

# Northwest Africa 2025

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## **Intro**

This is the combined tripreport of two trips to Morocco, Western Sahara and Mauritania which we took in January/February 2025 and November 2025 respectively. The first trip, with Michel, Valentin and Demian focused on central and western Morocco, Western Sahara and Mauritania while the second trip with Milan, Valentin and Demian focused mainly on eastern and southern Morocco. In the first trip we saw 38 species of mammals and in the second one 49. This made for a total of 65 species over both trips combined.

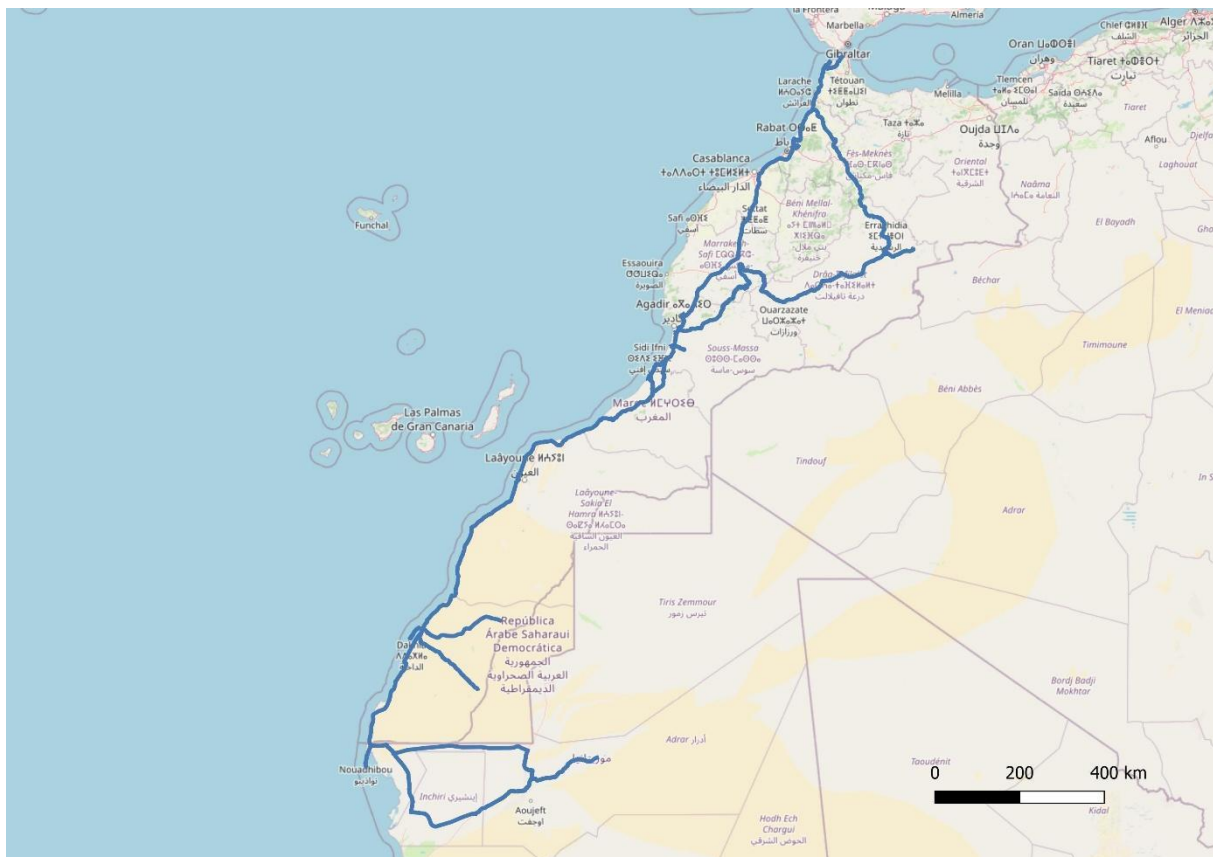
This report focused on a description of route, habitat and logistics.

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## **Overview of the first Trip: Morocco, Western Sahara and Mauritania**

Starting mid-January 2025, Michel, Valentin and Demian took a three-and-a-half-week trip from Tanger in Northern Morocco, all the way to Mauritania and back. The first week of the trip with only Michel and Demian was spent in Central and Western Morocco with a slightly stronger focus on birding, as it was our first time in the area. From there, we drove to Dakhla where we picked up Valentin and did close to a week of mammal watching in Western Sahara, interrupted by another week which we spent in Mauritania. Afterwards, we drove back north, spending another couple of days around Agadir and other parts of western Morocco before heading back home.



Route we took during the first trip excluding the ferry crossings. Starting in Tanger, going into central Morocco and south to Western Sahara and Mauritania, before coming back to Tanger.

## **Overview of the second Trip: Morocco, The East and South**

At the start of November, Milan, Valentin and Demian took a short, but very successful seven-night trip circling clockwise from Nador passing, Oujda to Figuig, on to Merzouga and back via Ifrane. We tried to focus on target species not found further west and clean up species not seen on the previous trip. We also put a focus on bats, dedicating at least one hour per day doing mostly bioacoustics.



Route we took during the second trip excluding the ferry crossings. Starting in Nador and going clockwise before coming back to Nador after seven nights. Demian also went to Tanger in the end.

## **Logistics and Preparations**

Morocco and Western Sahara are safe with the usual precautions. We never had problems. People outside of the tourist areas are very friendly and welcoming to visitors. We mostly slept in the rental car (2wd Dacia Duster) and a tent and never had a problem, even if some nights it took some time to find a suitable spot. When trying to sleep along a backroad along the coast, we were checked by police but they were very friendly and in all other nights we were undisturbed. Police checkpoints can be everywhere, and speed checks are frequent. Due to the nature of our trips close to border conflicts (both in Western Sahara and near the Algerian border in the Southeast of Morocco), we also frequently interacted with soldiers who sometimes told us to leave a certain area. Showing the mammal book and some knowledge of French helped, and some officers even gave advice on what species can be found in the area. Even better advice for species was to ask shepherds, although they often referred to species probably not present anymore. Bread and cheese (vache qui rit) are widely available and (unfortunately) made up most of our diet. Due to the high speed of our trip, we barely slept in hotels or ate in restaurants, but when we did, it was amazing!

For the second trip we had access to the excellent and invaluable resource “Moroccan Mammal Atlas”. Order the book through here, careful it takes some time to receive the book: <https://www.sfepm.org/la-boutique-sfepm/atlas-des-mammiferes-sauvages-du-maroc-peuplement-repartition-ecologie.html>. It includes range maps and text accounts (in French) that helped us identify the rodents, in particular.

We rented a Dacia Duster 2wd for both trips. High clearance and a robust build, we took some nasty, especially stony roads. Beware of sand though, that is the true trap, as we learned the hard way... But

even then, you can count on the help of the locals. Thanks to the one guy who sacrificed his scarf for us!

### **Style of traveling**

Demian and Valentin have refined their “rapid mammal survey” with time – we focus about 75 % on mammals, 15 % on birds and 10 % on other species. Both Milan and Michel brought their own twists and were critical to the success: Michel with his ability to drive the whole night on little sleep, critical in Western Sahara and also with his never-ending enthusiasm for reptiles, spotting every snake or lizard along the roads. Milan, with his special focus on bats, allowing us to pick up many bat species in the second trip by scouting small, isolated water bodies or little streams in the day and then dedicating the first hour after sunrise to bats (with some short night walks for rodents). This way we picked up peak bat activity, while giving the “mammals of the night” a bit of time to get active. Otherwise, we tried to cover big distances during the night spotlighting. The roads are increasingly empty and larger carnivores/hares/jerboas can be everywhere. In the North, spotlighting was mostly done with thermals and, especially the driver and when targeting carnivores, with a torch. The thermal allows it to find rodents and smaller species like hedgehogs, but the torch outperforms in distance for anything with decent eyeshine. In the western Sahara we only used torches, as thermals are of limited help with all the hot stones, even later in the night.

We tried to document every sighting, or at least one or two individuals if we encountered an abundant species in a new area, and uploaded the sightings to iNaturalist.org. For the detailed mammal sighting locations, have a look here (everything we saw in Morocco, Western Sahara and Mauritania, excluding the ferry crossings):

[https://www.inaturalist.org/observations?d1=2025-01-01&d2=2025-11-10&order\\_by=observed\\_on&place\\_id=7306,10321,7133&subview=map&taxon\\_id=40151&user\\_id=demianhiss,vmoser,milanpestalozzi,michel\\_kilcher&verifiable=any](https://www.inaturalist.org/observations?d1=2025-01-01&d2=2025-11-10&order_by=observed_on&place_id=7306,10321,7133&subview=map&taxon_id=40151&user_id=demianhiss,vmoser,milanpestalozzi,michel_kilcher&verifiable=any)

Observations of other taxa can be found as well by choosing the taxa of interest in the “species” field.

Most bird observations can also be found on eBird:

First trip: <https://ebird.org/tripreport/321471>

Second trip: <https://ebird.org/tripreport/441588>

Precipitation appears to have a positive influence on rodent activity. Especially for parts of the second trip, there were abundant rodents, typically with multiple per stop in the night or also good bird activity in the day. Apparently in the fall it rained a lot and, in some areas, the traces of recent rains were still visible. Rodent activity is also heavily influenced by the moon. With more moonlight, e.g. gerbils were mostly active under cover and in general less active it seemed. For example, for the rare *Gerbillus hoogstraali*, we were unsuccessful in the evening with moonlight, but then in the early morning hours, once the moon settled, we found some animals.

During the second trip, due to the hint of herpetologist and future mammalwatcher Rayenne Vuillemin (insta: rayanevuilleminwildlife), we also increasingly checked wells for trapped wildlife during the day. But after a few wells we were glad to not be herpetologists, what a boring and depressing activity (with many dead animals, including rodents, cats, dogs, many hedgehogs, Desert Monitors and in general the smell of death). Worthwhile though, as we saved some rodents and reptiles. As we had to catch the rodents to remove them from the wells, we took some measurements and were able to study them up close while receiving a reasonably safe species identification. There are a variety of wells, some large, made of concrete underground, others with a cover or simply a ditch with a pumpstation, but apparently even small ones or seemingly closed ones are worth checking. Especially worthwhile are black plastic lined basins, usually a bit elevated and fenced, see image below. To flush the rodents out, that can survive some time depending on the amount of sand

in the well, we had metal digging sticks and then cached the confused rodents with a net. Watch out that you have a back-up plan to get out again. Not all members of the group were able to run up fast enough to get out (feeling old yet?), but with a rope it is easy. But don't mess up you, do not want to end up like all those cats and later be found by some herpers 😊. Also watch out for venomous snakes and bitty reptiles, we found (and rescued) a Horned Viper that surfaced very close to Demian's foot! Since this activity is interesting for both groups, maybe there is potential for collaborations between herpers and mammalwatchers?



Slightly elevated empty water basin, used mainly to store water when available to grow watermelon. Death trap for wildlife.

### **Ferries: Free whale watching!**

Three times we took the trans-Mediterranean ferry from Sète to Tanger or Nador (via Barcelona, ca 2 days) and two times the ferry between Tanger/Tanger med and Tarifa/Algeciras. During the long ferry rides to and from France, we spend a lot of time on deck. We also rested well before and after, and spent some time working, doing trip planning, writing the trip report and dreaming of future trips together. A very long, but also a relaxing way to start and end such an intense trip. On the first transfer (Tanger-Sète) we spotted Striped Dolphins a couple of times, besides some other Marine life (shearwaters like on all trips (mainly Scopoli's, Yelkouan and Balearic), sun fish, swordfish, tuna...). On the second transfer, we were very lucky with two Sperm Whales (*Physeter macrocephalus*), Common Dolphin, Striped Dolphin (*Stenella coeruleoalba*) and even a group of Cuvier's Beaked Whales (*Ziphius cavirostris*)! On the third trip, the weather was stormy, and we saw very little, eventually preferring to work on some other things. The transfers between Tanger and southern Spain (Tarifa/Algeciras) were interesting as well. The first time, no marine mammals were spotted, but many shearwaters and two puffins. The second time however, crossing between Tanger med and Algeciras, Demian saw two pods of Bottlenose Dolphin (*Tursiops truncatus*), one group of Common Dolphin (*Delphinus delphis*), one group of Striped Dolphins as well as two pods of Long-finned Pilot whales (*Globicephala melas*). Overall, especially for the long crossings, we think focusing on areas with marine ridges and continental

shelf dropping is the best strategy. The beaked whales were in an area of an underwater hill for example. Check iNaturalist for where people see species and try to document your sightings too, that way in the future, we all know better where to focus! Concerning whale watching from Morocco, we heard rumours about a Whale Watching company opening up in Tanger (insta: whalewiseproject).



Cetaceans from the ferry crossings, clockwise from top left: Striped Dolphin (*Stenella coeruleoalba*), Common Dolphin (*Delphinus delphis*), Long-finned Pilot Whale (*Globicephala melas*), Cuvier's Beaked Whale (*Ziphius cavirostris*), Sperm Whale (*Physeter macrocephalus*) and Bottlenose Dolphin (*Tursiops truncatus*).

## Morocco- The Northwest and Southwest (first trip)

*Tanger – Merja-Zerga – Ifrane – Zaida – Marrakech – Ouikameden – Tizi n'test – Agadir (twice) – Kenitra - Tanger*

This encompasses the first and last days of the first trip, before and after going further south. Demian arrived first by ferry from Tarifa (with Puffin and many Shearwaters on the way) and picked up the car and went to Cape Spartel to do some seawatching before Michel arrived. Apart from many people admiring the sunset, the first mammals of the trip were some (semi-)Wild Boars (*Sus scrofa*) being fed trash by tourists. Later, when Michel arrived, we immediately drove towards Merja-Zerga, arriving there when it was already dark and starting our spotlighting drive on the east side of the lagoon to look for Marsh Owl. It took until 2 a.m. until one individual made its presence known by calling several times. It didn't get boring though, as we saw around ten Hares, several North African Hedgehogs (*Atelerix algirus*) and some other interesting critters. A better strategy for the owl is probably to already be there in the afternoon, as most people see them shortly before or around dusk. Following the most recent taxonomy, the Hares in this area are Mediterranean Hares (*Lepus mediterraneus*). We had booked a hotel for the first night, where we arrived at 3 a.m., and luckily somebody still let us in (sorry for arriving this late!



Wild Boar (*Sus scrofa*) at Cape Spartel, Mediterranean Hare (*Lepus mediterraneus*), Black-winged Kite and Sunrise at Merja-Zerga.

The next morning was spent birding the eastern parts of the lagoon again and the areas around the hotel at the northern end of the lagoon before starting our drive towards Ifrane. Arriving there in the afternoon, we immediately went to see the Macaques (*Macaca sylvanus*). They didn't seem very wild with all the tourist hordes, so we wandered off until we found a group travelling through the snowy

forest and foraging by turning rocks and showing some more natural behavior. This felt like a much more satisfactory observation. We also heard at least four Levallant's Woodpeckers and saw one individual nicely. The rest of the evening, until darkness set, we wandered around, admiring the forest and being happy about all the scorpions we found while turning rocks. After it got dark, the temperature dropped rapidly, going as low as  $-9^{\circ}\text{C}$  on the drive to Zaida. We therefore decided to sleep in a hotel in Zaida and went birding the next morning before



Barbary Macaque (*Macaca sylvanus*) at Ifrane National Park.

continuing towards a legendary bat cave near Ksar Tazougart. This cave is well-visited by locals and tourists, but still holds a large number of bats, in particular Greater and Lesser Mouse-tailed Bats (*Rhinopoma cystops* and *microphyllum*) and Maghreb Bentwings (*Miniopterus maghrebensis*). Before that, however, we enjoyed the drive, with many short stops along the way whenever the habitat looked interesting or we saw something from the car. One highlight was a North African Sengi (*Petrosaltator rozeti*) we stumbled upon at 32.6174084807, -4.5319680656, allowing us to observe this amazing animal for several minutes—going in and out of a crevice, scratching itself, sniffing in the wind and yawning while sticking out its tongue.



North African Sengi (*Petrosaltator rozeti*) and its habitat.

We also stopped at the Common Gundi (*Ctenodactylus gundi*) spot (32.1576966055, -4.3636399817) found by the Bebbi Babbler in 2018, where several other people have seen this species. After about 10 minutes of searching, we found one.



Common Gundi (*Ctenodactylus gundi*).

From the Gundi spot, we went straight to the aforementioned cave. In the cave, we first met some locals coming out, before seeing many Egyptian and Greater Mouse-tailed Bats, as well as a handful of Blasius Horseshoe Bats. When we arrived in the great chamber with the enormous guano piles, however, it was deserted. No bats in sight, and especially no Maghreb Bentwings. This was surprising to us, as in most trip reports we read this was the place to see the species. Friends of ours also found many exactly at that place just a couple of days later, and when we went there during the second trip, we saw several hundred. We don't know if they had been disturbed somehow or what else might have happened. We also spent a considerable amount of time checking out the areas deeper in the cave, as well as all the smaller side chambers we found, but apart from some more Mouse-tailed Bats (also rather few), we found nothing. When we exited, it was already getting dark, and taking out our detector, we added Kuhl's pipistrelle (*Pipistrellus kuhlii*) and European Free-tailed Bat (*Tadarida teniotis*) to our list.

In the night we drove towards the famous Tagdilt Track, so that in the morning we could bird this place. Nearby, there is a place with both Desert Eagle Owl and Lanner Falcon nesting, and usually, there are some locals who can guide you there. But as we didn't see anybody and didn't know the exact place, we missed it. On the Tagdilt Track, however, we saw our main target species for the Area, Thick-billed Lark, with several individuals feeding right in the middle of the biggest trash piles. Birding in general was pretty good. We did not see Fat Sandrat (*Psammomys obesus*)—maybe it was too cold—but usually people see this species at that place. Later, we continued driving towards Marrakesh, checking out some abandoned buildings (for example here: 30.968379227411937, -6.726801872999826) but only found bat shit and not the animals responsible for it.

The program during these long drives was always to stop when the habitat looked particularly good, swarm out and do a five-minute scan of everything and quickly continue to not lose too much time. This often yields good results and makes long drives more interesting as well.

We arrived north of Marrakech in the evening and ran towards the riverbed to look for Pale Sand Martin before it got too dark. After walking around for a while, three individuals flew by us just as the sun was setting. When darkness set, we drove towards Oukaïmeden and found a sleeping spot in a small forest somewhere in the mountains, where we went spotlighting for a while but only found scorpions and Maghreb Tawny Owl. In the morning, we drove the rest of the way up to Oukaïmeden, where we quickly saw African-Crimson-winged Finch and the local Horned Lark subspecies. Birding in general was quite nice in the whole area. Driving down again and stopping here (31.2353930091, -7.818219066), we found Barbary Ground Squirrel (*Atlantoxerus getulus*) and Moussier's Redstart.

Afterwards, we started our drive towards Tizi n'Test. We stopped at several promising-looking areas to scan for Cuvier's Gazelle and Aoudad, but found nothing. We only saw Aoudad in the hunting enclosure around the pass. In the night, we arrived in Agadir and went to sleep. The next morning, we went to the Oued Massa, where we saw Black-crowned Tchagra, one of our bird targets of the area. Afterwards, we went to the entrance to the Souss Massa national park close to Sidi Binzarne, where one of the park guards showed us a sleeping Red-necked-Nightjar. Inside the park, there were two Blue-winged Teal, which had been present for a while, as well as many other nice birds. There are also some pipes which we checked for bats, but could not find any. Next on the program was finding

Northern Bald Ibis in the plains north of the river. After almost getting stuck in the sand on one of the smaller roads, we found about 130 individuals flying directly overhead—what a cool bird!



Black-crowned Tchagra and Northern Bald Ibis in the Souss-Massa National Park

After thoroughly enjoying them, we went towards the Anti-Atlas to look for Cuvier Gazelles (*Gazella cuvieri*) at the spot where the Bebbi Babbler saw them in 2018 (29.933914, -9.335279). We spent the whole afternoon and evening there, but did not see any. When talking to a local boy, he confirmed they are in the area but seldom seen. In hindsight, the area around Tafaroute seems to be a much better spot as people find them there much more reliably. We knew there were several more interesting spots to check out in the Agadir area, but we had to continue towards Dakhla to be in time to pick up Valentin, so we decided to check out these further spots when coming back from the Western Sahara.

The drive from Agadir to Dakhla is long, so we already drove south towards Guelmin in the evening, choosing the route along the coast as we wanted to check out some interesting spots there the next day. The next morning, we found many Fat Sandrats (*Psammomys obesus*) around here (29.3470416667, -10.1844833333) and continued south, checking several dried-out wells for bats but only found traces. Further south, already behind Guelmin we first missed Scrub Warbler at this spot (28.9201313822, -10.154592852), but found it one the way back two weeks later. The rest of the day and much of the night was spent driving on the well-maintained highway, and was rather uneventful, but we saw our first African Wolf crossing the street around here (26.456137, -13.970842). We stopped at Boujdur to get some much-needed hours of sleep and an even more needed shower, before arriving in Dakhla, where we would meet up with Valentin. The parts of the trip that deal with our time in Western Sahara and Mauritania can be found in the respective chapters. Here we continue with the events after coming back from the south and our observations in western Morocco again.

After coming back from our Western Sahara and Mauritania adventure, now including Valentin, we spent some more time in the Agadir area. We slept at Camping Sidi-wassay campground, as it is very close to the spot for Hoogstraal's Gerbil (*Gerbillus hoogstraali*). Which we tried to see unsuccessfully in the evening (with the moon out), and then again—this time successfully (30.0538941924, -9.6909299847)—in the early morning hours while it was still dark (with the moon already set). During the day, we saw Red-necked Nightjar at the Souss-Massa National Park again, many Northern Bald Ibis, and Pomarine Skua, besides many other seabirds during some seawatching. We also went to the place to look for Striped Ground Squirrel (*Euxerus erythropus*). There is a relict? - population of this species in the plains of the Souss Valley. On the drive towards this place, we saw Squirrel Cuckoo, and after some time searching, we also saw the squirrel here (30.2800308751, -9.5537637732).

We then visited the Souss-Massa National Park enclosure where Ostrich, Dorcas Gazelle, and Addax are being held. They are clearly not wild; tame and being fed, it feels more like a giant zoo. But we appreciate the effort of bringing these animals back to Morocco long-term!

In the evening, we met up with a guide whom we had met previously around Sidi Binzarne and who told us he knew good areas for bats. The first place he took us was a cave (or rather more of a rock overhang) where we saw two Sundevall's Roundleaf Bat (*Hipposideros tephurus*), which was exactly the species we had hoped for. The two individuals we saw came to the overhang several times to roost before continuing to hunt. We also checked some more caves and buildings in the area, but without further luck with bats. At least we found a Red Fox (*Vulpes vulpes ssp. barbara*) and saw what was potentially a Jird, which unfortunately was only seen briefly and avoided further attempts to observe it again. The guide, Lahcen, was very happy to work with us on bats, knows the area well, and agreed to share his contact details, so if you are in the area, you can contact him (+212 695-973720).

The next morning, we had to head north, stopping at Wim Timdwin cave, which is closed off after a couple of meters, though. We did, however, find an interesting, potentially undescribed millipede—in case somebody wants to go look for it and describe it :)



Potentially undescribed Millipede from Wim Timdwin Cave.

In the evening, we went successfully looking for Double-spurred Francolin at Sidi Yahya. We also heard some Wild Boar in the area. Afterwards, we went spotlight driving around in the Forest Maâmora area, finding many (at least 15) North African Hedgehogs (*Atelerix algirus*), as well as some European Rabbits (*Oryctolagus cuniculus*) and some of the more common bats. We slept at Kenitra, where we went birding the following morning, with many White-headed Ducks as the highlight. After attempting to clean the car, in which we had mostly lived for the last three and a half weeks, we headed back to Tangier, returned the car, and while Michel flew back, Valentin and Demian embarked on the ferry from Tanger Med to Sète in France. To see more about the ferries, check out the chapter on the ferry crossings.

This was the ending of the first, very successful trip. Thank you, Michel, for joining!



Participants of the first trip, Valentin, Michel and Demian

## Morocco - The East and South (second trip)

*Nador - Ain Bni Mathar - Figuig - Merzouga - Tinghir - Ifrane - Nador - Tanger*

The second trip to the east and south of Morocco took place in the beginning of November (7 nights). Partly it was so short, because the ferry schedule allows little flexibility and travelling by ferry, train and bus from Germany/Switzerland to Morocco takes 2-3 days each way (but can be rewarding, see ferry chapter). Due to the limited time and our previous experience in logistics and species in Morocco, we saved time by skipping some places (e.g., not looking for Common Gundi or Sengi) and therefore could maximize time searching target species.



### *Nador - Ain Bni Mathar*

After arriving with the ferry and picking up the car and Milan at the airport, we drove towards Oued Moulouya, where we first scanned the area from the hide at 35.1174357, -2.3437882 (Mongoose is in the area) and then changed to a location that looked more suitable for our first target species Maghreb Dormouse (*Eliomys munbyanus*). We took a night walk in the riparian forest. Bat and rodent activity were very low, but we eventually squeezed out the first North African Gerbil (*Gerbillus campestris*, only gerbil in range), besides a Red Fox. We also saved a Montpellier Snake from a well (35.0929688807, -2.3902848873), where also an Algerian mouse (*Mus spretus*) was trapped (which we could not catch and therefore escaped the “saviors”). We started driving back to the main road and soon encountered the first Mediterranean Hare (*Lepus mediterraneus*) and then our first big target: Greater Egyptian Jerboa (*Jaculus orientalis*) on the open plains, besides more *Gerbillus campestris* in the same habitat but with bushes. Good start! We started what would be our longest night drive, up until Ain Bni Mathar – we chose to go that far to have a small chance to see Lesser Short-tailed Gerbil (*Gerbillus simoni*), which in Morocco is just recorded around this town that is a bit wetter than other areas in the east. While we did not find the gerbil, we had many animal encounters on the long drive down: Red Fox, African Wolf (*Canis lupaster*), a single Fat-tailed Gerbil (*Pachyuromys duprasi*), more hares and most importantly a lot more Greater Egyptian Jerboa (more than 40 throughout the night), that become so common that we stopped documenting every individual (still – for more locations check iNaturalist.org).



Greater Egyptian Jerboa (*Jaculus orientalis*) and Fat-tailed Gerbil (*Pachyuromys duprasi*).

Especially good was a slightly smaller back road we drove starting from Oujda and going over Tiouli back to the main road. We struggled to find a good spot to sleep, as the field around Ain Bni Mathar seemed guarded, as we saw a torch moving towards us when we took a dirt road at three in the morning. We decided to move on and eventually settled in a nice spot next to a lake that also made for good birding in the morning (34.032936, -2.158636).

### *Ain Bni Mathar - Figuig*

We still had a bit off driving to do, and arrived in the later afternoon near Figuig, where we had nice Libyan Jird (*Meriones libycus*) activity on a side road (32.152615, -1.499591, claws dark, tail same length than body). We started to scan with the scope for Gundi on top of the rocks on the slope towards the Algerian border. Even though we tried not to be too obvious, we eventually attracted the attention of some border military guys, who said we had to leave the area and go back to the main road. This is what we did, and as the sun was setting, we prepared for some bats. This night we had to settle with Kuhl's Pipistrelle (*Pipistrellus kuhlii*) and European Free-tailed Bat (*Tadarida teniotis*) hunting above some remnant water holes in the main riverbed. Additionally, we heard Lichtenstein Sandgrouse calling, which was a great surprise as they are already rare in Morocco and to our knowledge have not been reported from this area. After this pleasant surprise, we started spotlighting towards Figuig and then back west, along the main road. On the side of the road, we had some bush-climbing Gerbils (which we haven't yet identified and maybe they have to remain unidentified), as well as another African Wolf. However, overall, it was fairly quiet, and we went to bed earlier, to maximize the chance for Val's Gundi (*Ctenodactylus vali*).

The next day we took the (paved) road starting here (32.152386, -1.303063) towards two water reservoirs and eventually back to the main road (32.456182, -1.681385). While for Gundi, we were not convinced by the available habitat (the mammal atlas shows two squares in the very south, along the Algerian border, and an isolated one further northwest around Bouarfa), the habitat looked good for other mammals, and we regretted not spotlighting there the night before. Maybe something to try, but probably smart not to do it near the Algerian border (also a lot of military presence and in the day, we were once told to move on, when we stopped randomly on the side of the road). This area is terrain for big dreams after all: Apparently, the last Maghreb (Algerian) Cheetahs on Moroccan territory were seen in this area.



Scenery around Figuig.

### *Figuig - Merzouga*

No Gundi, but the next highlight was waiting for us: The bat cave near Ksar Tazougart, which we already mentioned in the first report. This time, the cave had all the promised species and more. We first saw Greater and Lesser Mouse-tailed Bats (*Rhinopoma cystops* and *microphyllum*) and Maghreb Bentwings (*Miniopterus maghrebensis*). The bentwings are particularly sensitive to disturbance. We tried to minimize the disturbance by taking pictures of the first individual outside of the main colony and using red light which worked better anyway, as the bats were less spooked, which allowed us to better check through the hundreds of bats. We were also lucky to find some other bat species like Blasius's

Horseshoe Bat (*Rhinolophus blasii*), Maghreb Long-eared Bat (*Plecotus gaisleri*), Geoffroy's Trident Leaf-nosed Bats (*Asselia tridens*), and Maghreb Mouse-eared Bats (*Myotis punicus*) and even an Algerian Mouse (*Mus spretus*)! We exited the cave at sunset and started with bioacoustics: European Free-tailed Bat, more Kuhl's pipistrelle and probably Rüppell's Pipistrelle (*Vansonia rueppellii*). This slower approach also paid off with the rodents. Near our dinner/bat scouting spot, we first had another Algerian Mouse, then a probable *Gerbillus campestris* and finally on the way back to the car, Demian saw eyeshine, too bright for the feral dogs. And indeed, with some patience, he got some views of a Genet up in the Palm on the other side of the river! After we crossed, we got excellent views. Interestingly, there were also Algerian Mouse climbing in the top of the palm trees!



Maghrebian Bent-wing Bat (*Miniopterus maghrebensis*) and Gaisler's Long-eared Bat (*Plecotus gaisleri*).

The following night-drive, we encountered a hare, which, this far south, might already be *Lepus schlumbergi* as well as a jerboa, which, based on the habitat and our impression of it most likely was *Jaculus hirtipes*, although the differentiation of the cryptic species complex *J. jaculus* and *J. hirtipes* still remains a mystery to us. Features for identification that work in other places, do not seem to apply to the populations in northwestern Africa (or we never found a true *hirtipes*). Other than those two encounters, the night drive was again a bit disappointing (the habitat was not so good, many settlements and a surprising amount of traffic), which is why we went to bed a bit earlier and did not go all the way to Merzouga which we had planned. We drove the rest of the way the next morning.

Merzouga and the Erg's are indeed spectacular, however also very touristy. For this day, we met up with Swiss photographer and friend Flurin Leuggner (insta: flurinleuggner), who rode from Switzerland to Merzouga on his bike! We planned to do a new activity: Checking wells. These are built to hold water at some point, but many are dry and become a death-trap for all forms of wildlife. We checked 12 wells (only 4 with some water left), which took the better part of the day. Let's start with the dead stuff: 6 Hedgehogs, a couple Jerboa, countless Gerbils, 3 cats, one dog, in addition some older Varanus and a chameleon. Live reptiles were one small lizard that got away and a Horned Viper that we could remove with the strong butterfly net we used also to catch the 5 Gerbils (1x Pleasant gerbil *Gerbillus amoenus* with naked foot-soles and small size, but too large to be Pygmy Gerbil *Gerbillus henley*, 2x Tarabuli's Gerbil *Gerbillus tarabuli* with hairy foot-soles, too large for Lesser Egyptian Gerbil *Gerbillus gerbillus*, two more that jumped out before we could complete measurements, but likely another Pleasant and Tarabuli's each). Even if depressing and a bit risky work (with venomous snakes and slippery wells), the wells made a good day-time activity, especially as it allows to study and measure gerbils up close and has potential for many more mammal species to be seen this way. Our bat spot for the night was in a beautiful area away from the most touristic areas around Erg Chebbi, but unfortunately already dried up (30.8393001, -4.1275827, the water does not seem to be there for a long time, the road is a bit difficult too). We decided to take a room for the first time, to recharge batteries and ourselves 😊. The Porte de Sahara hotel (30.764956, -4173327) also marks the end of the paved road, and comes with a high recommendation! Mention that you plan to return late, so they leave the gate open. The hotel had some hunting Kuhl's Pipistrelle around, and right behind, in the dunes, we had four Fennec after a quite short night walk of ca 1.5 hours. Seems to be a good spot for

this species! However, we only figured that out after midnight... We started the night with a nightdrive, with the clear target species Fennec (side quest Desert Hedghog), so we focused less on rodents than other nights. At the start of the night, we saw some smaller sand-adapted gerbils, which we suspected to be Lesser Egyptian Gerbils. As we know from earlier trips that these are common (besides Tarabuli's) in this type of habitat, so we did not investigate further. We started the nightdrive in the direction of Erg Chebbi until we reached the settlements around Erg Chebbi. The other way, we also dared to go some kilometers further than our hotel until the road became quite sandy, where we decided to turn around with our 2wd. We missed the hedgehog again just like in Figuig (resting/low activity around this time of the year?), but besides many Feral Cats, we saw Rüppel's Fox and Red Foxes, making this a 3-fox night!



Fennec (*Vulpes zerda*) habitat and one of the four individuals we encountered in it.

### *Merzouga-Tinghir-Irfane*

The next day, after going for a long time until we finally found the Fennec's, we started late with the drive to Ralph Bürglin's Aoudad Sheep spot (31.6208924913, -5.5624171887). On the way, we stopped in a Jird location from iNat (31.4555279355, -5.2235472473) in a wadi. First, we found only old burrows, but with some patience we eventually saw some individuals, identified as Sundevall's Jird (*Meriones crassus*). Reaching the sheep area, we arrived at the "Auberge La Festival". They were booked out (and pricey too!), but we wanted to ideally move on in the night as well, so it was fine. Just as a warning, if you prefer sleeping in a bed rather than the car seat, you'd better reserve this one (and also Porte de Sahara). However, they let us know that the sheep will come down "at any moment now". We positioned ourselves on the road facing the cliff above the auberge and indeed within minutes they appeared! What a stunning species! We were lucky as one of the females was in heat and two males followed her in a high-speed chase along the near-vertical slope. She let the winner and bigger male wait quite some time (clearly excited for what's about to come), and then he got lucky, and we got lucky! Who else has seen mating wild Aoudad? Don't blink too much though, the fun is short-lived for everybody. Well, maybe that was a good thing, because as there was still a lot of light, we had enough time to change to our bat spot. And this one was a good one! Above a small stream leading to a big reservoir, we had a lot of activity and most things we managed to see in the torch light as well\*: We had repeated passes of European Free-tailed Bat and Kuhl's Pipistrelle, but also the Isabelline Serotine (*Eptesicus isabellinus*). Additionally with the detectors, we recorded single flyovers of Lesser Horseshoe Bat (*Rhinolophus hipposideros*), Western Barbastelle (*Barbastella barbastellus*), Savi's Pipistrelle (*Hypsugo savii*) and the Highlight of the night a Desert Long-eared Bat (*Otonycteris hemprichii*).

\*Now we can start the discussion about what you need to "see" to count a bat. It is all a bit silly, but what we do is try to see the bat at least once. Better than the strong spotlight torches with a narrow beam are weaker, smaller torches with a wide cone of light. And then the best technique seems to be to wildly shine around with the torch. Also, good to stand back-to-back, so everybody can check one side, multiple lights get confusing if someone finds the bats.

After this excellent bat watching, we started the drive towards Irfane. This night, we wanted to cover a significant distance in the night, the habitat looked good, the roads we expected to be mostly empty (they were). However, along the main road in the High Atlas, we had very little activity. We turned into a small road leading directly through the Haut Atlas Oriental National Park (32.152345, -5.575235). The condition of the road was bad, and we doubted if we had made the right decision, but at least we started seeing some hares and Rex Foxes. We reached the National Park but lost the spotlight behind the driver (sleeping on the back bench), and due to the temperatures creeping uncomfortably low, we decided to seek shelter in the Auberge Rex (32.222293, -5.435532). Very simple, but authentic and situated in spectacular scenery. Sorry for showing up so late, though! The owner knew Caracal, so maybe they are still in the area (our original reason to target this area).



Scenery in the Haut Atlas Oriental National Park.

In the morning, we moved on. The road eventually became better, and as we picked up a local shepherd on his way to the next bigger town, we did not need worrying about finding the best way anymore 😊.

Early afternoon, we met with Haytam Iallaten, a local PhD student who is trying to find Morocco's last Caracals. We were teaming up for a spotlighting session tonight in the area of Ifrane/Azrou/Ain Leuh. We started by driving the roads during the day, and we found many Barbary Macaque, luckily with some more wild behavior than the habituated ones along the larger roads.



Barbary Macaque (*Macaca sylvanus*) in the Ifrane National Park.

We also explored some abandoned buildings and found a large, currently not occupied bat colony in a house (XXX, with a Genet latrine as well). We started the night drive, but very slow, as first we were on hold due to only half of the group seeing Wood mouse (*Apodemus cf. sylvaticus*), and then we tried hard to identify a skittish Nightjar (Common, we saw three more nightjars, probably also Common that night). We also did some bioacoustics and recorded Common pipistrelle (*Pipistrellus pipistrellus*) and Gaisler's Long-eared Bat (*Plecotus gaisleri*). We went well past midnight, ending the night with over 40 Red Fox and many Hares and a few more *Apodemus*. No caracal, but it was a long shot anyway.

#### *Irfane-Nador-Tanger*

Today, we wanted to explore some more caves, with a guide. We failed to organize this the day before, because we called instead of writing on WhatsApp. This morning, we got more lucky and it worked out at the last minute: We got the number of cave guide Jamal (+212667410361), who offered to take us to the Chaara Cave, not cheap, but including the needed 4WD car. The visited cave is known for cave-dwelling North African Fire Salamanders (*Salamandra algira ssp. atlantica*), but we were more interested in having a last effort at some additional bat species. And it was successful! We arrived juuuust at the right moment, with the bats ready to leave the cave for the night, so they were all active and ready. This made it possible to identify the two Horseshoe Bats species (*Rhinolophus euryale* and *ferrumequinum*) acoustically besides some close ones that we took some pictures of too. We also found some Schreiber's Bentwing Bats (*Miniopterus cf. schreibersii*), and as a big highlight Zenati Myotis (*Myotis zenatius*)! The guide was maybe more used to herpers, and he tried to explain to bat expert Milan why the Myotis was indeed a pipistrelle, which was quite entertaining to watch. Also, his driving was so aggressive that we almost cancelled the tour before starting it! In the cave itself he was very nice and accommodating.

We decided to move on in the night and drove some distance towards Nador, mainly on highways, so we did not see any wildlife. The next day, Demian dropped off Valentin and Milan, after some snorkeling in the shallow lagoon and continued himself towards Tanger, while for Milan and Valentin,

a stormy ferry crossing awaited. On the drive towards Tanger, Demian went to Boujibar National Park to try for Maghreb Garden Dormouse at night, but with no success. While checking out some caves here (35.1645156104, -4.2773545561), he saw another Gaisler's Long-eared Bat (*Plecotus gaisleri*) and spent the last evening in and in front of a cave south of Tetouan (35.50986567296383, -5.330708515438123) where he saw and recorded Greater and Lesser Horseshoe Bats, as well as the more common species that can be expected. The next morning, he continued his trip to Spain, seeing Bottlenose Dolphin, Common, Dolphin, Striped Dolphin and Long-finned Pilot Whales on the 1,5h ferry crossing from Tanger-med to Algeciras. Overall, a great trip, thank you Milan for joining us and with 49 species in 7 nights, very successful!

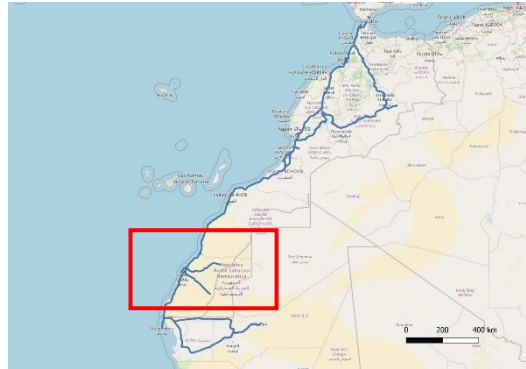


Participants of the second trip, Milan, Valentin and Demian.

## Western Sahara

*Aousserd Road (5 nights) and Bir Anzarane Road (1 night)*

Arriving in Dakhla we picked up Valentin at the airport. The first bird we saw when exiting the building was the 6th Western Palearctic Hooded Vulture, feeding on scraps - a great start! We did some unsuccessful scanning for Atlantic Humpback Dolphin and some snorkeling, then continued towards the Aousserd Road, stopping here (23.6130203301, -15.7231466159), to find African Green toad and a Common Chameleon. Once night fell, we started spotlighting. Besides two Fennec and a Fat-tailed Gerbil, not much else showed up.



6th Western Palearctic Hooded vulture in Dakhla and Common Chameleon not far along the road towards Aousserd.

We learned a couple of things: stay in the best section starting roughly around 80 to 20 km before Aousserd, adjust speed depending on the terrain, and then—with enough caffeine—put in the hours. The Dutch team's impressive numbers of carnivores from the previous year must have been the result of full nights spent spotlighting. Strong torches are a must here, and thermals are of limited help, even early in the morning.

We spent the next three nights spotlighting the Aousserd Road until the early morning hours, then sleeping for a while and went birding during the day. In the nights we saw many Fennecs, many African Wolves (one even during the day), many West Sahara Hares (*Lepus saharae*), some Rüppel's Foxes and quite a lot of rodents. Mainly Jerboas (*Jaculus jaculus* and potentially *Jaculus hirtipes*), as well as Gerbils (Lesser Egyptian Gerbil *Gerbillus gerbillus*) and Ruggenbach's Gerbil (*Gerbillus tarabuli*). One highlight, in the third night, was a Sahara striped Polecat (*Poecilictis libyca*) and an even bigger surprise in the second night was a Honey Badger (*Mellivora capensis*) with fleeting but good views. After it disappeared into the dark, we tried following it into the desert but only found the dug-out burrows of some rodents. During the day we checked caves (around here: 22.614179, -14.478981) for bats and found Egyptian Mouse-tailed Bats (*Rhinopoma cystops*).

After three nights we went to Mauritania for a week. After coming back, we spent another three nights in the desert, spotlighting two nights on the Aousserd Road and one night on the Bir Anzarane Road. This road is especially interesting starting some kilometers after Bir Anzarane. It has large areas that are completely flattened, which is why the animals can be spotted from a great distance and we saw several Rüppel's Foxes and Fennec Foxes. In general, the habitat quality seemed less good however.

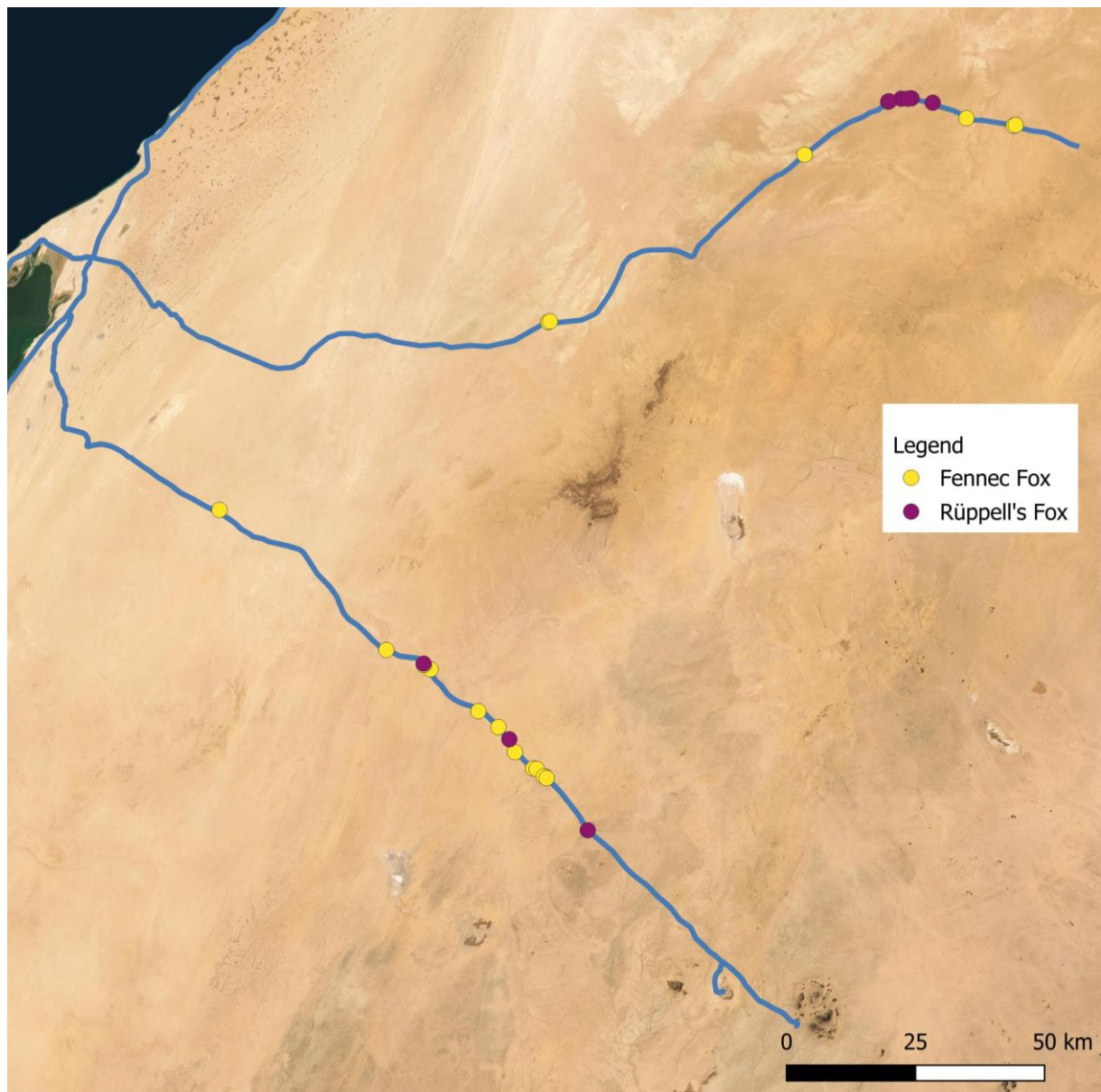
Overall number of observations for the carnivores were as follows:

African Wildcat: 2  
Fennec Fox: 21  
African Wolf: 13  
Honey Badger: 1  
Rüppel's Fox: 9  
Saharan Striped Polecat: 1

The following maps shows where we saw them:



Locations of our observations of African Wildcat (*Felis lybica*), Honey Badger (*Mellivora capensis*) and Saharan Striped Polecat (*Poeciliotis lybica*).



Locations of our observations of Fennec Fox and Rüppell's Fox. Five nights were spent on the Aousserd Road, with a focus on the areas with the most observations. One night was spent on the Bir Anzarane Road.



Fennec Fox (*Vulpes zerda*) and Rüppell's Fox (*Vulpes rueppellii*).



Locations of our observations of African Wolf. Five nights were spent on the Aousserd Road, one night was spent on the Bir Anzarane Road.

Bird highlights included Dunn's Lark, Cricket Warbler, hunting Desert Eagle Owls a couple of times and West African Crested Tern in Dakhla Bay

Reptilian highlights included Desert Horned Viper (*Cerastes cerastes*), Awl-headed Snake (*Lytorhynchus diadema*), Moila Snake (*Malpolon moilensis*), Dumeril's Wedge-snouted Skink (*Chalcides sphenopsiformis*), Sahara Sand Viper (*Cerastes vipera*), Common chameleon and Sudan Mastigure (*Uromastyx dispar*).

We also found that we could find many *Stenodactylus* geckos by scanning slowly with a torch and binoculars at night. When you see eyes, either slowly moving or standing still and being very low to the ground, it almost always turned out to be a gecko.



Reptiles encountered along the Aousserd Road, clockwise from top left: Desert Horned Viper (*Cerastes cerastes*), Elegant Short-fingered Gecko (*Stenodactylus sthenodactylus*), Awl-headed Snake (*Lytorhynchus diadema*), Moila Snake (*Malpolon moilensis*), Dumeril's Wedge-snouted Skink (*Chalcides sphenocephalus*), Sahara Sand Viper (*Cerastes vipera*).

On the last day, before starting our drive back north, we went to Dakhla again to do some last birding in the Dakhla bay and try for Atlantic Humpback Dolphin again. We only saw Bottlenose Dolphin however and we found no online sightings of Humpback Dolphins in the last years. It seems that the local Humpback Dolphin population might have gone extinct.

## Mauritania

### Some extra notes on logistics:

As we couldn't take our rental car over the Border, we left it at the border for a week. This was no problem at all. You can just park it there for free. Also, crossing the border as a pedestrian and taking a taxi through no man's land is much faster compared to talking a car, as we could just walk past all the waiting cars in the line,

This was the only part of the trip we did with a guide, which was helpful in getting around.



Our guide was Ahmed Dehmany. He is a skilled off-road driver and took us to some amazing areas. He also seems to know every policeman (and almost everyone else), which greatly sped up the process at the many police and military checkpoints. However, there were some problems with planning and communication. He changed the starting date one day later, stating that was always agreed (it was not, as the WhatsApp communication clearly proved). He also changed the itinerary when in Mauretania, without telling us at first. This cost us a day at Banc d'Arguin (which we should have visited on the day driving South), and we had to pay for an extra day to at least visit Cap Blanc... To be transparent, he did tell us before that we would have little time, and we should extend the time. But still, communication was difficult.

He is not really a birding or mammal-watching guide in the sense that he doesn't join the actual watching, but he knows the areas where the animals are and takes you there so you can explore on your own. Be very clear about where you want to go and when, as he did make changes to our itinerary that reduced time in key habitats.

We also tried several times to communicate that we preferred more time in good habitat over long meal stops but still ended up waiting for food in unproductive areas almost every day. The food prepared by the chef, Hamudi, however, was excellent! Overall, Ahmed is a great tourist guide, but if your focus is birding and mammal-watching in a limited time, he may not be ideal (but limited choices?).

We definitely recommend visiting Mauritania, also in combination with Western Sahara. If we were to do it again, we would spend more time there, as much of our six days were spent just driving towards and back from the interesting areas around Ouadane, Atar, and Choum.

### The trip itself

#### *Atar - Ouadane - Choume - Cap Blanc*

Leaving our rental car before the Moroccan border, as well as crossing said border, was no problem. Ahmed, our guide, welcomed us in no-man's land, and his presence sped up the process at the Mauritanian side as he seemed to know everybody. He was, however, very tired—he had just come back from another tour, driving through the night with only one hour of sleep. His method of staying awake on the long drive with us was chain-smoking in the car.

We spent the night in some building along the N2, the main road that goes south towards Nouakchott. The habitat was quite boring and spotlighting was unsuccessful. The next day we left the main road and drove towards Atar, with short stops along the way to check some very small caves (barely enough for one person to lie inside, around here: 19.794411, -14.3110928), which held only geckos, and at an oasis (20.2508959292, -13.5064073206), which produced Sudan Golden Sparrow and Chestnut-bellied Starling. Arriving in the dark at a small camp east of Atar (20.539090573, -12.7920030583) we immediately went spotlighting and found an African Wildcat. It was wary of our presence and walked off, but soon we realised she had left behind a kitten in a depression below a bush. We quickly

retreated so the mother could return. We also found a Pygmy Gerbil and a jerboa, probably Lesser Egyptian Jerboa (*Jaculus jaculus*).

The next morning was productive too, with cool birds like Blue-naped Mousebird and Black-crowned Sparrow-Lark as well as an absolute highlight, one of our main target species: several Felou Gundi (*Felovia vae*). What a cute and weird animal.



Felou Gundi (*Felovia vae*) and Felou Gundi habitat

We continued to Ouadane, where we found many Rock Hyraxes (*Procavia capensis*) as well as Rufous-tailed and Black Bush Robins. In the afternoon, we unsuccessfully searched for African Grey Woodpecker in the tree savannah northeast of Ouadane, just inside the Western Palearctic. We did, however, see Blue-naped Mousebird again and found a Fennec den, with fleeting views of something running away—probably one of the den's inhabitants. In the evening and during the night we saw one or more Fennec several times, plus Lesser Egyptian Gerbil (*Gerbillus gerbillus*) and a Golden Nightjar. Additionally, we saw a large bat attacking one of the many migrating hawkmoths; sonogram confirmed it was an Egyptian Free-tailed Bat (*Tadarida aegyptiaca*) (sighting to be published).



Rock Hyrax (*Procavia capensis*), Black Scrub Robin, scenery in Ouadane and the scenery in the tree savannah Northeast of Ouadane.

The next morning, we again tried unsuccessfully for the woodpecker, then started our drive towards an oasis further north, towards Choum that Ahmed thought we might enjoy. Arriving there we immediately found several Felou Gundi (*Felovia vae*), which again caused great excitement as we now had seen this animal also inside the Western Palearctic. Checking some small caves was unsuccessful, although in one, we found bat guano. The oasis itself was stunning: sandy dunes inside a valley with steep rocky slopes opening into stony desert. Gundis were found on almost every rocky slope.

The evening spotlighting walk in the area turned out to be one of the best of the trip. First, a Small-spotted Genet (*Genetta genetta*) appeared—an animal we did not expect here, as it was far from the next known population (also to be published). We even saw another individual two more times, once sitting in a palm tree just meters from us. We also had great views of an African Wildcat (*Felis lybica*), saw two Rüppell's Foxes in the stony desert part in front of the oasis, and several gerbils, which were either Lesser Egyptian or Ruggenbach's Gerbil (*Gerbillus gerbillus* or *Gerbillus tarabuli*). Another highlight was several Egyptian Free-tailed Bats (*Tadarida aegyptiaca*) hunting the many migrating hawkmoths in the area. Their clicks were clearly audible to the younger team members whose hearing has not yet succumbed to the decline of old age.



Figure 4: Stunning scenery paired with incredible observations of African Wildcat (*Felis lybica*) cat and Common Genet (*Genetta genetta*).

The next morning, we again saw the Gundis and a Barbary Falcon before starting the drive towards the coast, which took all of today and half of the next day as well. The path, and often lack thereof, took us through the desert along the famous Mauritania Railway. Apart from an incredibly long train we didn't see much—the desert seemed truly deserted. It also seemed our guide didn't want to set up the tent, so we slept at Inal (21.2855778247, -14.9933926685) in a very simple accommodation. Spotlighting was not possible due to heavy military presence. At least we got a good night's sleep.



Train in the Mauritanian Desert.

The following morning's drive passed through less hostile habitat with more grassy patches and some trees. Here we found Black-crowned Sparrow-Lark and Sudan Golden Sparrow, both this time inside the Western Palearctic. Continuing towards the coast, we went to Cap Blanc, where we spent the afternoon and stayed the night, right at the tip of the peninsula. There used to be a Mediterranean Monk Seal present from one of the colonies a bit further north, but this was some years ago already and we did not see a single mammal. Birding however, was good, see eBird for more details. During the next day, Ahmed dropped us off at the border, which we crossed back to continue our nightly routine in Western Sahara.

## Mammals

Species name	latin	remarks	Trip 1	Trip 2
North African Elephant Shrew	<i>Elephantulus rozeti</i>	near Errachidia: 32.6174084807, - 4.5319680656	x	
Rock Hyrax	<i>Procavia capensis</i>	Mauritania: Ouadane	x	
Barbary Macaque	<i>Macaca sylvanus</i>	Ifrane		x
Barbary Ground Squirrel	<i>Atlantoxerus getulus</i>	several places	x	x
Striped Ground Squirrel	<i>Xerus erythropus</i>	Sous Massa: 30.2800308751, - 9.5537637732	x	
Lesser Egyptian Jerboa	<i>Jaculus jaculus</i>	common in sandy habitat	x	x
African Hammada Jerboa	<i>Jaculus hirtipes</i>	difficult to ID		x
Greater Egyptian Jerboa	<i>Jaculus orientalis</i>	frequently in North		x
North African Gerbil	<i>Gerbillus campestris</i>	frequently in North		x
Pleasant Gerbil	<i>Gerbillus amoenus</i>	Erg Chebbi		x
Lesser Egyptian Gerbil	<i>Gerbillus gerbillus</i>	sandy habitats	x	
Pygmy Gerbil	<i>Gerbillus henleyi</i>	Mauritania	x	
Hoogstraal's Gerbil	<i>Gerbillus hoogstraali</i>	Sous Massa: 30.0538941924, - 9.6909299847	x	
Tarabul's Gerbil	<i>Gerbillus tarabuli</i>	sandy habitats	x	x
Sundevall's Jird	<i>Meriones crassus</i>	putative, widespread, but local		x
Libyan Jird	<i>Meriones libycus</i>	putative, widespread, but local		x
Shaw's Jird	<i>Meriones shawi</i>	widespread, but local. Only species in North		x
Fat-tailed Jird	<i>Pachyuromys duprasi</i>	never common	x	x
Fat Sand Rat	<i>Psammomys obesus</i>	frequently	x	x
Long-tailed Field Mouse	<i>Apodemus sylvaticus</i>	Ifrane		x
House Mouse	<i>Mus musculus</i>	Mauritania		x
Western Mediterranean Mouse	<i>Mus spretus</i>	frequently in North	x	x
Common Gundi	<i>Ctenodactylus gundi</i>	near Errachidia: 32.1576966055, - 4.3636399817	x	
Felou Gundi	<i>Felovia vae</i>	Mauritania: Several places	x	
African Savanna Hare	<i>Lepus microtis</i>	Western Sahara	x	
Lepus schlumbergeri	<i>Lepus schlumbergeri</i>	locally common in South		x
Lepus mediterraneus	<i>Lepus mediterraneus</i>	locally common in North	x	x
European Rabbit	<i>Oryctolagus cuniculus</i>	locally common in North	x	
North African Hedgehog	<i>Atelerix algirus</i>	locally common in North	x	x
Gaisler's Long-eared Bat	<i>Plecotus gaisleri</i>			x
Blasius's Horseshoe Bat	<i>Rhinolophus blasii</i>		x	x
Greater Horseshoe Bat	<i>Rhinolophus ferrumequinum</i>			x
Lesser Horseshoe Bat	<i>Rhinolophus hipposideros</i>			x
Mediterranean Horseshoe Bat	<i>Rhinolophus euryale</i>			x
Geoffroy's Trident Leaf-nosed Bat	<i>Asellia tridens</i>			x
Sundevall's Leaf-nosed Bat	<i>Hipposideros caffer</i>	Sous Massa with guide	x	
Lesser Mouse-tailed Bat	<i>Rhinopoma hardwickii</i>		x	x
Greater Mouse-tailed Bat	<i>Rhinopoma microphyllum</i>		x	x
Egyptian Free-tailed Bat	<i>Tadarida aegyptiaca</i>	Mauritania	x	

European Free-tailed Bat	<i>Tadarida teniotis</i>		x	x
Kuhl's Pipistrelle	<i>Pipistrellus kuhlii</i>		x	x
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>		x	x
Western Barbastelle	<i>Barbastella barbastellus</i>			x
Hemprich's Desert Bat	<i>Otonycteris hemprichii</i>			x
Savi's Pipistrelle	<i>Hypsugo savii</i>			x
Maghrebian Myotis	<i>Myotis punicus</i>			x
Zenati myotis	<i>Myotis zenatius</i>			x
Schreibers's Long-fingered Bat	<i>Miniopterus schreibersii</i>			x
Meghreb Bent-wing	<i>Miniopterus maghrebensis</i>			x
African Wildcat	<i>Felis lybica</i>	Mauritania, Western Sahara	x	
Common Genet	<i>Genetta genetta</i>	Mauritania; 1x Morocco South	x	x
African Wolf	<i>Canis lupaster</i>	widespread, locally common	x	x
Rüppell's Fox	<i>Vulpes rueppellii</i>	desert, locally common	x	x
Red Fox	<i>Vulpes vulpes</i>	widespread, locally common	x	x
Fennec Fox	<i>Vulpes zerda</i>	desert, locally common	x	x
Saharan Striped Polecat	<i>Ictonyx libyca</i>	Western Sahara	x	
Honey Badger	<i>Mellivora capensis</i>	Western Sahara	x	
Wild Boar	<i>Sus scrofa</i>	locally common in East and North	x	x
Barbary Sheep	<i>Ammotragus lervia</i>	Auberge Le Festival Todra Gorge		x
Short-beaked Common Dolphin	<i>Delphinus delphis</i>	few times ferry		x
Long-finned Pilot Whale	<i>Globicephala melas</i>	2x ferry		x
Striped Dolphin	<i>Stenella coeruleoalba</i>	few times ferry	x	x
Bottlenose Dolphin	<i>Tursiops truncatus</i>	2x ferry, 1x Dhakla Bay	x	x
Sperm Whale	<i>Physeter catodon</i>	2x ferry		x
Cuvier's Beaked Whale	<i>Ziphius cavirostris</i>	1x ferry		x

### **Amphibians and Reptiles**

Species name	latin	remarks	Trip 1	Trip 2
<b>Reptiles</b>				
Mediterranean Turtle	<i>Mauremys leprosa</i>	2x in Morocco, 33.7331904901, - 6.9675263021 34.0356352533, - 2.1586949868	x	x
Greek Tortoise	<i>Testudo graeca</i>	1x Northern Morocco		x
Desert Horned Viper	<i>Cerastes cerastes</i>	1x W-Sahara, road N3 to Aousserd 1x in dried out water basin north of Merzouga	x	x
Sahara Sand Viper	<i>Cerastes vipera</i>	1x W-Sahara, road N3 to Aousserd		x
Moila Snake	<i>Malpolon moilensis</i>	1x W-Sahara, road N3 to Aousserd		x

Western Montpellier Snake	<i>Malpolon monspessulanus</i>	1x east of Nador		x
Awl-headed Snake	<i>Lytorhynchus diadema</i>	1x W-Sahara, road N3 to Aousserd	x	
Common Chameleon	<i>Chamaeleo chamaeleon</i>	1x W-Sahara, road N3 to Aousserd	x	
Boulenger's Agama	<i>Agama boulengeri</i>	Several at Ouadane, Mauretania	x	
Bibron's Agama	<i>Agama bibronii</i>	1x near Tiznit, Morocco 1x near Figuig, Morocco	x	x
Sudan Mastigure	<i>Uromastix dispar ssp. flavifasciata</i>	1x W-Sahara, road N3 to Aousserd	x	
Moroccan Spiny-tailed Lizard	<i>Uromastix nigriventris</i>	Several, north of Figuig		x
Helmethead Gecko	<i>Tarentola chazaliae</i>	many between Dakhla and Agadir	x	
Ringed Wall Gecko	<i>Tarentola annularis</i>	3x W-Sahara, road N3 to Aousserd	x	
Sierra Leone Wall Gecko	<i>Tarentola parvicarinata</i>	1x near Atar, Mauretania	x	
Moorish Gecko	<i>Tarentola mauritanica</i>	common, at many places in Morocco	x	x
Desert Wall Gecko	<i>Tarentola desert</i>	1x in Cave in southern Morocco		x
Elegant Short-fingered Gecko	<i>Stenodactylus sthenodactylus</i>	very common in the Western Sahara and Mauritania	x	
Anderson's Short-fingered Gecko	<i>Stenodactylus petrii</i>	2x in Mauritania, first night on the N2 and north of Ouadane	x	
Northern Elegant Gecko	<i>Stenodactylus mauritanicus</i>	2 x on the way back north from Dakhla	x	
Algerian Sand Gecko	<i>Tropicolotes algericus</i>	1x near Oued Karaa, Morocco	x	
Harris Gecko	<i>Saurodactylus harrisii</i>	1x near Sidi Ifni, Morocco	x	
Brosset's Lizard-fingered Gecko	<i>Saurodactylus brosetti</i>	1x Souss-Massa, Morocco	x	
Duméril's Fringe-fingered Lizard	<i>Acanthodactylus dumerilii</i>	several near Aousserd, 1x Ouadane	x	
Golden Fringe-fingered Lizard	<i>Acanthodactylus aureus</i>	a couple around «Dakhla Attitude» near Dakhla, Western Sahara	x	
Bosc's Fringe-toed Lizard	<i>Acanthodactylus boskianus</i>	1x between Merzouga and Tinghir 31.5886743894, - 4.7662385264		x
Desert Lacerta	<i>Mesalina guttulata</i>	1x between Merzouga and Tinghir 31.454792, - 5.222722		x

Dumeril's Wedge-snouted Skink	<i>Chalcides sphenopsiformis</i>	1x W-Sahara, road N3 to Aousserd	x	
Desert Monitor	<i>Varanus griseus</i>	Several dead ones in dried out water basins north of Merzouga		x
<b>Amphibians</b>				
African Green Toad	<i>Bufoetes boulengeri</i>	several ind. at 23.6133, -15.72323	x	x
Mauritanian Toad	<i>Sclerophrys mauritanica</i>	Several places in Morocco		x
Sahara Frog	<i>Pelophylax saharicus</i>	Widespread at places with water	x	x
Mediterranean Tree Frog	<i>Hyla meridionalis</i>	1x North of Taza		x
North African Fire Salamander	<i>Salamandra algira</i>	Many in cave north of Taza		x

### **Birds**

Although we all come from a birding background and thoroughly enjoy it, birding was not the main focus of this trip. Nevertheless, we managed to see some incredible species like Hooded Vulture, Sudan Golden Sparrow, Blue-naped Mousebird, Cricket Longtail, Northern Bald Ibis, Black-crowned Tchagra, Dunn's lark, Thick-billed Lark, West African Crested tern, Black Scrub Robin and Grey-hooded Gull, to name a few. Overall, we saw 209 species. For more details look at eBird or iNaturalist.