

Gebel Elba Ornithological Survey 3- 10 of April 2010.

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Photo: Wadi Adeib. April 2010 © Moldovan I.

Introduction

1.1 Area

In the Eastern Desert, the mountains rise gradually from west to east to form a dramatic barrier. Amongst the notable mountains is Gebel Elba which because of its unique attributes it is the most important area for flora and fauna in Egypt. It can also be classed as one of the least explored corners of the world but nevertheless is subject to innumerable threats.

Gebel Elba Mountain lies in the extreme south east corner of Egypt, in the Sudanese Government Administration Area (SGAA), also known as the Hala'ib Triangle. The boundaries of the SGAA fall roughly between Gebel Muqsim and Bir Shalatin (Ball, 1912; Henderson, 1965).

Gebel Elba is an igneous mountain complex located approximately 20 kilometres west of the Red Sea and rises to a maximum altitude of 1437 metres. The highest peaks act as a "dew trap", taking the condensation from the clouds that often cover the mountain. The coast curves slightly to the east giving Gebel Elba an unusually broad front to the sea across a 25 kilometre strip of relatively flat land. This enables moist air from the Red Sea to condense on the peak of the mountain to create a "mist oasis".

Formed out of the most ancient rocks in Egypt dating back 550 million years, the massif is comprised of igneous rock such as granite. This was formed when hot *magma* or liquid rock was pushed up from deep within the Earth and forced into the overlying rock in a process known as intrusion. It then cooled and hardened and later became exposed as the rock we see today. There are also metamorphic rocks like high grade gneiss and lesser grade schist that were formed under intense heat and enormous pressure.

The massif is dissected by small wadis (dry river beds) but is shaped by three main wadis: Wadi Serimtai from the south, Wadi Akwamatra from north while the third and best vegetated wadi, Wadi Adeib, is in the middle, almost cutting the mountain in half. These deep dry river beds serve as a drainage system of the mountain, trending east towards the Red Sea.

1.2 Status

The Gebel Elba massif is the centrepiece of the entire area which was declared a protectorate in 1986 as the Gebel Elba National Park, (Prime Ministerial Decrees 450/1986, 1185/1986 and 642/1995), Covering 35,600 square kilometres the aim was to promote the sustainable management of natural resources and maintain its biodiversity. Within the reserve are multiple ecosystems: The mangroves of the Red Sea, the Red Sea itself, 22 islands, the coral reefs, the coastal dunes, the coastal wetlands, the coastal areas and plains of the desert as well as a group of coastal mountains, Gebal Elba, Gebal Al Ebruq and Daeib. However, our survey targeted the Gebel Elba itself, which covers an area of 5.000 square km maximum.

Climatic factors

The prevailing winds in Gebel Elba come from southeast (Abu Al-Izz, 1971), from the direction of the sea, consequently more or less regularly, mist and clouds soak the mountain, giving Gebel Elba a higher biodiversity than any other region of Egypt.

The amount of average rainfall is high at 50mm in comparison to the other areas from the same latitude. The precipitation drawn from the moisture tapped from clouds and the sea increase the level to 400mm, turning Gebel Elba to one with the highest amount of precipitation in Egypt.

Where moisture is brought from the sea by the east winds and soaks the mountain, the cover of vegetation is as it richest. But the cover decrease drastically on the west and south west slopes which are sheltered from the wind and thus receive significantly less dew than the eastern side of the massif.

The maximum temperature registered during the trip was at Wadi Adeib on 6th of April at 14:00 hours, 43°C in the sun and 36°C in the shade, while the minimum was 16.9°C at 04:40 hours on 7th of April at Wadi Akwamatra.

Flora

The Hala'ib region represents the northern limit of Afro-tropical elements making it a unique region among Egypt's dominating Mediterranean and North African ecosystems. In areas there is dense cover of acacias, mangroves and other shrubs, in addition to endemic species of plants such as *Biscutella elbensis*. Also, a remarkable number of the species found on Gebel Elba are not found anywhere else in Egypt.

The best vegetated parts are the wadis which are comprised mainly of trees and shrubs, but some places with more recent rains were covered with green perennial herbs and grasses. According to Fahmy (1936), Kassas and Zahran (1971) 458 plants are known from the region.

The lower wadis are well covered with trees, dominated by *Acacia tortillis*, *Delonix elata*, *Aerva persica* and *Euphorbia cuneata*, while at the higher altitudes, ferns, mosses and succulents are common, the characteristic plants are: *Acacia etbaica*, *Coccoloba pendulus* and *Dracaena ombet* (Abd El-Ghani and Abdel-Khalik, 2006).

Fauna

Gebel Elba supports a rich mammalian fauna: 23 mammals (Osborne and Helmy, 1980) and 22 reptiles and amphibians (Goodman and Meininger, 1989) have been reported.

Forty birds are reported to breed in Gebel Elba (Goodman and Meininger, 1989) but some of them have become very rare or even extinct since. From the targeted bird species, five of those of Afro-tropical origin, were not accounted for during our trip.

However, the eight day exploration is not enough in order to draw conclusions. The next trip, which will be a systematic survey, scheduled for November 2010, will hopefully clarify the status of several species. The organisers have now a base of knowledge, and the upcoming trip is not going to a totally unknown area, and a survey plan has been drafted.

History

The earliest reports of interest in Gebel Elba are those of von Heuglin (1869-73) and Cholmley (1897). J. F. Madden and G. Schrader recorded and collected birds from the area south of Bir Shalatin in the 1920's. El Negumi on the behalf of the Royal House conducted a survey in the region in the late 1940's.

The most detailed collections and best field surveys were carried out by the US Naval Medical Research Unit no 3 (NAMRU-3), under the direction of Harry Hoogstraal in 1954, 1964 and 1967.

Since the expedition of Goodman & Meininger (1985) to the region, we are aware of only a single piece of ornithological data posted on the EGYBirdgroup mailing list by Sherif Baha el Din, covering observations made from 28th to 31st of March 2008.

The area is restricted for foreign visitors, but after long negotiations, [Birding in Egypt](#) with the generous assistance of the Ministry of Defence and Egyptian Environmental Affairs Agency (EEAA), organised and conducted a preliminary survey of the massif between 3 and 10 of April 2010, with an international ornithological team composed by 6 members, based on their own individual request.

We fully understand and applaud the government restrictions in the area due to the highly sensitive environment already affected by the prolonged drought, and have no intention of encouraging tourism of any nature in the region at any time.

Among the ornithological observations, observations on flora, mammalian fauna and weather conditions were recorded. As a team of ornithologists, we focused mainly on avifaunal observation, while in the forthcoming trip, botanists, lepidopterists and experts in mammals are welcomed, but participants should describe their motivations in a detailed letter.

Survey methods

The extreme temperatures do not allow spending the entire day in the field, and the bird activity drops practically to zero throughout the middle of the day. The surveying team was in

the field in the early hours of the morning from 05:00 to 09:00 hours and from 15:00 hours until nightfall with localised explorations or observations from the vehicles from 09:00 hours to around noon.

The surveys were done walking upstream in the main Wadis, which were mentioned by Goodman and Meininger (1986) as having significant bird populations: Wadi Adeib, Wadi Akwamatra, Wadi Serimtai, Wadi Akaw, Wadi Kansisrob.

Photos of birds and mammals were shown to the local tribesmen, who were also invited to discuss several species of interest.

Itinerary

The track of the expedition can be followed on the map below, from Wadi Deib (Day 1) to Wadi Akwamatra (Day 8).



Logistics

Two 4WD Toyota Land Cruisers and one Jeep Cherokee were used to transport 13 persons: 6 ornithologists, two representatives of the Ministry of Defence and the Tourist and Antiquities Police, two drivers, a representative of EEAA, an Ababda tribesmen as a desert guide and driver, and a representative of the company who provided the logistics.

Each member of the ornithologist's team had binoculars (mainly 10 X 50), 2 scopes, and 4 digital SLR cameras of which one had a Nikon lens 500mm f4 with a doubling teleconverter.

GPS coordinates were taken with a Garmin (Legend HCx) device, and the weather conditions were monitored with a Geonaute WS 900 device.

The following field guides were used, except for the Rosy-patched Shrike (*Rodophoenus cruentus*):

Svensson L. 2009. *Birds of Europe, Second edition*), Princeton Univ. Press;
Porter, R.F., Christensen S., Shiermacker-Hansen P. 1996 *Birds of the Middle East*, T&AD Poyster, London.

Threats

The region seems to be seriously affected by the long lasting drought, as is the entire Egyptian Eastern Desert (M.I. *pers.obs*)

No surface water is available and most water holes (*akaw* - in the local dialect) available for wildlife held water for a brief period of time. According to the locals, ground water is lower year by year. A deep well in Wadi Serimtai was estimated to be around 17 metres deep.

Apparently the mist which used to soak the mountains is much reduced or has moved to the north or south (further research needed). The Ombet Trees (*Dracaena ombet*) in most of the wadis are drying out, young trees have been seen dried up, and some species seem to be drastically reduced (Rock Hyrax, Rosy-patched Shrike) or even extinct (Ostrich and Leopard).

Overgrazing is visible in the whole region. The demographic increase has lead to an increase in livestock as well. The nomadic lifestyle is less characteristic, and the people are more tied to the few permanent water sources, and consequently, pressure on the pastures is ever increasing, virtually depleting the soil and the plants.

The need for charcoal leads to overexploitation of local trees, especially acacia, and the prolonged drought does not permit seeds to germinate. Usually, three or four years of consecutive rainy years are needed for an acacia to grow big enough to penetrate to the ground water level (Springuel, I. 2006)

Fortunately, mass tourism is still kept far from the region. The environment can still sustain scattered Bishari families, but if tourism is ever allowed in Gebel Elba National Park, it will be certainly a *coup de grace* to the fragile environmental equilibrium.

According to one of the EEAA rangers, Maltese hunters were seen and caught with two Lappet-faced Vultures and other birds at Bir Shalatin. If they went so far, sooner or later the hunters will reach Gebel Elba illegally, with the help of local desert guides. The insufficient funding of the EEAA does not allow its rangers to undertake deep desert patrolling. Lack of internet and sources of communication in the field offices of the National Parks aggravate the problem.

Mist netting of Sandgrouse at Bir Shalatin, at an artificial water hole, has been reported by the rangers of the protectorate.

Local tribesmen do hunt for Ibex and Dorcas Gazelle. We could not find out if the locals are in possession of shot guns. Empty cartridges were not found, in contrast with other place with relative rich wildlife (M.I *pers. obs.*).The local Bisharin inhabitants are probably hunting with the same methods (dogs and stones) as the Ma`aza Bedouins of the Eastern Desert, techniques which were well documented by Treganza (1955) and Hobbs (1989).

Feral dogs have been reported to be a major threat to the Dorcas Gazelle population at Wadi Gimal National Park. Sayed el Hodary (EEAA - Wadi Gimal office) has photographed Dorcas Gazelle captured and eaten by feral dogs.

Discussions

Cramp and Simons (1977) exclude Gebel Elba from the Western Palearctic (WP) despite the fact that the boundary of WP follows 22° N. The reason is that in 1977, the Hala'ib Triangle was considered Sudanese territory. At the moment it is entirely controlled and administered by the Egyptian Government.

Logically, the flora and fauna should decide if a region is part of the WP, not national borders. In any case, the situation of Gebel Elba is complex. Indeed the occurrence of Afro-tropical flora and fauna (Ethiopian biota) is high in Gebel Elba, which represents the northernmost limit of their range, but the Sindo-Saharan and Eurasian elements are represented as well.

The Red Sea Mountains are a corridor for Afro-tropic species, but these species do not continuously inhabit the mountainous chain from the Ethiopian highlands to Gebel Elba. The "mist oasis" as characterized by Prof. Kassas (1955), is rather an isolated part from the rest of the hyper arid mountains, which hold relic populations of the characteristic Ethiopian biota.



Four hundred kilometres south in Sudan there is another "mist oasis" at Erkovit, which holds roughly similar species, but these species do not occur continuously between these two spots.

Even if it is clear that once the entire region has been linked by a green corridor, nowadays it appears totally isolated.

No doubt, in case of heavy rains for consecutive years, perennial flora and afro tropic mammalian and avian species would venture north in search of new territories, but the sporadic records do not warrant the status of an afro tropical region, which then should be excluded from WP.

The existence of relic Asian species in a few square kilometre areas in the European Alps and Carpathians does not mean that this small region is not part of WP, and the very same rule might be applied to the Hala'ib Triangle.

In the view of the changing climate and consequently the environment, it is just the time for a detailed survey of the flora and fauna of the entire Red Sea Mountain chain, at least from Erkovit to the Gebel Elba National Park, in order to have a wider and deeper understanding of the actual status of the birds of the region.

In this respect, we would like to contribute this report to the reconsideration of the inclusion of the Hala'ib Triangle inside the borders of the Western Palearctic, but we would like to emphasise, that this suggestion is based only on local observations, in and within a short range South of Gebel Elba itself.

Conclusion

We do not intend to draw any conclusions from a preliminary, orientation survey. The general impression can be tricky, so we contribute only with a list of species counted during the trip. We have included in the checklist the birds seen while we were travelling to Gebel Elba, from Marsa Alam, and on the way back. A few species which were not observed, but were

mentioned in the Birds of Egypt (Goodman and Meininger, 1989) are commented upon in a separate list, below the checklist.

It would be indicated that surveys to be undertaken all year round in the near future, in order to get an accurate image of the fauna of Gebel Elba. If the climate warming continues at the current rate, the flora and fauna of Gebel Elba may be reduced in only a few years, turning Gebel Elba in a similar hyperarid mountain as the ones from the central eastern Egyptian desert.

In the view of the new records and surveys, the newly established Egyptian Ornithological Rarities Committee (EORC) should re-evaluate the previous records from the region, as some of them seem to be not substantiated.

In the field of environmental protection, the most important issue for the Gebel Elba would be to stop the human immigration to the region, and control the demographic increase. Although everybody knows that the demographic increase is the cause of all environmental problems on earth, no one dares to mention it.

Illegal hunting should be discouraged by law enforcement and organised patrols in the region. Although the environmental laws exist, and Egypt is a signatory of many international agreements, the governmental institutions and the police are not aware of all the laws, and as a rule not even of the concept of environmental protection. It would be the task of the NGO's, to undertake an awareness campaign regarding the environmental laws.

Abbreviation used in the text:

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M.M. Mary Megalli
SGAA Sudanese Government Administrated Area
WGNP Wadi Gimal National Park
WP Western Palearctic

List of the birds accounted during the trip, between Bir Shalatin and Hala'ib

N.B In case of sensitive species and especially those sought after by the poachers, we intentionally do not give the location of sightings.

For a full trip report, including the species observed from Marsa Alam to Hala'ib, please contact the authors.

Sand Partridge *Amenoperdix heyi cholmleyi*

Around 10 birds were seen in the upper part of Wadi Akwamatra, at an elevation of ~400 m. It was heard also in the South-western slopes of Wadi Serimtai.

Common Quail *Coturnix coturnix*

Single bird seen, N of Wadi Akwamatra in the desert.

Western Reef Egret *Egretta gularis schistacea*

Daily along the coast several birds

Grey Heron *Ardea cinerea*

One single bird was observed at Abu Ramad, 2 at Hamata Mangrove

Lammergeier *Gypaetus barbatus*

An apparently resident adult bird was seen and photographed (J.B), gliding S, rather low. A juvenile bird has been observed (Lajos Nemeth and M.I.) back on 9th of March 2007 at Bir Shalatin, which we presume has been hatched at Gebel Elba area.

Lappet-faced Vulture *Torgos tracheliotus nubicus*

Seen and photographed daily, in Gebel Elba with a maximum number of 8 birds counted at Bir Shalatin on 4th of April.



Photo: Bir Shalatin, April 2010 © Moldovan I.

Egyptian Vulture *Neophron percnopterus*

They were seen every day in Gebel Elba, in good numbers. An old nest has been found. Biggest numbers were counted at Bir Shalatin, Abu Ramad and Hala'ib. Migrating birds are roosting at the well vegetated wadis.

Osprey *Pandion haliaetus*

Common along the Red Sea coast, find nesting in every mangrove swamp. Not recorded inland.

Lesser-spotted Eagle *Aquila pomarina*

Seen on migration, heading north above Gebel Elba every day, with maximum numbers of 7 birds on 7 of April. Probably more numerous but less attention was accorded to the raptor migration during the trip.

Steppe Eagle *Aquila nipalensis orientalis*

Dozens were seen on migration. 80% of the accounted birds were second year birds. Also found N of Gebel Elba resting on the barren desert (photo).



Photo: Wadi Deib, April 2010 © Dick Hoek

Short-toed Eagle *Circaetus gallicus*

Two birds were seen north of Gebel Elba, presumably on migration.

Booted Eagle *Aquila pennatus*

Up to 5 birds were seen on a daily basis, on migration.

Bonelli's Eagle *Aquila fasciatus*

One bird was seen for a brief period, disappearing around the NW slopes of a mountain.

Black Kite *Milvus migrans migrans*

Daily seen on migration, with up to 160 birds seen roosting in one of the well vegetated wadis.

Western Marsh Harrier *Circus aeruginosus*

Not more than 3-4 a day were seen on migration.

Pallid Harrier *Circus macrourus*

Three birds were seen on migration, on the Red Sea Coast.

Steppe Buzzard *Buteo buteo vulpinus*

Hundreds were seen daily on migration above the mountains. They were also roosting in the well vegetated wadis of Gebel Elba.

Sparrowhawk *Accipiter nisus*

Up to 4 specimens were accounted on a daily basis.

Common Kestrel *Falco tinnunculus*

They were uncommon inside of Gebel Elba, but single birds seen on most days.

Lanner *Falco biarmicus*

A mating pair has been observed.

Sooty Gull *Larus hemprichii*

They were common sight along the coast from Marsa Alam to Hala'ib.

Caspian Tern *Sterna caspia*

Rather common along the Red Sea Coast.

Crowned Sandgrouse *Pterocles coronatus*

Four birds were seen on the road side north of Abu Ramad.

Rock Dove *Columba livia*

They are a common breeding bird along the Red Sea Mountains where they were seen in flocks.

Namaqua Dove *Oena capensis*

Single bird at Wadi Adeib, and three birds photographed at Hala'ib.

African Collared Dove *Streptopelia riseiogrisea*

They are a common breeding bird in Gebel Elba. Territorial calls were heard every day, and pairs seen and photographed.



Photo: Gebel Elba, April 2010 © Bernhard Pusch

Laughing Dove *Streptopelia senegalensis*

Several found at Wadi Adeib and Wadi Akwamatra, always relatively close to human habitations.

Common Cuckoo *Cuculus canorus*

A single male was seen on migration at Wadi Sermitai.

Pharaoh's Eagle Owl *Bubo ascalaphus*

It was heard twice during the trip, always in well vegetated wadis. Ethiopian Hedgehog *Paranacomys aethiopicus* skins were found in a typical "inside out" position, which confirms the predation of an Eagle Owl.

Nightjar (?) *Caprimulgus sp.*

It was seen for a second time, flying above the camp. We could not ID the species, but due to the size, were probably the European (*Caprimulgus europaeus*) or Egyptian (*Caprimulgus aegyptius*).

Eurasian Hoopoe *Upupa epops*

Several were seen on migration.

Greater Short-toed Lark *Calandrella brachydactyla*

Small flocks (4-10 birds) daily seen on migration

Desert Lark *Amomanes deserti*

A pair seen at Wadi Akaw and another pair in Wadi Abu Ghusun (WGNP)

Hoopoe Lark *Alaemon alaudipes*

A single bird was seen at the Red Sea Coast, South of Bir Shalatin.

Sand Martin *Riparia riparia*

Up to four birds were seen in Wadi Serimtai.

Crag Martin *Ptyonoprogne rupestris*

A single bird was seen above a well vegetated, wadi floor (Wadi Serimtai), which received a certain amount of rain in early March.

Pale Crag Martin *Ptyonoprogne obsoleta obsoleta*

Three birds observed foraging at Wadi Serimtai

Barn Swallow *Hirundo rustica rustica*

Up to 40 birds were accounted on daily basis,.

Red-rumped Swallow *Cecropis daurica*

Two birds were seen at Wadi Sermitai.

Tawny Pipit *Anthus campestris*

One was seen 40 km south of Bir Shalatin.

Tree Pipit *Anthus trivialis*

Seen every day on migration, with a maximum of 25 counted in the green area of Shams Alam Hotel (WGNP)

White Wagtail *Motacilla alba*

At Gebel Elba, at best 4 to 6 specimens were heard or seen. Singles seen along the coast up to Marsa Alam, some of them were in full breeding plumage.

Yellow Wagtail *Motacilla flava*

Flock of up to 15 birds were seen daily. On subspecies level: *flava*, *feldegg* and *thunbergi* were identified.

Thrush Nightingale *Luscinia luscinia*

Call was heard in Wadi Adeib and Wadi Akwamatra.

Wheatear *Oenanthe oenanthe*

Up to 25 birds seen daily from Marsa Alam to Hala'ib.

Black-eared Wheatear *Oenanthe hispanica melanoleuca*

Minimum one bird accounted daily.

Cyprus Wheatear *Oenanthe cypriaca*

A single second year bird was seen in Hala'ib.

White-crowned Wheatear *Oenanthe leucopyga*

The most common bird in Gebel Elba and along the mountains to Marsa Alam: They were found even in the most arid environments.

Blackstart *Cercomera melanura*

A common bird in Gebel Elba.

Blue rock Thrush *Monticola solitarius*

Two females were seen at Wadi Akwamatra.

Rock Thrush *Monticola saxatilis*

One moulting male was seen in Bir Shalatin.

Common Whitethroat *Sylvia communis*

Single bird was observed south of Abu Ramad.

Lesser Whitethroat *Sylvia curruca*

Omnipresent: The commonest bird accounted during the field survey.

Arabian Warbler *Sylvia leucomelanea*

Elusive: Up to 4 birds found in the side valleys of Wadi Adeib.



Foto: Gebel Elba, April 2010 ©Pusch Bernhard

Reed Warbler *Acrocephalus scirpaceus*

One was seen briefly at the mangrove stands N of Abu Ramad. Not excluded to be African Reed Warbler (*Acrocephalus baeticatus*). Further research needed during breeding period.

Great Grey Shrike *Lanius excubito aucherii*

Common breeding bird of Gebel Elba. Aproximately 40 birds were seen during the trip. All of them fits well in the "aucheri" form (Lars Svensson *pers. com.*). The seasonal status and distribution of the two resident forms in Egypt (*elegans* and *aucherii*) is not clear (Goodman & Meininger 1989). In the view of the new molecular data (Urban O. & Svensson L., 2009), DNA samples and morphometric measurements are required from the Egyptian populations, including Sinai Peninsula.

Turkestan Shrike *Lanius phoenicuroides*

An adult male has been seen and photodocumented at Wadi Serimtai.

Woodchat Shrike *Lanius senator*

One at Wadi Serimtai and at least 5 more along the Red Sea Coast, N to Marsa Alam.

Rosy-patched Shrike *Rodophoenus cruentus*

One observation in Wadi Adeib on 5th of April (M. D.M), but not photo-documented. One pair observed for 20 min. and photographed in Wadi Akwamatra. It was found in the dense acacia woodland, at 365 m elevation.



Foto: 2010©Pusch Bernhard

Common Bulbul *Pycnonotus barbatus (arsinoe ?)*

Find nesting at Wadi Adeib. Further research needed in order to clarify the subspecific status, as the birds' habitus differs in some way than the population from Nile Valley and Northern Red Sea Coast. The Bulbul here was light brown on the back, and up to the crown, and had a light brown wide and distinctly marked collar across the upper breast.

Shining Sunbird *Nectarinia habesinica*

Common breeding bird in Wadi Adeib but Wadi Ti Hamra and Wadi Akwamatra sustains a considerably lower population.



Photo: Gebel Elba, April 2010 © Bernhard Pusch

Fulvous Babbler *Turdoides fulva*

Widespread in Wadi Adeib and Wadi Akwamatra: Highly gregarious.



Photo: Gebel Elba, April 2010 © Bernhard Pusch

Brown-necked Raven *Corvus ruficollis*

Common breeder in Gebel Elba and on the Red Sea Coastline

Fan-tailed Raven *Corvus rhypidurus*

Seen at least 40 pairs in Wadi Adeib, and further 40 to 50 in Wadi Akwamatra



Photo: Gebel Elba, April 2010 © Dick Hoek

House Sparrow *Passer domesticus*

Around all human habitations (Hala'ib, Abu Ramad, Marsa Alam, WGNP)

Birds not accounted in Gebel Elba in April 2010, but mentioned in the Birds of Egypt
(Goodman and Meininger, 1989)

North African Red-necked Ostrich *Struthio camelus*

Not recorded and due to the prolonged drought (according to the natives) the habitats seem improper to assure the survival of the species. Photos of the species were shown to the local tribesmen, which recognized the species, the older ones even being familiar with the habits of the Ostrich. We reproduce here the account of an old Bisharin tribesman from Wadi Serimtai, regarding the presence of the Ostrich in the region: " *There are no Ostriches. The Ostrich is grazing like the camels, it needs pasture. There are no rains anymore, so how should be Ostriches?* ".

The local tribesmen do not know the metric system (for example) and are not familiar with the western time scale of years recognizing, but not counting the seasons, so we could only approximate that the last one has been seen around 20 years ago. Certainly extinct in the region.

Verreaux's Eagle *Aquila verreauxii*

Not found. However, local tribesmen recognised the bird from a photo, and were familiar with its habit of preying on Hyrax. Recent records attest the presence of the bird (31 March 2008), and as well the accounts of the native Bisharins.

Bateleur *Teratopius ecaudatus*

Not found, despite all efforts to locate the bird and probably extinct from Gebel Elba. Reported to breed by Goodman and Meininger (1989). Local tribesmen, did not recognise the species from a photo, and were not familiar with the habits of the bird.

It is known to be irruptive or local migrant, with juveniles dispersing from breeding areas (Bildstein 2006), but the breeding at Gebel Elba is highly improbable. We consider the observation of Goodman and Meininger a single attempt of nesting, and we suggest to change the status of the Bateleur from resident breeder to accidental visitor.

On the map, the breeding range of Bateleur. Note that the breeding range is not marked along the Red Sea Coast, on the Sudanese coastline.



Map source: www.wikipedia.org

Hume's Owl *Strix brucei*

Not recorded. Presence is known from the earlier accounts (Goodman, 1984; Baha el Din, 2008) Despite several attempts to call the owl with tape recording we did not succeed to confirm its presence in the zone.

Lichtenstein Sandgrouse *Pterocles lichteinstainii*

Drinking place unknown. We did not flush any of it, during our trip.

Sudanese Golden Sparrow *Passer luteus*

Considered migrant breeder by Goodman and Meininger, but do not mention the timing of the breeding period. Last known sighting on 28 of March 1983, in Wadi Kansisorb. Not accounted during this trip.

Mountain Bunting *Emberiza striolata*

Not found despite all efforts around the water sources, and mountain slopes. Known to be abundant in years of good rains as the Black-crowned Sparrowlark *Eremopterix nigriceps*.

N.B. For further reference of the status of the birds in Egypt, see the "*Provisional checklist of the Birds of Egypt*" (Moldovan & Blair, 2010) on www.birdinginegypt.com

List of mammals

Feral Donkey X Wild Ass *Equus asinus africanus*

One hybrid specimen seen during the trip, at remote spring. The specimen descended from the almost inaccessible mountain, and did not arrive from the wadi floor as a domestic one would.

The habitus of the animal matched the description of Osborn and Helmy (1980) for the wild ones:

"From the domestic ass, *E. a. africanus* differs in paler colour, lack of leg stripes, legs paler than body, lack of dark patch at ear base and tip, and presence of dark spot outer side of fetlock."



Photo: Gebel Elba, April 2010© Moldovan I.

The animal maintained its distance from humans, and did not run away when distant. The local tribesmen, whose family controls the spring, said that it is a wild animal and does not belong to anyone. Due to language barriers (the local Bisharin do not speak Arabic) we are not sure if he meant a feral animal; but there is no doubt that on some level, it carries the genes of the African Wild Ass. It is known that historically the native Bishari tribesmen let female donkeys roam free to be mated by wild males to produce stronger offspring (Richard

Hoath *pers. com.*), which lead to a strong hybridisation between the wild and domestic animals.

Dorcas Gazelle *Gazella dorcas littoralis*

Seven have been recorded during the trip. Droppings have been found in some Wadis where we did not record the species. Apparently, this is the best preserved population all around Egypt. (M.I. *pers.obs.*)



Photo: Gebel Elba, April 2010 © Dick Hoek

Cape Hare *Lepus capensis isabellinus*

One was seen (D.H.) at Wadi Adeib, and dung has been found.

Ibex *Capra ibex nubiana*

A skin and two skulls were found and photographed. One of the skulls was a recently killed animal, not more than 6 months ago. Only one living animal has briefly seen during our trip, in an arid part of Gebel Elba, almost completely devoid of plants.

Ethiopian Hedgehog *Paraechinus aethiopicus*

Two relative fresh skins were found (J.B and I.M).



Photo: April 2010© Jacqueline Burrell

Rock Hyrax *Procavia capensis ruficeps*

Several animals were heard at Wadi Akwamatra, and in Wadi Kansisrob were seen urine streaks, on the rocks, which indicate the presence of the species.

Fox *Vulpes sp.*

Not recorded, but a skin of a hedgehog and tracks indicate the presence of a fox (Rupell's Fox?) in the area.

Bat species (*Chiroptera*)

Dozens were seen right after the nightfall, hunting insects attracted by the electric bulb of the camp.

Reptiles recorded

Spiny Agama *Agama spinosa*

Widespread, seen in most of the Wadi`s

Mount Elba Snake-eye Lizard *Ophisops elbanensis*

One specimen recorded at Wadi Akwamatra.

Flora (addition by Jacqueline Burrell)

In the Hala'ib Triangle, Afro-tropical elements have their northern limits at Gebel Elba, making it a unique region among Egypt's dominating Mediterranean and North African ecosystems. There is dense cover of acacias, mangroves and other shrubs, in addition to endemic species of plants such as *Biscutella elbensis*.

In Gebel Elba the largest families are: Leguminose 12.2%, Graminae 10.6% and Capparaceae 4% (Zohary 1973).

The north and northwest slopes of Gebel Elba are drained by Wadi Yahameib and Wadi Adeib. These wadis are densely covered with Acacia and are the only places in the Eastern Desert where the vegetation looks like a forest.

The north and northeast slopes of Gebel Elba are richly vegetated. Three latitudinal zones of vegetation are clear: A lower zone of where *Euphorbia cuneata* is predominant, a middle zone where *Euphorbia nubica* is the commonest community and a higher zone of moist habitat vegetation. In this higher zone there are stands of *Acacia etbaica*, *Dodonaea viscosa*, *Ficus salicifolia*, *Pistacia khinjuk*, *Rhus abyssinica*. Cryptogams (ferns and mosses) and liverworts can also be found at higher elevations.

Gebel Karm Elba is one of the main foot-hills which lie to the east. The north and northeast slopes are characterized by the abundance of *Delonix elata*.

The southern slopes of Gebel Elba drain into Serimtai, one of the most extensive drainage systems in the district. The Acacia scrub of the wadi is much more open than that of Wadi Adeib. The southern slopes are notably drier. The vegetation is mostly confined to the rills and runnels of the drainage system. The most common vegetation is *Commiphora opabalsamum*. At higher altitudes, some shrubs of *Acacia etbaica* and *Moringa peregrine* may be found.

The western slopes of Gebel Elba are even drier than the southern ones. The vegetation is of therophytes mostly *Zygophyllum simplex* which appear in rainy years.

The higher hills rise to 175 metres on the coastal plain to the east of Gebel Elba. On the north and northeast slopes, the vegetation is characterised by the preponderance of *Euphorbia cuneata*. On the southern slopes, *Aerva javanica* is dominant with only occasional plants of *Euphorbia cuneata*. On one of the foot-hills near the coast, the northern and eastern slopes are covered by a rich growth of *Acacia nubica* and many large plants of *Calotropis procera* whereas on the southern and western slopes there is an open growth of *Aerva javanica*.

***Dracaena ombet*,**

The Ombet tree, *Dracaena ombet*, is found only on the higher north and east slopes of Gebel Elba. The Ombet is a rather small tree related to the famous Dragon Tree of the Far East and the Socotra Dragon Tree *Dracaena cinnabari*.

Dracaena ombet is listed as endangered plant in the IUCN Red List 2006, the subpopulations on Elba Mountain' in Egypt and Sudan are particularly threatened (IUCN Red list 2006). This plant is in rapid decline due to overgrazing, over-cutting, drought and possibly attack by parasitic pests or disease have contributed to the decline (El Azzouni 2003).

Mangroves

All mangroves are protected in Egypt but they are among the world's most endangered habitats and threatened from uses such as timber, charcoal, pulp and tannin. They are vital and productive ecosystems and exert an influence that goes far beyond the often-limited areas in which they grow.

Mangroves in Egypt are distributed over numerous small stands. These mangroves comprise the northern latitudinal limits of the Indo-Pacific-East African mangrove realm, and as elsewhere toward the latitudinal limits, the mangroves are species-poor. Between Bir Shalatin and Hala'ib uninterrupted mangrove forests extend for several kilometres along the coastline.

Thus, only two species of mangroves are recorded from Egypt (Saenger, 2002) with *Avicennia marina* the most widespread. This species is tolerant of relatively high salinity, together with low rainfall and temperature conditions.

A second species, *Rhizophora mucronata* occurs at a few sites in the Red Sea south of 25°N. This species requires more humid conditions and is less tolerant to high salinity when compared with *Avicennia marina*. *R. mucronata* was seen in Hala'ib Triangle.

In the southern Red Sea, the mangroves are vital components of the coastal ecosystem and contribute significantly to the health of the environment as well as providing spawning grounds and havens for many important species of fish and crustaceans.

These mangroves also serve as important breeding ground for thousands of white-eyed gulls and other sea birds and such species as the Striated Heron, *Ardeola striata*, the Spoonbill, *Platylaea leucorodia*, Reef Heron, *Egretta gularis*, and occasionally the Osprey, *Pandion haliaetus*.

The beaches and islands also provide essential habitat for a variety of sea turtles, including hawksbills, leatherbacks, and green turtles.

All mangroves are now protected in Egypt and two main nurseries, one at Nabq the other in Safaga, have been established to propagate them and there is also a nursery in the Hala'ib Triangle.

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