# Trip report: Birding and Mammal Watching in Jordan, December 2018

With notes how to see more species in spring, during migration and suggestions for a combination with a visit to Israel

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## Abstract

Trip report about birding and mammal watching in December 2018 in Jordan. We visited the country for 10 days and covered all major hotspots. Due to winter season we missed a lot of species that can potentially be found in Jordan. To make this report as relevant as possible, tables, lists and texts are provided with information about these species in spring or during migration time. Comparisons with the – amongst birders – more popular destination of Israel are also given. Jordan is a wonderful country to observe birds and mammals and we can recommend it to any fanatic birder or mammal watcher, either as a winter break or as a hotspot for migration watching! Best species amongst others: Blanford's Fox, Striped Hyena, Basalt Wheatear, Crested Honey-Buzzard, Nubian Nightjar, Sinai Rosefinch, Syrian Serin, Dead-Sea Sparrow.

Photos by Daan Drukker (DD) and Jurriën van Deijk (JvD), front page:

- Basalt Wheatear (DD), between Azraq and Safawi
- Blanford's Fox (JvD), Mujib reserve

## Introduction

Jurriën van Deijk, Ruben Vermeer and I decided to escape the Dutch winter from 5 to 16 December 2018. Since we visited Morocco before, we wanted to bird the South Eastern side of the WP as well. Israel is in that case the obvious choice, but we wanted to do a little bit more pioneering type of birding and mammal watching, so the cheap tickets from Brussels to Amman were a good trigger to go to the adjacent Jordan. We certainly do not regret this choice, if only because of the amazing landscapes and wonderful people.

Our target list contained numerous East Mediterranean and Arabian specialties (see table 1) from various species groups. Birds had our main focus, followed by mammals and then fish, aquatic insects and Lepidoptera. To cover such a wide variety of species, we brought a lot of gear which was in general no problem for the customs at the airport and the local police. Our telescopes were an exception though. They caused us about an hour of delay at a local customs station between Aqaba and Wadi Arabah. We recommend to cover optics as much as possible to prevent these problems. At other local customs stations the optics were no problem.

List of gear:

- 2 telescopes
- Bins and cameras with tele lenses
- Go pro and underwater camera for snorkling
- 2 Nitecore p30 torches
- 2 adapters made by Jurriën and his dad to attach the torches to our telelenses so we could photograph nocturnal animals (see fig 1)
- Walkie talkies
- -

### Figure 1: telelens with torch attached

#### How to use this report

In this report I will give a short chronological overview of our journey, as well as several lists, tables and links to observation.org. We recorded almost every animal we saw, resulting in more than 1100 observations on jordan.observation.org. Remarkable observations are usually accompanied with photographic evidence or sound recording. Questions or comments on observations can be mailed to me or my friends. A map of our observations plotted in 1x1 km squares can be found in figure 2.

The best way to use this report is to make your own target list based on our target list and total observed species list prior to departure. For your own target species, you can make a spreadsheet and copy the GPS-coordinates that can be found in our observations on jordan.observation.org. For many **target species we even included GPS-coordinates in the list** in this report and these are complemented with coordinates in the chronological report of places where we searched, but could not find the species. These can be directly used offline as well.

Our total species list can be found in appendix 1 and 2 and also in the <u>following link to</u> <u>jordan.observation.org</u>, where you can click further to any species and any observation accompanied with exact GPS coordinates, date and time, making it possible to check



everything we saw and/or what we have written in this report. You can also plot the GPScoordinates of our observations in apps like MAPS.ME or OsmAnd+ to navigate to the sites.

The photos of our trip so far can be found <u>here</u>, with all background data attached (more might be added after publication of this report).

All photos from Jordan (including those of Marcel Klootwijk in September 2018) can be found <u>here</u>, while <u>this link refers to only the bird photos</u>

## Target species

Here several tables can be found regarding interesting species that – in theory – can be found in Jordan, both birds and mammals. In table 1a. an overview is given of interesting bird species. "Interesting" is loosely defined by me as species that are either new to one of us, complemented either with species that are typical for the region or with desert species that we already saw in Morocco. In red the species are noted that we have not seen. The reason could be the time of year, the absence of recent observations in Jordan, or simply because we could not find them (only the case in Desert Owl and Long-Billed Pipit). In the note section, tips are given on how to find them anyway. In green interesting species are given that we did see. Dark green indicates that the species was new to at least one of us.

Table 1b. is a similar table for the mammals, but in this case it is split up in a section with the species that we saw (in **dark** green) and a list of larger mammals that should be possible to find but not seen by us (in **red**). Note that many species that we missed are easier to find in Israel. The species in dark grey were not seen alive (only as burrow or loose spines).

In total we saw 133 + 5 exotic bird species. For taxonomy we followed IOC (birds) and IUCN (mammals). For some taxa however we decided to treat them as full species following Shirihai & Larsson (2018) for the sake of giving them attention. This concerns the nominate of Scrub Warbler (Scotocerca inquieta), Arabian Dunn's Lark (Eremalauda eremodites), Eastern Mourning Wheatear (Oenanthe lugens) and Basalt Wheatear (Oenanthe warriae). This affects us because we saw the Saharan Scrub Warbler (S. saharae), African Dunn's Lark (E. dunni) and Maghreb Wheatear (O. halophila) in North Africa making Scrub Warbler, Eastern Mourning Wheatear and Basalt Wheatear potential new species for us and making Arabian Dunn's Lark a dip.

Other taxonomic issues are relevant as well, concerning chiffchaffs (*Phylloscopus collybita*group), gulls (*Larus cachinnans, barabensis, heuglini, armenicus* and possibilities for michahelis, fuscus), black redstarts (*Phoenicurus ochruros/phoenicuroides/semirufus*) and wildcats (*Felis lybica* or *F. sylvestris lybica*). The chiffchaffs we observed in Jordan were mainly calling like *tristis*, which appears to happen a lot in the middle east. Only a small percentage called like *collybita*. Their plumage ranged from European style olive green to brownish capped with white eyebrow like *lorenzii*. See Svensson et al. (2010) and Pettersson et al. (2011). Of the large white-headed gulls we saw *armenicus, barabensis, heuglini, cachinnans* and possibly intergrades, but the other taxa can be expected too, especially during migration. We mainly saw Western Black Redstarts wintering, but at Wadi Rum we also had a red bellied *semirufus-type*.

1a. COMMON NAME	SCIENTIFIC NAME	SEASON	LOCATION	NOTES ON SPECIES WE COULD NOT FIND
Lesser White fronted goose	Anser erythropus	Vagrant		vagrant at ABO apparantly left the site to Israel
Chukar Partridge	Alectoris chukar	AY	common	
Sand Partridge	Ammoperdix heyi	AY	Dana; Petra; Mujib	
			Baptism Site, 31.838,	
Black Francolin	Francolinus francolinus	AY	35.568	should be nessible by sheeling more suitable places around
Striated heron	Butorides straita	AY		should be possible by checking more suitable places around Aqaba
Western Reef Heron	Egretta gularis	AY	Aqaba	
Brown Booby	Sula leucogaster	м		more chance during migration
Crested Honey Buzzard	Pernis ptilorhynchus	w	Aqaba, 29.573, 34.988	4 individuals together around Aqaba bird reserve
Steppe Eagle	Aquila nipalensis	W + M	Wadi Rum; Southern deserts	
Verreaux's Eagle	Aquila verreauxii	AY		Last observation in Wadi Rum. Maybe with more time?
Bonelli's Eagle	Aquila fasciata	AY	Dana	
Macqueen's Bustard	Chlamydotis macqueenii	AY		probably extinct in the wild in Jordan
Spur-winged Lapwing	Vanellus spinosus	AY	common	
White-eyed Gull	Ichthyaetus Ieucophthalmus	AY	Aqaba	
Pallas's Gull	Ichtyaetus melanocephalus	м		more chance during migration
Sooty Gull	Ichtyaetus hemprichii	м		more chance during migration, also in Israel very rare
Armenian Gull	Larus armenicus	AY		Several individuals at the South Beach of Aqaba
White-cheeked Tern	Sterna repressa	м		more chance during migration
Bridled Tern	Onycgoprion anaethetus	м		more chance during migration
Lichtenstein's Sandgrouse	Pterocles lichtensteinii	AY		only recently seen for the first time at Aqaba Bird Observatory
Pin-tailed Sandgrouse	Pterocles orientalis	AY		should be possible around Azraq
Desert Owl	Strix hadorami	AY		all known sites from this century not successful. Check more wadis or prepare with locals
Pallid Scops Owl	Otus brucei	AY		should be possible in winter in acacia's of Wadi Arabah judging from the Israeli observations
Nubian Nightjar	Caprimulgus nubicus	AY	Fifa (exact location only accessible with army and RSCN permission)	more and more active in spring
White-throated Kingfisher	Halcyon smyrnensis	AY	Jordan Rift Valley; Aqaba	
Pied Kingfisher	Ceryle rudis	AY	North; Aqaba	
Green Bee-eater	Merops orientalis	AY	common from Dead Sea Southward	
Sooty Falcon	Falco concolor	M + S		present from March to beginning of November in Wadi Rum
Masked Shrike	Lanius nubicus	M + S		more chance during migration
Fan-tailed Raven	Corvus rhipidurus	AY	Dead Sea; Petra	
Greater Hoopoe-Lark	Alaemon alaudipes	AY	Eastern deserts	
Desert Lark	Ammomanes deserti	AY	Eastern deserts	
Bar-tailed Lark	Ammomanes cinctura	AY	Eastern deserts	
Oriental Skylark	Alauda gulgula	?		observations in Israel, but not yet known from Jordan

#### Table 1: Target species that occur in Jordan. See text for legend.

1a. COMMON NAME	SCIENTIFIC NAME	SEASON	LOCATION	NOTES ON SPECIES WE COULD NOT FIND
Bimaculated Lark	Melanocorypha bimaculata	AY		look for more suitable habitat and perhaps more chance during migration
Dunn's Lark	Eremalauda dunni	AY		nomadic, could not find any
Temminck's Lark	Eremophila bilopha	AY	Eastern deserts	
White-spectacled Bulbul	Pycnonotus xanthopygos	AY	common	
Pale Crag Martin	Ptyonoprogne obsoleta	AY	common from Dead Sea Southward	
Streaked Scrub Warbler	Scotocerca inquieta	AY	common from Dead Sea Southward	
Graceful Prinia	Prinia gracilis	AY	common	
Clamorous Reed Warbler	Acrocephalus arundinaceus	AY		breeds very close to Palestine border. Should be easier in spring. We heard some calls but could not completley rule out other reed warblers
Eastern Olivaceous Warbler	Iduna pallida	M + S		more chance during migration
Upcher's Warbler	Hippolais languida	M + S		more chance during migration
Arabian Babbler	Turdoides squamiceps		Dana, 30.676, 35.593	
Arabian Warbler	Sylvia leucomelaena		Aqaba, 29.478, 35.071	Should also be possible in Wadi Arabah
Asian Desert Warbler	Sylvia nana		Shaumari	
Menetries's Warbler	Sylvia mystacea	M + S		more chance during migration
Rüppell's Warbler	Sylvia ruppeli	M + S		more chance during migration
Cyprus Warbler	Sylvia melanothorax	M + S		more chance during migration
			common from Dead	
Tristram's Starling	Onychognathus tristramii		Sea Southward	
Black Scrub Robin	Cercotrichas podobe	Vagrant		often wintering individuals around Aqaba, but we could not find any
White Thrroated Robin	Irania guttularis	М		more chance during migration
Isabelline Wheatear	Oenanthe isabellina		Wadi Arabah	
Hooded Wheatear	Oenanthe monacha		Aqaba, 29.425, 34.974	
Desert Wheatear	Oenanthe deserti		Eastern deserts	
Blackstart	Oenanthe melanura		common from Dead Sea Southward	
Cyprus Wheatear	Oenanthe cypriaca	М		more chance during migration
White-crowned Wheatear	Oenanthe leucopyga		widespread	
Finsch's Wheatear	Oenanthe finschii		widespread in North and Eastern deserts	
Basalt Wheatear	Oenanthe warriae		Basalt desert, 32.099, 37.026	Only seen one
Mourning Wheatear	Oenanthe lugens		common from Dead Sea Southward	
Palestine Sunbird	Cinnyris osea		common	
Dead Sea Sparrow	Passer moabiticus		Fifa, 31.004, 35.460	
Rock Sparrow	Petronia petronia		Rift highlands	
Pale Rockfinch	Carpospiza brachydactyla	M + S		look for singing males in spring
Long-billed Pipit	Anthus similis	AY		should be present around Mujib and further North, but we could not find this species
Water Pipit	Anthus spinoletta coutelli	I	common	

1a. COMMON NAME	SCIENTIFIC NAME	SEASON	LOCATION	NOTES ON SPECIES WE COULD NOT FIND
Sinai Rosefinch	Carpodacus synoicus		Petra, 30.336, 35.437; Wadi Rum, 29.562, 35.425	
Desert Finch	Rhodospiza obsoleta		Aqaba, various beaches in the morning	
Syrian Serin	Serinus syriacus		Dana, 30.674, 35.590	
Striolated Bunting	Emberiza striolata		Dead Sea, e.g. 31.538, 35.559	

1b. COMMON NAME	SCIENTIFIC NAME	NOTES ON MAMMALS
Lesser Egyptian Jerboa	Jaculus jaculus	At night in Eastern Deserts, near Shaumari, or further East e.g. 31.712, 37.139
Lesser Blind Mole Rat	Spalax leucodon	only burrows
Crested Porcupine	Hystrix cristata	twice only a spine, apparantly easier in Israel
Cape Hare	Lepus capensis	only seen in Fifa: 30.931, 35.425
African Wildcat	Felis lybica	seen at daytime in Shaumari
Striped hyena	Hyaena hyaena	spotlighted at Mujib: 31.603, 35.606
Golden Jackal	Canis aureus	only auditive observations around Rasun near Ajloun (32.400, 35.734)
Blanford's's Fox	Vulpes cana	spotlighted at Mujib: 31.605, 35.571
Red Fox	Vulpes vulpes	common
Onager	Equus hemionus onager	Reintroduction at Shaumari
Arabian Sand Gazelle	Gazella marica	Reintroduction at Shaumari
Arabian Oryx	Oryx leucoryx	Reintroduction at Shaumari
LARGER MAMMALS	POSSIBLE BUT NOT SEEN	
Egyptian Fruit Bat	Rousettus aegyptiacus	should be possible around Aqaba
Wolf	Canis lupus	hunted, known stakeouts in Israel
Sand Fox	Vulpes rueppellii	should be possible in sand and basalt deserts
Caracal	Caracal caracal	should be possible on various locations around Jordan. Recent observations come from the Petra region and Shaumari e.g.
Jungle Cat	Felis chaus	known from the North, known stakeouts in Israel
Sand Cat	Felis margarita	probably rare, south side of Jordan
Egyptian Mongoose	Herpestes ichneumon	should be possible in Jordan, check vicinity of chicken farms
Honey Badger	Mellivora capensis	should be possible in Jordan
Marbled Polecat	Vormela peregusna	apparantly getting more common at the beginning of the century
Нугах	Procavia capensis	despite intensive searching in Yarmuk and Wadi Rum not found. Known stakeouts in Israel
Nubian Ibex	Ibex nubiana	not found at Mujib, Dana and Wadi Rum, where they should occur. Check with locals or go to stakeouts in Israel
Dorcas Gazelle	Gazella dorcas	hunted, known stakeouts in Israel
Mountain Gazelle	Gazella gazella	hunted, known stakeouts in Israel

## Itinerary and preparation



Our route can be found on the map in fig. 2 and the main birding hotspots in fig. 4. Jordan is a very relaxed country and travelling was generally no problem. We mainly stayed in hotels. Price ranges differed quite a lot (range between 35 and 120 JD for three persons per night). With some preparation one should be able to find fairly cheap hotels almost everywhere, though at some places the more expensive option can be more convenient for birding. We travelled with a rental car (Chervolet Cruze). A four-wheel drive would have had several advantages (e.g. in Wadi Rum or during spotlighting), but most of the time we were able to manage with this sedan.

Figure 2: observations (red 1x1 km squares) and route (yellow line)



Figure 3: Palestine Sunbird (JvD), Mujib reserve

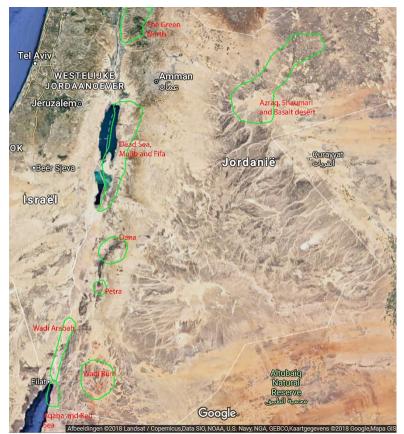


Figure 4: hotspot areas in Jordan

## Chronological report

December 5: northern Jordan (Ajloun forest)

Our trip had a slow start in terms of birds as we took off in the densely populated North. At the Ajloun forest reserve we had some good species for the trip list, the best being **Syrian Woodpecker** and the Levant subspecies of **Jay** (ssp. atricapilla). At night we had nothing of real interest in the light of our torches, but we did hear our only **Golden Jackals** of the trip on two occasions, including at our campsite of Rasun.

December 6: Northern Jordan (Yarmuk and Northern Jordan valley)

On our first full day, our first lifers were found, such as **Graceful Prinia** (common) and the two kingfisher species (**Pied** and **White throated**) in the green North close to the Golan and Syrian border at the Yarmuk reserve. Due to the rain we could

not find a colony of hyraxes that was supposed to be at Al Adassyiah (Amr et al., 2000). Engine failure delayed us even more, so at the end of the day we drove towards the Dead Sea to stay at the Mujib chalets, without having been able to explore the North any further.

#### December 7: Northern Dead Sea

Now we really got started. The rain had disappeared at the negative altitudes of the Dead Sea and the temperature was pleasant. Tristrams Starlings, Fan-tailed Ravens, Green Bee-eaters and Palestine Sunbirds started our day. It was a surprise to find quite some Striolated Buntings in the wadis and bushes while we were looking for Dead Sea sparrows. The latter species is becoming quite rare on the Jordan side of its range, so we had to step up our game. A good spot from the past in the northeast had turned into a huge hotel complex (31.755, 35.591), so the only options in the North we were left with, were the options of the Baptism site and the wadi upstream. Where the wadi crossed the road (31.828, 35.586) we did not find dead sea sparrows, but the birding was good with Namagua Doves, Spur-winged Lapwings, Red throated Pipits and coutelli Water Pipits. We read that the only place where Royle (2011) had seen the dead sea sparrows was at a guided tour at the Baptism site. However, we did not feel like doing that as we could not bird on our own. We challenged our luck by going to the site anyway without tickets for the guided tour and that turned out to be very productive! You can drive on the access road until almost at the end and there are several good spots to do birding. We found a spine of a Crested Porcupine but the best surprise was a **Black Francolin** we flushed! A species that is very rarely recorded in Jordan. At the end of the road we were sent back to the ticket office, so we were

still without Dead Sea Sparrows. We had to save those for the next day. In the last light we searched in vain for Long Billed Pipits near the hot springs of Ma'in (e.g. 31.631, 35.621). The day was far from over though, because we had found a nice road on the map into the Mujib mountains. After dinner we started spotlighting. The first eyes we saw were on a steep slope and belonged to a fox. With the naked eye a large tail with black tip was visible! With racing heartbeats I raised my binoculars and we saw a most wanted **Blanford's Fox!** Jurriën even managed to get decent photographs. During the rest of the spotlighting we mainly saw **Red Foxes**, but near the end we had **Striped Hyena** as well! Two of our most wanted mammal predators in one trip.



Figure 5 and 6: Striped Hyena (DD) and Blanford Fox (JvD), Mujib reserve

#### December 8: Southern Dead Sea and Ghor

In the evening of the 8th, we had arranged to meet with Abdullah Al-Oshoush of the Royal Society for the Conservation of Nature (RSCN) to look for Nubian Nightjar at the Fifa reserve. First we decided to look for Dead Sea Sparrows at the buffer zone of the park. This was in vain, but In spring, this should be the place to be, as 1200 nests have been counted in the vicinity (30.997, 35.456). We did see them finally in the afternoon a little further with the guys of the RSCN. After tea they took us in their four-wheel drive to the buffer zone of the reserve, where we were finally able to find **Dead Sea Sparrows** in a mixed flock of Silverbills and Spanish Sparrows. Other observations included a handsome White-throated Kingfisher. After this we really experienced the Jordan hospitality, as we went to buy two fresh chickens for dinner, had tea with the manager of Fifa reserve and his family at the campfire and then took off to search for Nubian Nightjar! Despite a search of two hours, we only had brief observations of a calling bird (which I managed to record badly), but the species was in the pocket. Apparently in April as much as 20 individuals can be recorded in this reserve, so it is recommended to visit the area in spring. After a good search we finished with a delicious meal of roasted chicken and vegetables on a self-made barbecue with Abdullah, the manager of Fifa Ibrahim and the colleagues of the RSCN. A very cool experience.



Figure 7: Dead Sea Sparrow (and Spanish Sparrow) (DD), Fifa reserve



Figure 8: Bonelli's Eagle with Chukar (DD), Dana

#### December 9: Dana

Dana is the place to look for **Syrian Serin** in Jordan, so that is what we did. First we went down the steep path into wadi Dana. In the valley the Serins were hard to find. We only had brief views of several birds flying by. Other observations included our only **Arabian Babblers**, **Sand Partridges**, some cooperative **Eastern Mourning Wheatears** and cool lizards and invertebrates. Most spectacular was a **Bonelli's Eagle** that caught a **Chukar**  right in front of us! The climb back up brought two of us a sunstrike, so we recommend to first search in the Barra forest (30.651, 35.609) where the serins are also regularly seen, though we could not find them there in the afternoon. Another option is to walk down the Wadi Dana and arrange that you can be picked up by car at the end. Check with local tourism sites in Dana village. In the evening we tried for Desert Owl that used to breed here, at least in the nineties (Andrews, 1995). We could not hear any owls and spotlighting was not successful either. We searched the higher parts of wadi Dana, so one might be more successful further down (but prepare to go on a steep climb back up).

#### December 10: Wadi Rum and Aqaba

Being sick of the cold air, we decided to go South and save Petra for the way back. We first made a stop at the famous Wadi Rum, but this turned out to be a deception, except for the **Steppe Eagles** along the road to Wadi Rum. Tourists were few, so it seemed that all the Bedouins focussed on us, which was really pushy and annoying. We could not find hyraxes, Nubian ibexes or hooded wheatear, let alone the enigmatic Verreaux Eagle (last seen here a long time ago). The only cool birds were a **semirufus Black Restart** and our first, but distant, **Sinai Rosefinch**. We recommend to prepare Wadi Rum in advance, maybe to arrange a four-wheel drive for a night drive as the list of interesting mammal species is exciting (Amr et al., 2000). We soon left for Aqaba which was a lot more pleasant. However, we forgot to pay a visit to the Disi pools, which could be interesting especially during migration. At sunset we saw our first **White-eyed Gulls** and a lot of other interesting gulls that need some study before they can be identified.

#### December 11: Aqaba

We started our day at the Aqaba Bird Observatory (ABO), a quite recent site consisting of water treatment ponds. This site has proven to be a magnet for rare birds in the past. It is very close to the Israeli border, so you have to submit your passport to the military control, which they keep in exchange for a card. The entrance fee at the visitor centre a little further at the start of the observatory is 8 JD per person. Well worth it, because we found a lot of winter migrants, including scarcities such as **Citrine Wagtail** and **Blue-cheeked Bee-eaters**. The biggest surprise however, was when we arrived in the morning and saw several larger raptors in the trees. One individual

flew a short distance and the tail bands were noted: Crested Honeybuzzards! The birds proved to be quite cooperative and we could have excellent views of the various plumages, before they took off towards a date plantation in Israel. After this excellent start of the day we wanted to go to Wadi Arabah to look for Arabian Warbler and Hooded Wheatear, maybe stumbling upon a Pallid Scops Owl. However, in Jordan some things are not as straight forward as one might expect, because when we had to open our trunk at a routine control leaving



Figure 9: Crested Honeybuzzard (JvD), ABO

Aqaba northward, our telescopes were noted and the military police thought they were very strange. After a whole hour of talking and discussing they came to the conclusion that we were not a threat to the National security and we could finally continue. We were aware that the military is a bit jumpy with birders birding on the west side of the road, so we neatly checked all wheatears on the east side until we found decent looking acacias for Arabian Warbler. We turned around to check an Isabelline Wheatear first, but when we wanted to continue a military vehicle stopped us to check what we were doing. At that point we were fed up with all the trouble and the soldier did not speak a word of English, so we just went back to Agaba. The Jordanians are the friendliest people I ever encountered, but the military is a bit too much hassle. On the way back we were even escorted by the armed military vehicle, while every control tower followed our every move. It was time to snorkel in the Red Sea. While we were walking from the hotel to the beach we, suddenly saw a Hooded Wheatear! The beach is apparently a good spot for this species, as Marcel Klootwijk was able to take good photos at the same spot in September 2018. One of the two missed species of wadi Arabah was in the pocket, tomorrow had to be the day for Arabian Warbler. But first snorkelling, which was yet another amazing experience, which we recommend to every nature observer visiting Jordan. The number of species is astonishing and the colours and forms of the fish as well. They are well identifiable using De koraalriffengids voor de Rode Zee/ Coral Reef Guide Red Sea (Lieske & Myers, 2012).

#### December 12: Aqaba

#### Figure 10: Fan-tailed Raven (DD), Petra

We spent quite some time at sea hoping for Arabian tern and maybe Brown Booby and other Indian Ocean goodies. However, the combination of December and northerly winds brought a quite empty sea. That is why our plan was to look for **Arabian Warbler** in the morning and snorkeling in the afternoon. For the warbler we went to the Aqaba Backroad



where Van Houtum et al. (2011) had discovered several individuals in March. We indeed found one individual in the first Acacia we checked on that location.

#### December 13: Aqaba and Petra

In the morning of our last day in Agaba we checked the shores of the Red Sea to add some waders to our trip list, also hoping for a last chance of a rare seabird. Luckily, we were surprised to find several flocks of **Desert Finches**! It is important to check the shores in the early morning, because most birds disappear when the beaches get crowded (even though the number of tourists was still relatively small). After breakfast it was time to visit the most touristic hotspot of Jordan and one of the seven modern world wonders: Petra, a city carved in stone by the Nabateans in ancient times. Very impressive, though our main interests were elsewhere: good views of Sinai Rosefinch and Desert Owl. We had some slightly better views of the finch than in Wadi Rum, but we knew that the owl could be more difficult, as it was not heard by anyone in the recent years. A tactic that has proven to be successful is to stay in Petra after closing time when it is getting dark. This is beautifully written down by The Sound Approach (2015) and Van Houtum et al., (2011). Staying in Petra after curfew went well, but we did not manage to hear the owls. The "Petra by night" preparations that are held every Thursday did not make

things easier, so two hours after sunset we had to leave the area. It could be that the owls at Petra are no longer doable, but if you try, make sure to have a lot of patience and make sure it is not on a Thursday! We should have looked for another suitable wadi, such as Stratford (2010), be it that we realised too late that he did not see them in Petra itself but 10 km further north.

#### December 14: Azraq and Shaumari

In the morning we took the eastern highway via Ma'an towards the Azrag oasis. This is formed by a depression in the large basalt desert that catches all the water flows, nicely visible on the satellite images (fig 4). We started in the afternoon at the Azrag wetland reserve, which was guite dull at this time of year, but did provide some new trip species. After that we decided to drive around the Shaumari reserve, which needs some introduction. In this reserve a number of threatened ungulates have been reintroduced and live there in almost wild conditions. The most important being the Arabian Oryx, which could not be found in the wild until recently. Others include Arabian Sand Gazelle, Onager and perhaps also Ostrich. The area is fenced, but passage ways for medium sized predators have been made, and species up to the size of Wolf and Caracal have been observed in the enclosure. When you see the vegetation in the park, you realise that the fence actually serves more as an exclosure to keep out the herds of goat, sheep and dromedary! It is saddening to realise the extreme damage that the livestock make to the desert, as within the enclosure a lush steppe is visible. We did not feel like going on the mandatory jeep excursion where we could not decide for ourselves where and when to stop. That is why we drove around the fence with our rental car and tried to observe the animals from the outside. This went remarkably well even without a 4 wheel drive on the gravelly and sandy road and it had the extra advantage that it felt much more wild and exciting, because the animals were not guaranteed. In the end we were able to observe all three ungulates, including amazing views of the Arabian Oryxes at sunset. A very nice bonus was an African Wildcat that sneaked through the steppe. Several **Pallid Harriers** were noted as well. That night it was finally time to spotlight again. We had found a road on the map eastward to a small oil field. It was bumpy and tarmac was rare, but it went straight through the desert. One of the first eyes that popped up gave only a weak reflection and turned out to be of a Pharaoh Eagle Owl! This was



Figure 11: Arabian Oryx (DD), Shaumari

surely an unexpected species, as no Bubo was ever encountered in this part of the Middle East. The rest of the session was hard work with few animals (4 **Red Foxes**), but as the night went on we were treated with **Lesser Egyptian Jerboas**, one of which was so confused by our lights, we could almost touch it.

#### December 15: Basalt

"It is restricted to the localised dark basalt lava patches of the Syrian deserts, and was formerly also found in Jordan in similar habitats, but recently has become very rare or extinct from there". These are the not so encouraging words given by Shirihai & Svensson (2018) in their recent Handbook of the Birds of the Western Palearctic regarding the Basalt Wheatear, which they elevated to species status in that same work. We are not easily giving up though, and so we tried our luck taking the parallel roads of the main road from Azrag to Safawi. As soon as the desert turned black we were startled by an all-black wheatear that turned out to be a White Crowned. This species formerly did not occur here and we found out later that Basalt Wheatear might be becoming rare in Jordan partially due to competition with this species (Hadoram Shirihai in litt.). We continued our way and were pleasantly surprised by the number of wheatears and larks all over the place. Stratford (2010) only saw birds once every 10 km, but we had much more luck with lots of White crowned, Finsch' and Desert Wheatears. The dark morph of Desert Lark (annae) was abundant and one light morph. Some **Bar-tailed** and **Hoopoo Larks** were also seen. Despite our very thorough checks of every dark crowned White-crowned Wheatear, we were not able to find one with an all dark tail band or magpie-like wing pattern. Until 10 km South of Safawi that is, because at that point we checked a non-shiny black wheatear. Suddenly it took off and when it landed it spread its tail. Bingo! We were able to observe one of the first recorded **Basalt** Wheatears in Jordan this century! (?). Whether this is a wintering individual from Syria or a local bird we cannot say of course, but the exact location can – as always – be found in our observations on observation.org, so if anyone wants to check if it's still there this spring, please do and let us know. Apparently one was also seen in winter 2017 somewhere in the Jordan basalt desert (see youtube). In the afternoon we birded around Shaumari again which provided **Bar**tailed and Hoopoo Larks. Very cool was the observation of a male Finsch' Wheatear that was obviously "followed" by our only Asian Desert Warbler of the trip. The behaviour is known and well-illustrated for Desert Wheatear by the famous Collins field guide e.g., but to our knowledge it was not known for other species of wheatear.



Figure 12 and 13: Pharaoh Eagle Owl (JvD), Eastern Deserts and Basalt Wheatear (DD), South of Safaw

#### December 16: back home

Nothing seen of interest during the washing of the car or the check-in at the airport. (text continues below)

## How to see more than us: birds

Step 1: go in March/April

Step 2: combine with Israel (apparently possible (Bram ter Keurs in litt), but not with our rental car)

Step 3: take more time looking for suitable habitat for owls and do more reading and preparation.

See table1a. where the best time of year is given for the target species. In cases we did not see a target species, tips are given for the future, or an indication for the possibility in Israel.

## How to see more than us: mammals

Whereas step 1 for birds is going in spring, the winter seems to be fine for seeing cool mammal species. Our advice is therefore: do more and ignore birds if you want to see more mammals (unless your body is able to go without sleep). Jordan is extremely suitable for spotlighting as nobody minds that you do it, while it is illegal in Israel. However, there are still a lot of reasons to combine a trip to Jordan with Israel, or go on separate trips, as many other species are very rare in Jordan due to excessive hunting. See table 1b. for comparison of Jordan and Israel. If you really want to step up your game, make sure to take life traps with you and look up places where caves are, checking preferably with local nature associations such as RSCN.

## Literature

For preparation we used the observations on jordan.observation.org, tripreports of ROyle (2011), Stratfort (2010) and Van Houtum et al. (2011), and some scans we received from Andrews (1995). The details can be found in the list below. Mind that many of these publications are old and that

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Van Houtum, N., Van Bemmelen, R. and Rijnbeek, S. (2011). Welcome to Jordanl. <u>Dutch Birding</u> <u>Website</u>

## Appendix 1: species list birds (IOC)

133 species in total excluding 5 exotics: Ring-necked Parakeet, Silverbill, House Crow, Common Myna, White-eared Bulbul. See also <u>here for updated list</u>

SCIENTIFIC NAME	COMMON NAME
Spatula querquedula	Garganey
Spatula clypeata	Northern Shoveler
Mareca strepera	Gadwall
Anas platyrhynchos	Mallard
Anas acuta	Northern Pintail
Anas crecca	Eurasian Teal
Aythya nyroca	Ferruginous Duck
Alectoris chukar	Chukar Partridge
Ammoperdix heyi	Sand Partridge
Francolinus francolinus	Black Francolin
Tachybaptus ruficollis	Little Grebe
Phoenicopterus roseus	Greater Flamingo
Ciconia nigra	Black Stork
Plegadis falcinellus	Glossy Ibis
Nuction ray puction and	Black-crowned Night
Nycticorax nycticorax	Heron
Bubulcus ibis	Western Cattle Egret
Ardea cinerea	Grey Heron
Ardea alba	Great Egret
Egretta garzetta	Little Egret
Egretta gularis	Western Reef Heron
Microcarbo pygmeus	Pygmy Cormorant
Phalacrocorax carbo	Great Cormorant
Pandion haliaetus	Western Osprey
Elanus caeruleus	Black-winged Kite
Pernis ptilorhynchus	Crested Honey Buzzard
	•
Aquila nipalensis	Steppe Eagle
Aquila nipalensis Aquila fasciata	Steppe Eagle Bonelli's Eagle
Aquila nipalensis Aquila fasciata Accipiter nisus	Steppe Eagle Bonelli's Eagle Eurasian Sparrowhawk
Aquila nipalensis Aquila fasciata Accipiter nisus Circus aeruginosus	Steppe Eagle Bonelli's Eagle Eurasian Sparrowhawk Western Marsh Harrier
Aquila nipalensis Aquila fasciata Accipiter nisus Circus aeruginosus Circus cyaneus	Steppe Eagle Bonelli's Eagle Eurasian Sparrowhawk Western Marsh Harrier Hen Harrier
Aquila nipalensis   Aquila fasciata   Accipiter nisus   Circus aeruginosus   Circus cyaneus   Circus macrourus	Steppe Eagle Bonelli's Eagle Eurasian Sparrowhawk Western Marsh Harrier Hen Harrier Pallid Harrier
Aquila nipalensis   Aquila fasciata   Accipiter nisus   Circus aeruginosus   Circus cyaneus   Circus macrourus   Milvus migrans	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite
Aquila nipalensis   Aquila fasciata   Accipiter nisus   Circus aeruginosus   Circus cyaneus   Circus macrourus   Milvus migrans   Buteo rufinus	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard
Aquila nipalensis   Aquila fasciata   Accipiter nisus   Circus aeruginosus   Circus cyaneus   Circus macrourus   Milvus migrans   Buteo rufinus   Buteo buteo	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard
Aquila nipalensis   Aquila fasciata   Accipiter nisus   Circus aeruginosus   Circus cyaneus   Circus macrourus   Milvus migrans   Buteo rufinus   Buteo buteo   Gallinula chloropus	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen
Aquila nipalensis   Aquila fasciata   Accipiter nisus   Circus aeruginosus   Circus cyaneus   Circus macrourus   Milvus migrans   Buteo rufinus   Buteo buteo   Gallinula chloropus   Fulica atra	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot
Aquila nipalensisAquila fasciataAccipiter nisusCircus aeruginosusCircus cyaneusCircus macrourusMilvus migransButeo rufinusButeo buteoGallinula chloropusFulica atraHimantopus himantopus	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt
Aquila nipalensisAquila fasciataAccipiter nisusCircus aeruginosusCircus yaneusCircus royaneusCircus macrourusMilvus migransButeo rufinusButeo buteoGallinula chloropusFulica atraHimantopus himantopusVanellus vanellus	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt   Northern Lapwing
Aquila nipalensisAquila fasciataAccipiter nisusCircus aeruginosusCircus cyaneusCircus macrourusMilvus migransButeo rufinusButeo buteoGallinula chloropusFulica atraHimantopus himantopusVanellus vanellusVanellus spinosus	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt   Northern Lapwing   Spur-winged Lapwing
Aquila nipalensisAquila fasciataAccipiter nisusCircus aeruginosusCircus cyaneusCircus macrourusMilvus migransButeo rufinusButeo buteoGallinula chloropusFulica atraHimantopus himantopusVanellus vanellusVanellus spinosusPluvialis squatarola	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt   Northern Lapwing   Spur-winged Lapwing   Grey Plover
Aquila nipalensisAquila fasciataAccipiter nisusCircus aeruginosusCircus cyaneusCircus macrourusMilvus migransButeo rufinusButeo buteoGallinula chloropusFulica atraHimantopus himantopusVanellus vanellusVanellus spinosusPluvialis squatarolaCharadrius hiaticula	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt   Northern Lapwing   Spur-winged Lapwing   Grey Plover   Common Ringed Plover
Aquila nipalensisAquila fasciataAccipiter nisusCircus aeruginosusCircus cyaneusCircus macrourusMilvus migransButeo rufinusButeo buteoGallinula chloropusFulica atraHimantopus himantopusVanellus vanellusVanellus spinosusPluvialis squatarolaCharadrius hiaticulaCharadrius alexandrinus	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt   Northern Lapwing   Spur-winged Lapwing   Grey Plover   Common Ringed Plover   Kentish Plover
Aquila nipalensisAquila fasciataAccipiter nisusCircus aeruginosusCircus cyaneusCircus macrourusMilvus migransButeo rufinusButeo buteoGallinula chloropusFulica atraHimantopus himantopusVanellus vanellusVanellus spinosusPluvialis squatarolaCharadrius hiaticulaCharadrius alexandrinusLimosa limosa	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt   Northern Lapwing   Spur-winged Lapwing   Grey Plover   Common Ringed Plover   Kentish Plover   Black-tailed Godwit
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Aquila nipalensisAquila fasciataAccipiter nisusCircus aeruginosusCircus cyaneusCircus macrourusMilvus migransButeo rufinusButeo buteoGallinula chloropusFulica atraHimantopus himantopusVanellus vanellusVanellus spinosusPluvialis squatarolaCharadrius hiaticulaCharadrius alexandrinusLimosa limosaCalidris minuta	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt   Northern Lapwing   Grey Plover   Common Ringed Plover   Kentish Plover   Black-tailed Godwit   Ruff   Little Stint
Aquila nipalensisAquila fasciataAccipiter nisusCircus aeruginosusCircus cyaneusCircus macrourusMilvus migransButeo rufinusButeo buteoGallinula chloropusFulica atraHimantopus himantopusVanellus vanellusVanellus squatarolaCharadrius alexandrinusLimosa limosaCalidris pugnaxCalidris minutaGallinago gallinago	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt   Northern Lapwing   Grey Plover   Common Ringed Plover   Kentish Plover   Black-tailed Godwit   Ruff   Little Stint   Common Snipe
Aquila nipalensisAquila fasciataAccipiter nisusCircus aeruginosusCircus cyaneusCircus macrourusMilvus migransButeo rufinusButeo buteoGallinula chloropusFulica atraHimantopus himantopusVanellus vanellusVanellus squatarolaCharadrius alexandrinusLimosa limosaCalidris pugnaxCalidris minutaGallinago gallinagoActitis hypoleucos	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt   Northern Lapwing   Spur-winged Lapwing   Grey Plover   Common Ringed Plover   Kentish Plover   Black-tailed Godwit   Ruff   Little Stint   Common Snipe   Common Sandpiper
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Aquila nipalensisAquila fasciataAccipiter nisusCircus aeruginosusCircus cyaneusCircus macrourusMilvus migransButeo rufinusButeo buteoGallinula chloropusFulica atraHimantopus himantopusVanellus vanellusVanellus squatarolaCharadrius alexandrinusLimosa limosaCalidris pugnaxCalidris minutaGallinago gallinagoActitis hypoleucosTringa ochropusChroicocephalus ridibundus	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt   Northern Lapwing   Spur-winged Lapwing   Grey Plover   Common Ringed Plover   Kentish Plover   Black-tailed Godwit   Ruff   Little Stint   Common Snipe   Common Sandpiper
Aquila nipalensis   Aquila fasciata   Accipiter nisus   Circus aeruginosus   Circus cyaneus   Circus macrourus   Milvus migrans   Buteo rufinus   Buteo buteo   Gallinula chloropus   Fulica atra   Himantopus himantopus   Vanellus squatarola   Charadrius alexandrinus   Limosa limosa   Calidris pugnax   Calidris minuta   Gallinago gallinago   Actitis hypoleucos   Tringa ochropus   Ichthyaetus	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt   Northern Lapwing   Spur-winged Lapwing   Grey Plover   Common Ringed Plover   Kentish Plover   Black-tailed Godwit   Ruff   Little Stint   Common Snipe   Common Sandpiper   Green Sandpiper   Black-headed Gull
Aquila nipalensisAquila fasciataAccipiter nisusCircus aeruginosusCircus cyaneusCircus macrourusMilvus migransButeo rufinusButeo buteoGallinula chloropusFulica atraHimantopus himantopusVanellus vanellusVanellus squatarolaCharadrius alexandrinusLimosa limosaCalidris pugnaxCalidris minutaGallinago gallinagoActitis hypoleucosTringa ochropusChroicocephalus ridibundus	Steppe Eagle   Bonelli's Eagle   Eurasian Sparrowhawk   Western Marsh Harrier   Hen Harrier   Pallid Harrier   Black Kite   Long-legged Buzzard   Common Buzzard   Common Moorhen   Eurasian Coot   Black-winged Stilt   Northern Lapwing   Grey Plover   Common Ringed Plover   Kentish Plover   Black-tailed Godwit   Ruff   Little Stint   Common Snipe   Common Sandpiper

SCIENTIFIC NAME	COMMON NAME
Larus michahellis	Yellow-legged Gull
Larus armenicus	Armenian Gull
Larus fuscus	Lesser Black-backed Gull
Hydroprogne caspia	Caspian Tern
Columba livia	Rock Dove
Streptopelia decaocto	Eurasian Collared Dove
Spilopelia senegalensis	Laughing Dove
Oena capensis	Namaqua Dove
Bubo ascalaphus	Pharaoh Eagle-Owl
Athene noctua	Little Owl
Caprimulgus nubicus	Nubian Nightjar
Apus pallidus	Pallid Swift
Apus affinis	Little Swift
Halcyon smyrnensis	White-throated Kingfisher
Alcedo atthis	Common Kingfisher
Ceryle rudis	Pied Kingfisher
Merops orientalis	Green Bee-eater
Merops persicus	Blue-cheeked Bee-eater
Upupa epops	Eurasian Hoopoe
Falco tinnunculus	Common Kestrel
Lanius excubitor	Great Grey Shrike
Garrulus glandarius	Eurasian Jay
Corvus cornix	Hooded Crow
Corvus ruficollis	Brown-necked Raven
Corvus rhipidurus	Fan-tailed Raven
Parus major	Great Tit
Alaemon alaudipes	Greater Hoopoe-Lark
Ammomanes deserti	Desert Lark
Ammomanes cinctura	Bar-tailed Lark
Lullula arborea	Woodlark
Galerida cristata	Crested Lark
Eremophila bilopha	Temminck's Lark
Pycnonotus leucotis	White-eared Bulbul
Hirundo rustica	Barn Swallow
Ptyonoprogne rupestris	Eurasian Crag Martin
Ptyonoprogne obsoleta	Pale Crag Martin
Scotocerca inquieta	Streaked Scrub Warbler
Phylloscopus collybita	Common Chiffchaff
Prinia gracilis	Graceful Prinia
Turdoides squamiceps	Arabian Babbler
Sylvia leucomelaena	Arabian Warbler
Sylvia nana	Asian Desert Warbler
Sylvia conspicillata	Spectacled Warbler
Sylvia melanocephala	Sardinian Warbler
Troglodytes troglodytes	Eurasian Wren
Sturnus vulgaris	Common Starling
Onychognathus tristramii	Tristram's Starling
Turdus merula	Common Blackbird
Turdus philomelos	Song Thrush
Erithacus rubecula	European Robin
Luscinia svecica	Bluethroat
Phoenicurus ochruros	Black Redstart

SCIENTIFIC NAME	COMMON NAME
Phoenicurus phoenicurus	Common Redstart
Monticola solitarius	Blue Rock Thrush
Saxicola rubicola	European Stonechat
Oenanthe isabellina	Isabelline Wheatear
Oenanthe monacha	Hooded Wheatear
Oenanthe deserti	Desert Wheatear
Oenanthe melanura	Blackstart
Oenanthe leucopyga	White-crowned Wheatear
Oenanthe finschii	Finsch's Wheatear
Oenanthe lugens	Mourning Wheatear
Cinnyris osea	Palestine Sunbird
Passer domesticus	House Sparrow
Passer hispaniolensis	Spanish Sparrow
Passer moabiticus	Dead Sea Sparrow
Petronia petronia	Rock Sparrow
Motacilla citreola	Citrine Wagtail
Motacilla alba	White Wagtail
Anthus pratensis	Meadow Pipit
Anthus cervinus	Red-throated Pipit
Anthus spinoletta	Water Pipit
Fringilla coelebs	Common Chaffinch
Carpodacus synoicus	Sinai Rosefinch

SCIENTIFIC NAME	COMMON NAME
Chloris chloris	European Greenfinch
Rhodospiza obsoleta	Desert Finch
Linaria cannabina	Common Linnet
Serinus syriacus	Syrian Serin
Emberiza calandra	Corn Bunting
Emberiza striolata	Striolated Bunting
Emberiza schoeniclus	Common Reed Bunting

## Subspecies of interest:

Buteo buteo vulpinus	Steppe Buzzard	
Larus fuscus heuglini	Heuglin's Gull	
Larus fuscus barabensis	Steppe Gull	
Lanius excubitor aucheri	Levant Grey Shrike	
Garrulus glandarius atricapillus	Eurasian Jay ssp atricapillus	
Ammomanes deserti isabellina	Desert Lark ssp isabellina	
Ammomanes deserti annae	Desert Lark ssp annae	
Phoenicurus ochruros		
semirufus	Levant Black Redstart	
Oenanthe lugens lugens	Mourning Wheatear ssp lugens	
Oenanthe lugens warriae	Mourning Wheatear ssp warriae	
Anthus spinoletta coutellii	Water Pipit ssp coutellii	
Felis silvestris lybica	African Wildcat	



Figure 3: Steppe Eagle (DD), Wadi Rum

## Appendix 2: all other species

Many species are still to be named and are added later. For an up-to-date list, see here for <u>mammals</u>, <u>herps</u>, <u>butterflies</u>, <u>dragonflies</u> and <u>fish</u>.

SCIENTIFIC NAME	COMMON NAME
Jaculus jaculus	Lesser Egyptian Jerboa
Spalax leucodon	Lesser Blind Mole Rat
Hystrix cristata	Crested Porcupine
Lepus capensis	Cape Hare
Felis silvestris	Wild Cat
Hyaena hyaena	Striped hyena
Canis aureus	Golden Jackal
Vulpes cana	Blanford's Fox
Vulpes vulpes	Red Fox
Gazella marica	Arabian Sand Gazelle
Oryx leucoryx	Arabian Oryx
Tropiocolotes nattereri	Natterer's Gecko
Colotis phisadia	Variable Colotis
Pontia glauconome	Desert White
Euchloe charlonia	Greenish Black-tip
Lampides boeticus	Long-tailed Blue
Azanus ubaldus	Desert Babul Blue
Vanessa atalanta	Red Admiral
Vanessa cardui	Painted Lady
Anax imperator	Blue Emperor
Orthetrum chrysostigma	Epaulet Skimmer
Trithemis annulata	Violet Dropwing
Trithemis arteriosa	Red-veined Dropwing
Cloeon dipterum	
	Humming-bird Hawk
Macroglossum stellatarum	Moth
Utetheisa pulchella	Crimson Speckled
Gymnothorax griseus	Geometric moray
Synodus dermatogenys	Sand lizardfish
Synodus variegatus	Variegated lizardfish
Myripristis murdjan	Pinecone soldierfish
Sargocentron diadema	Crowned Squirrelfish
Fistularia commersonii	Bluespotted cornetfish

SCIENTIFIC NAME	COMMON NAME
Ostracion cubicus	Yellow boxfish
Arothron diadematus	Masked puffer
Arothron stellatus	Starry toadfish
Pterois radiata	Radial firefish
Caesio suevica	Suez fusilier
Chaetodon austriacus	Blacktail butterflyfish
Chaetodon fasciatus	Diagonal butterflyfish
Chaetodon paucifasciatus	Eritrean butterflyfish
Heniochus intermedius	Red Sea bannerfish
Parupeneus forsskali	Red Sea goatfish
Pseudochromis fridmani	Orchid dottyback
Pseudanthias squamipinnis	Sea goldie
Gomphosus caeruleus	Green birdmouth wrasse
Thalassoma rueppellii	Klunzinger's wrasse
Abudefduf sexfasciatus	Scissortail Sergeant
Abudefduf vaigiensis	Indo-Pacific sergeant
Amblyglyphidodon indicus	Maldives damselfish
Amphiprion bicinctus	Twoband anemonefish
Dascyllus aruanus	Whitetail dascyllus
Neoglyphidodon melas	Black damselfish
Plectroglyphidodon	
lacrymatus	Jewel Damselfish
Pomacentrus sulfureus	Sulphur damsel
Pomacentrus trichrourus	Yellowtail damsel
Chlorurus sordidus	Daisy parrotfish
Parapercis hexophtalma	Speckled sandperch
Ctenochaetus striatus	Lined Bristletooth
Zebrasoma xanthurum	Yellowtail tang
Adiantum capillus-veneris	Maidenhair Fern
Pinus halepensis	Aleppo pine
Ziziphus spina-christi	Syrian Christ-thorn
Heterocentrotus mamillatus	Slate Pencil Urchin

