

**REPORT OF THE MISSION CONDUCTED BETWEEN 5TH AND 15 MARCH 2013 –
In the regions of Hadjer-Lamis, Batha (The Republic of Chad)**

Introduction:

Following the agreement signed by Mr. Hassan Ahmat Djazouli from the Ministry of Environment and Water Resources, and BSPB represented by Mr. Stoyan Nikolov in the Republic of Ethiopia. A mission of monitoring and research has been conducted in the target areas of the two above-mentioned (02) regions of Chad - the region Hadjer-lamis located north of the Capital and the Region of Batha located at 500 km northeast of the capital N'djamena.

The mission goals:

- Identification of the concentration areas of the Egyptian Vultures in Chad
- Inform and sensitize people on the target areas of the Egyptian Vultures
- Collaborate with associations, groups, NGO, working in the field of the environmental protection
- Make contact with the people responsible for the environment and the local authorities in the target areas

• The mission:

The mission has been conducted in several stages during a ten day period - from 5th to 15th March 2013. The point of departure was the city n'djamena on 5th March, 2013 at 3 PM, destination – the selected regions, vehicle – Toyota, driven by Mr Hassan Ahmat Djazouli Chief of the Mission, accompanied by Mr. Abdellatif Fizani (Assistant); Senussi Habib Senussi (Guide), Mr Issa jek (Driver).

Leaving the capital, the mission team started the research and the identification work: slaughterhouses, garbage deposits, dormitories, nests etc.

The mission stayed in the area of the region hadjer-lamis for the night and continued its work the next morning.

On 6th March 2013 around 4 PM the mission reached the Yao Department of Fitri. Once arrived, the mission had organized meetings with the local people and their traditional leaders (villages, ferrick) including the heads of the target villages, in order to explain the purpose of the mission. The research and the identification work began the same day, after the meeting. This has allowed the team to visit four (04) sites and also the Lake Fitri - **Abourda, Waya, Garia and Atia Ardep**. During the four days of work, it turned out that there were a lot of Egyptian Vultures in these concentration areas. Unfortunately, the local people couldn't understand the importance of the species (Egyptian Vulture), so they couldn't answer why we were trying to locate and identify **the white vulture with a yellow beak** while there were many vultures and birds in this area. (*According to many people who have answered this question*).

During our stay, we recorded a hundreds of vultures in the four sites; the majority of the birds were adults and immatures. Also, it should be noted that due to our visits, we already know that there are many other concentration areas in the Department of Fitri. The birds are located in places far from the main road and often difficult to access with vehicles.

This situation requires two-wheeled vehicles and / or horses.

On 11 March 2013 the mission has led us to Jeddah sub-prefecture of ouaddi Rimé locality. There is situated the reserve of the ouddi-rhymed-ouaddi hachim. There are many concentration areas of Egyptian Vultures in this Ouaddi. The population is mostly formed by pastoral nomads who are moving from one place to another. There is also a sedentary population. Once arrived, we had the opportunity to meet the district chief of the town on market day in Djedda. He had invited a dozen of his representatives of cattle camps (ferricks) and villages, so we could discuss with them. Some of them are familiar with the Egyptian Vultures. These birds, they say, are always here because they watch the bodies, so we do not blame them. Others are curious to know if the Egyptian Vulture provokes the same interest like other vultures that Arabs from the Middle East pick and use to chase our natural resources (*as a head of cattle camp said*). After the 2-hours discussion they were convinced that the vultures are living beings like all the others and they have the right of life and protection and that they play the role of natural purifiers. After the meeting, the head of ferrick led us in several concentration areas located all along Ouaddi rhymed. During our tour, we were able to record a hundreds of vultures mostly adult and sub adult.

Knowing the distance and having only ten (10) days for the mission, we have spent two days in this place and this allowed us to visit some cattle wells where we met groups of farmers and explained the purpose of our mission. Some farmers were asking us if we could help them to dig their wells, others - if we could vaccinate their cattle for free, not interested in the Egyptian Vulture question at all. For some of them the Egyptian Vulture is a bird that lives among other poultry, for others it is very dirty bird that eats corpses, a bad sign, if seen next to a village or cattle camp, a bird that announces the death of a person, etc.....

Why protect this bird - there are other animals that are in the area and who are dangerously threatened as well: gazelles and Arabian bustard that provide food to the population, said the head of the cattle camp (ferrick).

We need to note that we have met the people responsible for the protection of the environment in the area in order to explain the purpose of our trip and especially the chief of the forest inspection department of Fitri, who was often crossing the area to provide us with information on remote locations and concentrations and suggested some tracks for access to these sites at the lake Fitri for our next mission.

According to our investigations in the regions of Hadjer-lamis and the Batha on the issue of the Egyptian Vultures, the people are mostly surprised but not reluctant. Many of them asked us about the usefulness of the Egyptian Vultures, they wanted to know why we do not intervene in the fight against other pests that destroy their farming such as seed predators and locusts that annually disturb the fields of Fitri. Other farmers in the village often have problems with the drinking water and the water they give to their animals. According to our findings, this people are very sensitive to anything that affects their cattle and their crop. They are very attentive to our message and easy to cooperate with.

Being in the area we decided to meet Sultant of Fitri who is a very influential man among the population and ask him to help us to identify other sites and to inform the other villages' leaders, but unfortunately he was travelling. We left this task for the next mission.

Everywhere the target groups listened with attention our awareness-raising and information message. The young people even had some proposals concerning their children. They asked if there were any activities they could do by themselves.

All this information leads us to the conclusion that the population of the visited regions stems of different communities. There are sedentary farmers and ranchers settled in Fitri and Haraze-elbiard (Region Hadjer-lamis) and pastoralists in the region Batha West. Certainly, it is not difficult to pass a message in order to raise awareness because the last few years many missions have been conducted among the population in various areas, but most of them were related to the development (construction of wells, dams, construction of schools and missions dedicated to the fight against poaching and excessive cutting of green wood

Moreover, the involvement of local traditional leaders, associations, groups and NGOs will contribute effectively to the sensitization and information flow, because the African societies are still attached to their tradition.

Difficulties encountered during the mission:

During our tour we encountered enormous difficulties which have to be mentioned here:

- The poor condition of the vehicle - renting a vehicle in good condition was over budget.
- The 10 days were not enough to cross the territory of two vast regions.
- The non-inclusion of airtime and medical expenses
- The non-inclusion of traditional gifts for the leaders: sugar, soap and drapery etc.

Suggestion:

Such a unique identification and research mission requires time to fully achieve its intended objectives. It is desirable to increase the duration time of the mission and to improve the working conditions for the staff responsible for the mission, considering the difficulties at the same time.

Conclusion

We note that the mission message is well received by all the different people met. It is important to note that the deadline of ten (10) days for the mission is insufficient in order to cover such a vast territory and to accomplish such an important research.



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Survey on wintering Egyptian vultures in Afar region, Ethiopia, in 2013

Report

Prepared by Yilma Abebe, Volen Arkumarev, Vladimir Dobrev & Stoyan
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May 2013



Photo: Volen Arkumarev



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I. Introduction

Egyptian vulture (*Neophron percnopterus*) is a medium-sized scavenger, distributed throughout southern Europe, North, West, Central and East Africa, the Middle East, Transcaucasia, Central Asia and the Indian subcontinent (Ferguson-Lees & Christie 2001). In 2007 the species was up listed from Least Concern to Endangered in the IUCN Red List. It shows a significant decline in almost all part of its range. Global population estimation is for 20 000 - 61 000 individuals (Birdlife International, 2013).

The Eurasian populations of Egyptian vultures are migratory and winter in Africa (Orta 1994). Mundy *et al* (1992) estimated that up to 10 000 Egyptian vultures from Europe, Western and Central Asia enter Africa every autumn at four points – Straits of Gibraltar, Strait of Sicily, Suez and Straits of Bab el Mandeb. These Palearctic migrants winter predominantly in the Sahel zone (Thiollay 1989) but also form big congregations in the Afar triangle in Ethiopia, Djibouti and Eritrea (Sigismondi & Politano 1996, Ash and Atkins 2009). In 1994 Sigismondi and Politano (1996) counted 1473 Egyptian vultures roosting on 75km of power lines in the Afar region, Ethiopia. Through the means of satellite telemetry is discovered that Egyptian vultures from Spain and France winter in Mauritania (Garcia-Ripollez *et al* 2010; Meyburg *et al* 2004), Italian vultures winter in central-east Mali (Ceccolini *et al* 2009) and the wintering grounds of the Bulgarian and Greek vultures are in Chad and Sudan (Meyburg *et al* 2004; BSPB unpubl. data). Some EVs from the Balkans may overwinter in Ethiopia. It is not known where Egyptian vultures wintering in Afar triangle come from. One vulture ringed in Ethiopia in 1970 was later reported from the Moscow ringing office but no more information could be obtained (Ash 1981). The big congregations reported from this area suggest that it is of a great importance for the conservation of the Egyptian vulture. More data on the trends and possible threats has to be collected in order to plan and initiate effective conservation measures to secure the survival of the species.



II. Census of the wintering Egyptian vultures in Afar region, Ethiopia

1. Methods

1.1. Survey design

This survey was conducted between 11th and 15th January 2013. We counted all Egyptian vultures roosting on electric poles and communication towers along the road Welenchiti – Metehara – Awash – Gewana – Mile – Logia – Semera – Serdo. This is the main road from Addis Abeba to Djibouti. Three additional transects were made as follows: Awash – 15 km on the Dire Dawa road; 30km east of Bati – Mile; Semera – Asaita. All Egyptian vultures were aged following Clark and Schmitt (1998). Vultures in first plumage were considered as juveniles, second and third plumages as immature, fourth and fifth plumages as subadult and adult plumage. All pylons along the road were counted and pylon type was described. Counts were conducted between 15:30 and 18:30h (local time). From one counting point all visible pylons in maximum 1km radius were counted. We described the habitat from every counting point. Seven habitat types were used: open landscape, open landscape with scares scrub and trees, bush, semidesert, desert, settlement, agricultural fields.

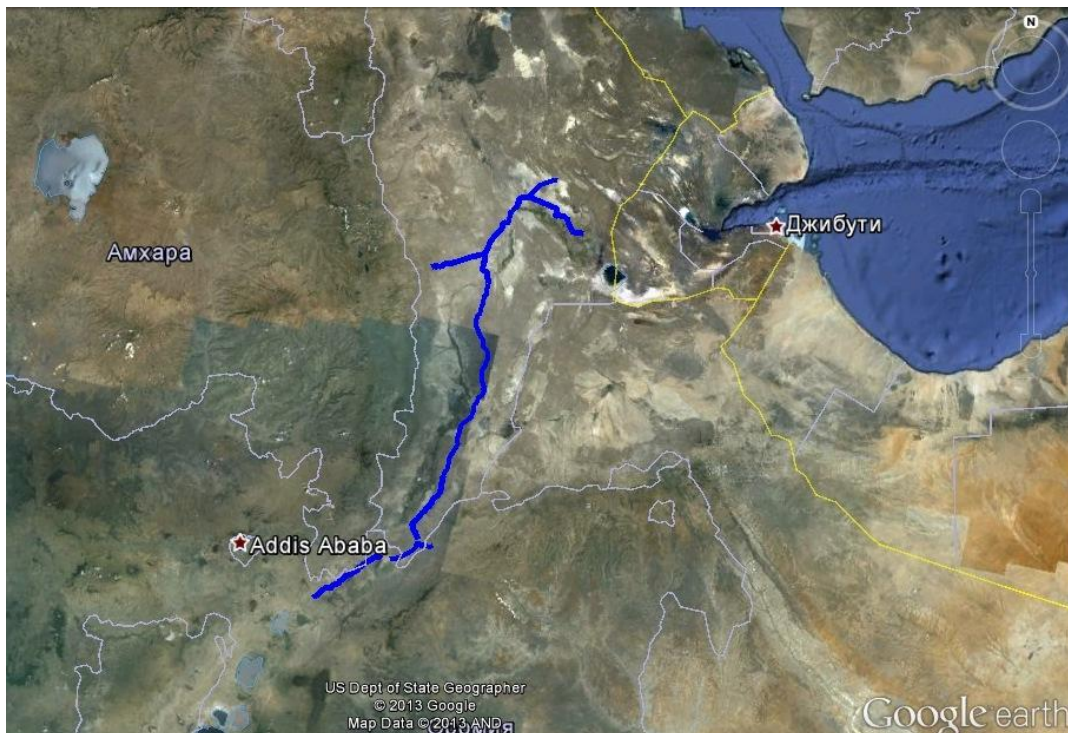


Fig.1 Study area



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1.2. Teams and participants

The survey was conducted by two teams:

Team 1:

1. Yilma Abebe (EWNHS)
2. Volen Arkumarev (BSPB)
3. Ibrahim Hashim (Sudanese Wildlife Society)
4. Ziad Barkhadle (Ministry of National Resources, Somalia)

Team 2:

1. Stoyan Nikolov (BSPB)
2. Hassan Djazouli (Ministry of Ministry of Environment and Watersq Chad)
3. Eleyeh Abdillahi (Djibouti Nature/Birdlife Djibouti)

2. Results and Discussion

During the survey 4643 electric poles and 8 communication towers along 618km roads were checked for roosting Egyptian vultures. Vultures were concentrated in the surroundings of the main towns and villages along the road and almost absent in remote areas. We counted a total of 1082 Egyptian vultures roosting on 172 electric poles and 4 communication towers. For comparison in December 2009 and December 2010 for the same transect respectively 1424 and 1400 EVs were recorded (BSPB and EWNHS unpubl. data). In this survey we recorded relatively lower number of roosting Egyptian vultures in Afar region in comparison to the past two surveys which might be due to the different time period and some local movements of the wintering vultures or is a signal for a decline in the population. However the results from these three surveys compared to the reported by Sigismondi and Politano (1996) 1473 EVs counted for only 75km of power lines in 1994 shows a high decline over the period of 15 years.

2.1. Age structure

The age of 95% of the Egyptian vultures was defined following Clark and Schmitt (1998). Adults were 509 (49%) of them, 141 (14%) were subadults, 154 (15%) juveniles, 156 (15%) immatures and 68 vultures (7%) were recorded as juveniles or immatures (Fig.2).

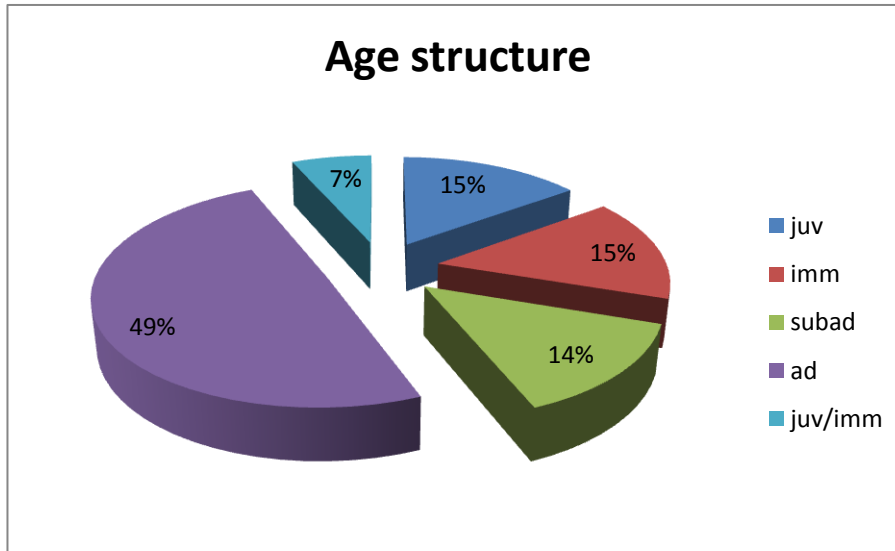


Fig.2 Age structure of roosting Egyptian vultures

2.2. Roosting places

All recorded Egyptian vultures were roosting on electric poles and communication towers. Four different types of electric poles were recorded in the study area as follows – metal high voltage A-shaped pylons, metal low voltage T-shaped pylons, metal low voltage П-shaped pylons and wooden pylons (see Annex 1). We unified the two metal low voltage types of pylons into one group. Egyptian vultures were roosting on 172 electric poles out of 4643 and 4 communication towers out of 8 recorded in the survey area. Most of the vultures were found on the high voltage electric poles as roosting substrate (88%). This type of electric poles serve low risk of electrocution and is safe for the birds. Only 10% of the EVs were roosting on low voltage electric poles which serve a very high risks of electrocution. Communication towers were chosen as roosting places by 4% of the vultures (Fig. 3). We didn't find any electrocuted Egyptian vultures.



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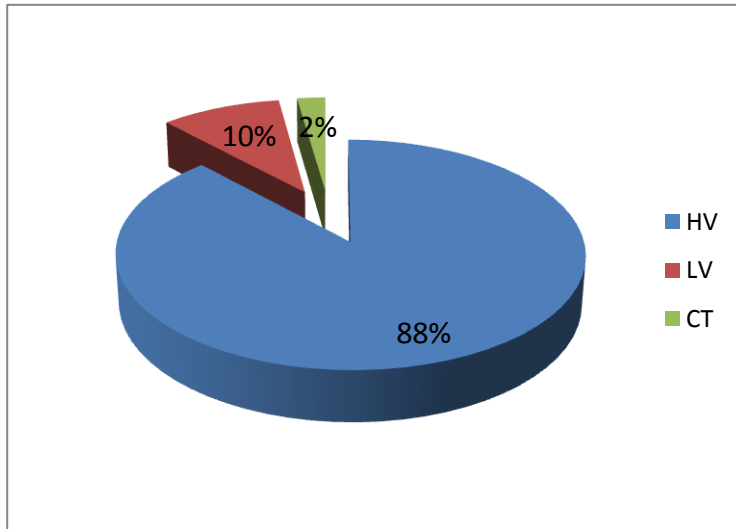


Fig.3 Type of pylons used by EVs for roosting (HV – High voltage pylon, LV - Low voltage pylon, CT – Communication tower)

2.3. Habitat types

Egyptian vultures were recorded at altitude between 350 and 1200 m. a. s. l. Vultures were more abundant in the lower parts of the survey area. In the semidesert habitat were recorded 54% (588) of the Egyptian vultures. This is the area between Bati and Semera. It is inhabited by nomads and their cattle. In these places we observed also some wild animals like gazelles and predators like jackals. In the desert east of Semera on the road to Djibouti and south of Semera on the road to Asaita were counted 313 Egyptian vultures (28%). Although during the day vultures are feeding in and close to the villages they avoid roosting there because of disturbance. No vultures were recorded in agricultural field. Higher was the number of Egyptian vultures roosting in open land landscape (104 birds, 10%) (Fig.4)

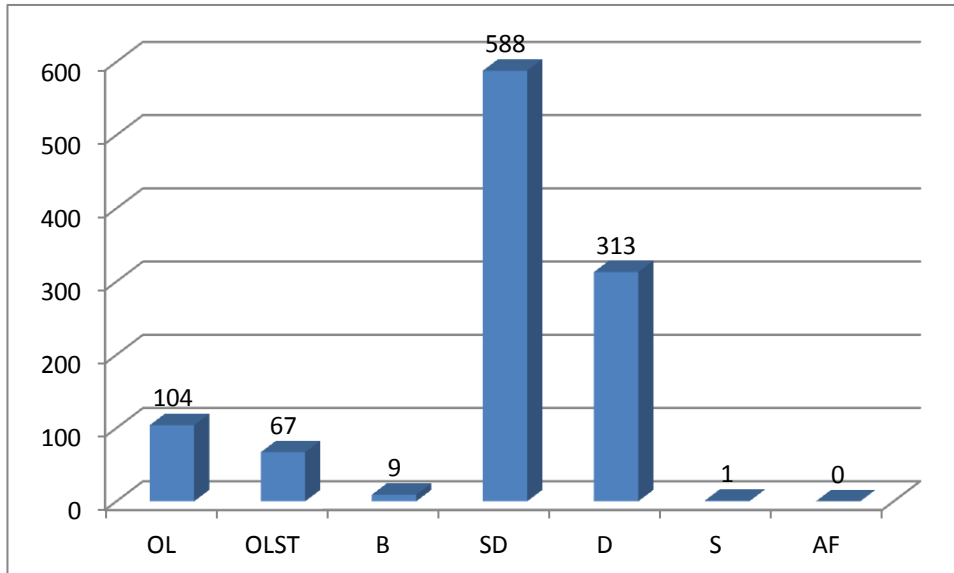


Fig.4 Number of EVs roosting in different habitats (*OL – Open land; OLST – Open land with scarce scrub and tress; B – Bush; SD – Semidesert; D – Desert; S – Settlement; AF – Agricultural fields*)

2.4. Threats

We didn't find any dead Egyptian vultures during the survey. Two dead Marabous (*Leptoptilos crumeniferos*) were found on the rubbish dump of Logia but reasons are unknown. Electrocution seems to be not of a great concern as only 10% of the Egyptian vultures are roosting on low voltage electric poles which pose risk of electrocution. The majority of the vultures prefer the safe high voltage pylons. Although most of the men from the local nomadic groups are armed with guns we have no indications that shooting is a serious threat or that people have a negative attitude towards vultures. The most serious potential threat seems to be nonintentional poisoning. From the Local Veterinary Department placed in Semera town we received information that they use poison (strychnine) to regulate the number of stray dogs. They scatter poison baits with strychnine and according to the official rules after a poisoning campaign they collect and bury all poisoned dogs. However this seem to be a serious threat and more information on that issue have to be collected.



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III. New territories and nests of Egyptian vultures found during the training seminar

In the period 16-19.01.2013 as a final part of the training seminar we searched for occupied territories and nests of Egyptian vultures in the plateaus of Dill Mountain and the canyon of Debre Libanos. We found 4 occupied territories and the nests of two of these pairs (Table 1).

Place	GPS coordinates	Notes
K'ulf Amba	N11.89677 E39.33496	One pair displaying in the area at 3500m a.s.l. Nest not found
Siraba	N11.91871 E37.92244	Suitable cliffs with colony of Ruppell's vultures and one EV roosting in a niche with typical whitewashes. Nest not found
Debre Libanos	N9.73334 E38.81591	One pair with nest on a big cliff complex on the East side of the canyon
Debre Libanos	N9.73334 E38.81591	One pair with nest on the West side of the canyon, beneath the Lodge

IV. Acknowledgements

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VI. Appendix: Pictures of different types of electric poles

1. Metal high voltage electric pole



2. Metal low voltage T-shaped electric pole





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3. Low voltage П-shaped electric pole



4. Wooden electric pole





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5. Communication tower



Egyptian Vulture (*Neophron percnopterus*) Survey in Sudan

Ibrahim M. Hashim

Sudanese Wildlife Society

26.3.2013

Introduction

Based on the agreement between the Sudanese Wildlife Society (SWS) and the Bulgarian Society for the protection of birds (BSPB), a survey of the Balkans Egyptian vulture (*Neophron percnopterus*) was conducted along its habitat in North Kordofan State bordering Eastern Darfur. Terms of references were to report the concentrations of the Egyptian vultures, habitat types, land management, livestock numbers and types and potential threats. These were to be collected from literature, available data and contacts with local people along the assigned area.

Habitat types

The Balkan Egyptian vultures winters in Sudan in a large area, extending from central, western and Southern Darfur to the western portion of South Kordofan State. The climate in the wintering area is characterized by division of seasons as:

- Winter or dry season (December – February);
- Advancing monsoon season (March – May); and
- Retreating monsoon season (October – November)

Rainfall rarely exceeds 700 mm, and is relatively erratic with a combination of short - and long-term droughts, and periods of heavy rains. The most important features of the wintering area are the *wadis*, the Sahel belt, the Marra plateau, the Nuba Mountains and the wetlands.

Wadis: *Wadis* or *Khors* (dry seasonal water courses) are ecological hotspots within savannah and semi-desert environment. Drainage and infiltration from seasonal rainfall events concentrate beneath the dry stream bed, and support trees and short-lived grasses, in addition of high densities of the most drought-resistant shrub species.

The Sahel Belt: The Sahel belt which extends from Senegal eastward to Sudan forms a narrow transitional band between the arid Sahara to the north and the humid Savannah to the South. With eight to seven dry months per year, it has an approximate annual rainfall of 300 – 600 mm. The bulk of agriculture is practiced within and to the south of the Sahel belt so most of the original landscape is now

converted to flat, open fields with limited tree cover. In its natural State, the Sahel is characterized baobab and acacia trees and spares grass cover.

The Marra plateau: the Marra plateau is a rugged volcanic range that occupies approximately 80,000 km² in central Darfur, with an average altitude of 1,500 m and a maximum elevation of 3,000 m at Jebel Marra. The higher and most southerly parts of the plateau have a wetter microclimate (over 600 mm rain per year) than the surrounding area, which is relatively arid with erratic rainfall. The plateau originally had extensive woodlands, which have been partly removed for agricultural developments.

The Nuba Mountains: The Nuba Mountains are a set of widely spaced small mountains located in the centre of Southern Kordofan State. Their average altitude is 900 m with a maximum elevation of 1,326 at Jebel Heiban. They are relatively deep-sided with extensive hinterlands and a wetter microclimate that results I higher density-density forest coverage than the surrounding savannah,

Savannah: Large areas of central Sudan are savannah, classified as low-density woodland, mixed scrub and grassland. Within this broad class, the density and proportions of the three vegetation types vary significantly, according to regional climates, soil types, topography and influence of deliberate seasonal burning, which tends to favor grasslands. Numerous wetlands are found in the savannah, their water-holding capacities vary considerably. While most of them dry out late in the dry season, few wetlands hold water year-round, and these are important both for wildlife and domestic livestock (UNEP 2007)

Darfur: According to Ahmed (2008), Greater Darfur territory comprises five states, namely, the North, South, East, Wear and Central Darfur. It is located in the north- western region of the Sudan bordering Chad, to the west, Libya to the north-west and Central Africa Republic to the south-west. The sedentary farmers are generally composed of non-Arab or African ethnic groups and include other groups such as Fur, Massalit, Tama, Tungor, and Birgid who live in the central zone. The most arid zone is inhabited by nomadic and semi-nomadic camel-herding tribes, including Arab ethnic groups such as northern Rezeigat, Mahria, Irygat and Beni-Hesain and non-Arab groups such as Zaghawa and Maidob. These groups are collectively known as Abbala (camel breeders). The southern and eastern zones is largely inhabited by the cattle-herding Arab tribes known as the southern Rezeigat of the Baggara , Habbania , Beni-Halba , Taisha and Fellata, which are collectively known as Baggara (Cattle herders).

According to MOAR (table below) in 2002, Darfur accounted for 21% of cattle, 22 of % sheep and goats, 24 % of camels, 31% of the donkeys and 63 % of the horses in Sudan .

Table 1. Numbers of Livestock in the five states of Greater Darfur

State	Cattle	Sheep	Goats	Camels	Donkeys	Horses
North Darfur	628,530	3,396,505	2,656,808	397,172	700,293	16,907
South Darfur*	3,851,663	3,471,773	2,756,688	74,950	535,129	233,986
West Darfur**	3,752,195	3,528,225	3,236,112	286,989	805,997	175,828
Total	8,182,388	10,396,503	8,649,608	759,111	2,041,419	426,721

Source: MOAR, (2002)

*Now divided into South and Eastern States

**Now divided into West and Central States

Land management

In all Sudan and except for the privately owned land, which is no more than 6 million feddans out of a total of 600, all land is government owned. The privately owned land is confined to the banks of the river Nile system, mostly in the northern Sudan. All other types of land are owned by the state. The right of use of these lands is vested in communities. The root of the law is the institution of the *Dar*, the communal land-use and customary law, which was brought by the migrating Arabs into Sudan.

The colonial administration did not interfere with the communal land use system. Land laws were introduced only to regulate agricultural development. These were meant to safeguard, through the legal settlement of claims, the interests of the traditional users.

The process of land settlement occurred in those areas in the central and south eastern clay plains where irrigated or mechanized agriculture was developed. Although the land laws apply to all other parts of the country, no such process of land settlement occurred outside the clay plains. The traditional sector, particularly in the western Sudan, still retains the communal system. This is largely due to the fact that much of the development that took place was confined to the modern sector of the economy. The conflicts between farmers and herders are due to the conflicts over grazing and cultivation interests in communally used resources.

It is about time that land survey, legal settlement of rights of use, categorization of land into land use classes such as agricultural production, pasture, forestry, roads, nature reserves and human settlements is considered and implemented. This is the only way for peaceful, sustainable and judicious future development planning and management of resources. The pressure on land increases with the growth of population and the need for planning becomes inevitable. Improvements to be brought about in the present system of land use will be reflected in maintaining present levels of resources and prevent their depletion or degradation. This will be an indirect method of large-scale conservation of biological diversity (Bashir 2000)

Surveys

A preliminary survey was conducted in some villages and towns along southwestern North Kordofan's borders with Darfur. Almost all the inhabitants were not familiar with the Egyptian culture. Based on this, we took the liberty to extend the survey to some accessible areas in Darfur so the fund allocated to the survey could be used effectively. Contacts with members of SWS suggested that East, Central and West Darfur States were the likely areas to be surveyed, using public transport. Accordingly, two teams were formed: two researchers were to survey the accessible areas in the East State, five the Central and West states. Each team provided an estimate of the survey cost (Annex 1).

Eastern Darfur: The survey covered five slaughter houses in five towns as well as pastoralist range along Bahr Alarab. Direct contact with local community indicated that

they were not familiar with the Egyptian vulture. While it was not encountered during the field work from January 25 to February 15 2013, the inhabitants gave contradictory description of the Egyptian vulture. Some of them said that the bird visits the area during the rainy season. Habitat in eastern Darfur resembles that of the Western Kordofan and it is likely that the Egyptian vulture winters far away from this area. The important findings in the survey of Eastern Darfur is that a breeding site of raptors was encountered in habitat dominated by *Acacia seyal*, *Balanites aegyptiaca*, *Ziziphus-spina-christi*, *Tamaridus indica* and *Borassus aethippum*. Numerous nests with chicks were seen.

West and Central Darfur: The two states were surveyed during the period from 3 February to the 1st March 2013. The survey covered five sites (Table 1) in the two states.

Table 1: Observations of the Egyptian vulture (*Neophron percnopterus*) in West and Central Darfur during the period from 3 February to 1st march, 2013

Site	Date	Numbers seen	Age	Time	Coordinates	Comments
Nertiti	4 February	1	Sub-adult	12:37	12.957219 N 24.042978 S	Perching on <i>Acacia seiberiana</i>
Deleig	22 February	1	Adult	3:13	12.483333 N 23.266667 S	Flying
Al Kuraynik		1	Adult			Shot
Zalengei (Meiram)		1	Adult		12.95 N 23.50 S	Shot
Zalengei (Refugee camp)	29 February	3	Sub-adults	5:03	12.89985 N 23.47687 S	Flying

Few Egyptian vultures were encountered, most of them in Jebel Marra habitat. This does not indicate the rarity of the bird in the region as Jebel Marra could be a good habitat for the bird. Some practical problems limit the survey in this region which forced the surveyors to use public transport only to the major towns in West and Central Darfur. There are no power lines beyond the borders of the cities and towns, so the bird is expected to roost on trees. Only one bird was seen roosting on *Acacia seiberiana* , a very common tree in the West and Central Darfur States, which is assumed to be the most important roosting tree.

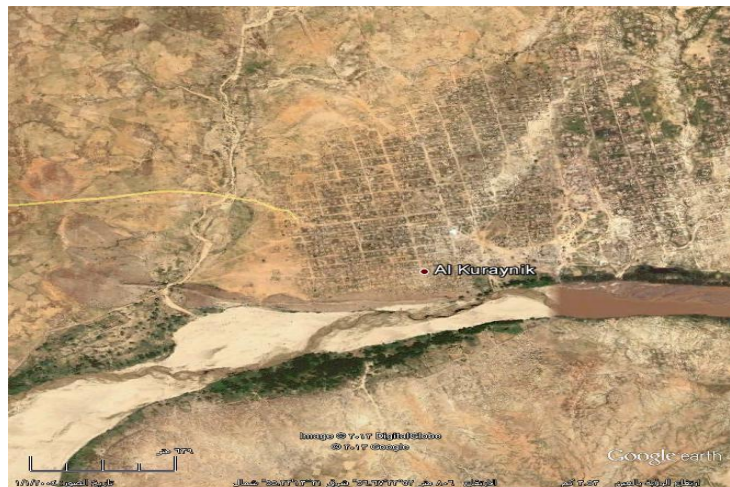


Plate 1. Observation point of an Egyptian

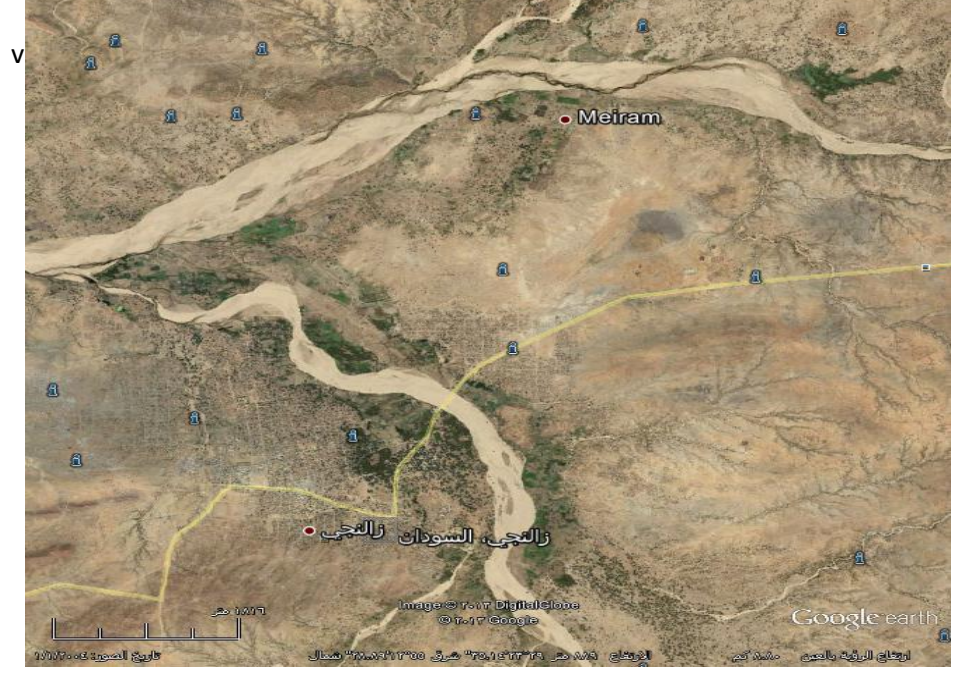


Plate 2. Observation points of Egyptian vulture at Meiram (Zaleingi), I Darfur



Plate 3: Observation points of Egyptian vulture at Zaleingi (Refugee)



Plate 4. Observation point of Egyptian vulture at Deleig, Darfur



Plate 5. Satellite-tagged Egyptian vulture shot at Al Kuraynik, Darfur with a ring (No 3287).

Since they were using public transport, the surveyors were unable to count the Egyptian vulture in roosting sites. West and Central Darfur could hold a large population of the Egyptian vulture because these states support 41% of the livestock in Greater Darfur, in addition to an excellent habitat at Jebel Marra Mountains.

Threats: threats are imperceptible, but could be numerous. Fire arms are out of control in Darfur. There was no evidence that the inhabitants eat the Egyptian vulture, but two tagged birds were shot by the inhabitant and were taken to be

inspected by the security. One from Meiram observation point tagged with Ring no. 64. No information is provided as from which country the bird was tagged. The Second bird was satellite-tagged. This information should be distributed to researchers to find out the one who lost tract of an Egyptian vulture in the vicinity of the observation points



Plate 6. Satellite-tagged Egyptian vulture shot at Al Kuraynik, Darfur.

Recommendations

- Due to the limited mobility in Darfur and the danger of using four-wheel drive vehicles in remote areas, the information collected by this survey, only by using public transport, is useful. Using similar survey methods, it is recommended that South Darfur and Nuba mountains be covered. In the future, efforts should be directed towards encouraging researchers to accompany livestock herders in order to be able to count the Egyptian vulture and identify the threats facing the bird.
- Funds should be considerably increased to cover subsistence and incentives.
- Equipment (3 pairs of binoculars, 3 GPS) and field guides should be provided.

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Annex 1: The Survey cost of the Egyptian vulture in western North Kordofan, East Darfur, Central Darfur and West Darfur in 2013

Serial no	Areas to be surveyed	Days	Individual transport cost, SDG	Total Cost SDG*
1	Zalingei	3	0	
2	Zalingei- Garsella	3	100	
3	Zalingei - Deleig	2	100	
4	Zalingei-Forbaranga	3	300	
5	Zalingei Bendis	2	200	
6	Zalingei- Makgar	2	200	
7	Zalingei-Nerttiti	3	50	
8	Zalingei-Morney	2	50	
9	Zalingei- Geneina	2	160	
10	Zalingei- Habila	3	300	
	Total for 4 surveyors	25	1460	5840
11	Subsistence		50	5000
12	Survey cost for East Darfur			2000
13	Survey cost for West Norht Kordofan			4940
	Total Syrvey Cost			17780

*\$ US = 7 SDG