae		
Asparagus acutifolius	a spiny asparagus	
1	Typhaceae	
Typha domingensis	a reedmace (bulrush)	
,	luncaceae	
Juncus acutus	Sharp rush	
	Poaceae	
Arundo donax	the largest grass in the world	
Aris	tolochiaceae	
Aristolochia baetica	a birthwort	
U	<i>Irticaceae</i>	
Urtica pilulifera	Roman nettle	
Po	lygonaceae	
Emex spinosa	a spiny dock	
Rumex vesicarius	Bladder dock	
Cactaceae		
Opuntia ficus-indica	a prickly pear	
Geraniaceae		
Erodium cicutarium	Common stork's bill	
Euphorbiaceae		
Acylypha wilksiana	a bronze-leaved ornamental	

Fabaceae			
Ceratonia siliqua	Carob		
Rha	amnaceae		
Rhamnus lycioides	a small-leaved buckthorn		
Re	sedacaea		
Reseda alba	White mignonette		
Арс	ocynaceae		
Nerium oleander	Oleander		
Bor	aginaceae		
Echium horridum	a red bugloss		
Lamiaceae			
Lavendula multifida	a lavender		
Teucrium capitatum	a sage		
Conv	Convolvulaceae		
Cuscuta approximata	a dodder, parasitic on		
Cuscuta approximata	Launaea		
Asteraceae			
Volutaria maroccana	a knapweed relative		
Catananche arenaria	a white Cupid's-dart		
Launaea arborescens	a yellow wire-netting bush		
Xanthium spinosum	Spiny cocklebur		

CAP RHIR AND TAMRI

Frankeniaceae			
Frankenia thymifolia	a large-flowered sea-heath		
Frankenia laevis	Sea-heath		
Plum	baginaceae		
Limonium sinuatum	Statice		
Caryo	ophyllaceae		
Paronychia argentea	Silver bracts		
Euphorbiaceae			
Euphorbia officinarum	a spiny spurge		
Franksakis assis iakss	a shrubby, much-branched		
Euphorbia regis-jubae	spurge		
Fabaceae			
Lotus cytisoides	a bird's foot trefoil		
Brassicaceae			
Malcomia littorea	a stock relative		
Solanaceae			
Lycium intricatum	a Duke of Argyll's tea plant		

Orobanchaceae		
Cistanche phelypaea	a large yellow broomrape relative (through bus window)	
A	piaceae	
Thapsia garganica	a yellow carrot relative	
Pseudorlaya miniscula	a small, white carrot relative	
Asteraceae		
Anacyclus radiata	a succulent-leaved yellow chamomile	
Kleinia anteuphorbia	a very succulent daisy	
Reichardia tingitana	a dark-centred dandelion relative	
Calendula aegypticum	a small pot marigold	
Waironia saharae	a succulent shrub	

SOUSS- MASSA NATIONAL PARK

Poaceae		
Phragmites australis Common reed		
Anacardiaceae		
Pistacia atlanticus	a pistachio nut relative	
Ui	rticaceae	
Forsskaolea tenacissima	a nettle relative	
Chei	nopdiaceae	
Beta sp.	Beet	
Suaeda iffniensis	a sea-blite	
Salsola oppositifolia	a saltwort	
Arthrocnemum	a perennial	
macrostachyum	samphire/glasswort	
A	izoaceae	
Aizoon canariense	Aizoon	
Mesembryanthemum	a wet and fleshy white-	
crystallinum	flowered Livingstone-daisy	
Mesembryanthemum	a small pale yellow	
nodiflorum	Livingstone-daisy	
Carpobrotus	Hottentot fig	
achanaciformis		
Zygophyllaceae		
Fagonia cretica	Fagonia	

Frankeniaceae		
Frankenia laevis	Sea-heath	
Frankenia boisseri	a sea-heath	
Tan	naricaceae	
Tamarix sp.	a tamarisk	
Balai	nphoraceae	
Cynomorium	Maltese fungus or red dog-	
coccineum	turd – a phallic parasite	
Nit	rariaceae	
Nitraria retusa	a white-flowered shrub	
Ge	raniaceae	
Erodium hesperium a stork's bill		
Plan	taginaceae	
Kickxia sagittata	a fluellen	
Orobanchaceae		
Striga gesnerioides	a parasite of Euphorbia	
Asteraceae		
Pallenis spinosa	a spiny pale yellow daisy	
Ismelia versicolor	a yellow daisy bush	
Asteriscus sp.	a yellow daisy bush	
Centaurea sphaerocephala	a pink knapweed	

ASKOTI GORGE

Aspara	gaceae	
Asphodelus fistulosus	a small white asphodel	
Asphodelus aestivum	a large white asphodel	
Smilacaceae		
Smilax aspera	Smilax	
Anacardiaceae		
Rhus trifoliata	a sumach	
Rhus pentaphylla	a sumach, with edible	
	fruits	
Pistacia atlanticus	a pistachio nut relative	
Capparaceae		
Cpaparis spinosa	Caper	
Arecaceae		
Phoenix dactylifera	Date palm	
Caryophyllaceae		
Herniaria hirsuta	a rupturewort	

Fabaceae		
Vachellia gummifera	Moroccan acacia	
Lamiaceae		
Thymus maroccana	a long-flowered thyme	
Scrophulariaceae		
Verbascum sp.	a mullein	
Verbascum sinuatum	a wavy-edged mullein	
Plantaginaceae		
Plantago afra	a branched plantain	
Kickxia sagittata	a fluellen	
Araliaceae		
Hedera algeriensis	an ivy	
Cucurbitaceae		
Bryonia dioica	White bryony	
Asteraceae		
Dittrichia viscosa	a stink aster	

ELMAASA VILLAGE

Agavaceae		
Agave sisalana	Sisal	
Aizoaceae		
Aizoon canariense	Aizoon	
Mesembryanthemum	a white Livingstone-	
crystallinum	daisy	
Cactaceae		
Opuntia ficus-indica	a large-fruited prickly	
	pear	
Opuntia delenii	a purple-fruited prickly	
	pear	
Solanaceae		
Solanum heterophyllum	Orange-fruited	
	nightshade	
Hyoscyamus albus	Henbane	

Boraginaceae			
Heliotropium crispum	a cherry-pie		
Echium horridum	a red bugloss		
Lan	Lamiaceae		
Ballota hirsuta	a black-horehound		
Marrubium vulgare	White-horehound		
Rubiaceae			
Rubia agostinhoi	a madder		
Asteraceae			
Anvillea garcinii	a yellow daisy bush		
Cladanthus arabicus	orange daisy, feathery leaves		
Bidens auriantiaca	a bur marigold		
Volutaria maroccana	a knapweed relative		
Centaurea solstitialis	Yellow star-thistle		

PARADISE VALLEY

Adian	taceae	
Adiantum capillus- veneris	Maidenhair fern	
Cupressaceae		
Tetracinus declinata	a juniper relative	
Smilacaceae		
Smilax aspera	Smilax	
Arecaceae		
Phoenix dactylifera	Date palm	
Polygonaceae		
Rumex induratus	Buckler dock	
Papaveraceae		
Papaver dubium	Long-headed poppy	
Plumbaginaceae		
Limonium lobatum	a sea-lavender	
Hyperi	caceae	
Hypericum aegypticum	a shrubby St. John's wort	
Primulaceae		
Samolus valerandi	Brookweed	
Anagallis arvensis	Blue pimpernel	
Asclepiadaceae		
Asclepias curassavica	Milkweed	
Euphorbiaceae		
Euphorbia helioscopa	Sun spurge	
Euphorbia offiicinarum	a spiny spurge	
Ricinus communis	Caster-oil plant	

aceae		
a tree with many small		
leaflets		
a shrubby scorpion-vetch		
a scorpion-vetch		
Bladder vetch		
a bird's foot trefoil		
a medick		
a two-tone pea		
Carob		
inaceae		
pale blue and white with		
swept back petals		
ginaceae		
Blue water-speedwell		
Blue water-speedwell		
Scrophulariaceae		
a mullein		
nulaceae		
Throatwort		
Verbenaceae		
the chaste tree		
Vitex agnus-castus the chaste tree Asteraceae		
a fleabane		
Crown doiny		
Crown daisy		
Typhaceae		
a reed mace		
Junçaceae		
Sharp rush		