
Birds of El Ga'ab Depression, Sudan

ZUHEIR NOUR EL DAYEM MAHMOUD

Department of Zoology
Faculty of Science, University of Khartoum
Sudan

YAHIA FADL TAHIR

HAMAD MOHAMED HAMDEEN

Department of Archeology
Faculty of Arts, University of Khartoum
Sudan

Abstract:

Twenty three species of birds belonging to fourteen Families and nine Orders were reported from El Ga'ab Depression. The possibility of finding more species was discussed. The bird species found in the depression adds to the distribution atlas of Sudan's birds.

Key words: Birds, El Ga'ab, Sudan

Introduction

El Ga'ab Depression is situated within North African Sahara zone. It comprises a basin of about 123 km in length with an average width of 4km and an area of approximately 700Km² (Fig. 1). The geology, flora and fauna of the depression were surveyed by Tahir *et al.* (2009, 2012 and 2014). This work is part of a project aiming to make a reference collection of faunal forms from El Ga'ab Depression. The birds of El Ga'ab Depression were neither covered by Cave and MacDonald (1955) nor by Nikolaus (1987) who gave a map to show the distribution recorded of almost every bird species in the Sudan.

Methodology

The study area (Fig. 1) lies west of Dongola at 19° 38.00` N, 30° 18.25` E; 19° 39.00` N, 30° 7.50` E; 18° 33.80` N, 29° 59.80` E; 18° 32.25` N, 30° 22.80` E (Tahir, 2009). The methodology was based on direct observations of birds facilitated by a standard (B-111) 8x30 ZCF binocular and information collected from the locals. Documentation was made by a Nikon DX (AF-SNIKKOR 18-55mm 1:3.5-5.6G and 55-200mm 1:4-5.6G ED) digital camera. Identification followed the field guides of Williams and Arlott (1986), Hollom *et al.*, (1988) and Stevenson and Fanshawe (2003). The study was made during 2014 and 2015.

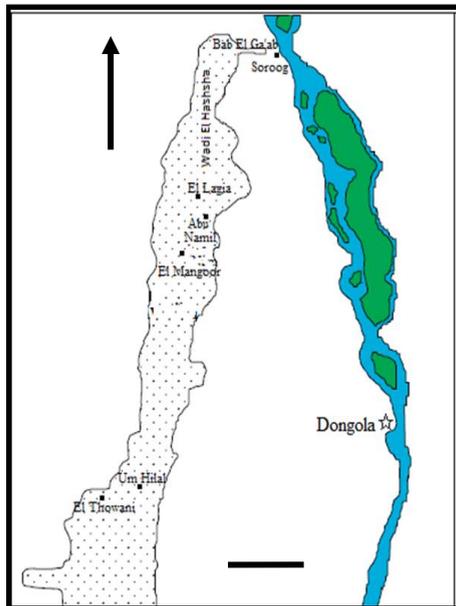


Fig. 1. El Ga'ab Depression (Scale bar=10km)

Results and Discussion

The bird species encountered in El Ga'ab Depression were given in Table 1. Their conservation status followed www.iucnredlist.org (2012) and their status information (B = Breeding record confirmed; M = Migrant including on passage

through Sudan; P = Breeds in Palearctic; R = Resident and W = Winters non-breeding season) followed Dowsett *et al.*, 2014. Both the IUCN Red List and status information (SI) were included in Table 1. The Egyptian Vulture was identified from their characteristic whitish excrement observed in several clefts and the locals adequately described it as well as the Hoopoe. The birds of the depression were reported for the first time and added to the distribution atlas of Sudan's birds published by Nikolaus (1987). The study recorded 23 species included in 14 families and nine orders. *Passer domesticus*, *P. barbatus* and *C. livia* are very common in human residential areas with *L. senegala* more frequent near water pots. Scops Owl (Fig. 2) and flocks of *C. coturinx* were infrequently seen.



Fig. 2. *Otus scops*

Table 1. Birds of El Gab'b Depression.

Scientific name	English name	IUCN Red List	SI
Order: Pelecaiformes 1- Family: Ardeidae			
<i>Ardea cinerea</i>	Grey Heron	LC ver 3.1	M+B+P
<i>Bubulcus ibis</i>	Cattle Egret	LC ver 3.1	M+B+P
<i>Egretta alba</i>	Great Egret	LC ver 3.1	P
2- Family: Threskiornithidae			
<i>Threskiornis aethiopicus</i>	African Scared Ibis	LC ver 3.1	M+B
Order: Ciconiformes Family: Ciconiidae			
<i>Ciconia ciconia</i>	White Stork	LC ver 3.1	P+W
<i>Ciconia abdimi</i>	Abdim's Stork	LC ver 3.1	M+B
Order: Anseriformes, Family: Anatidae			
<i>Alopochen aegyptiaca</i>	Egyptian goose		M+B
Order: Accipitriformes Family: Accipitridae			
<i>Neophron percnopterus</i> ¹	Egyptian Vulture	EN ver 3.1	R+B

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<i>Milvus migrans</i>	Black Kite	LC ver 3.1	M+B+P+W
Order: Galliformes	Family: Phasianidae		
<i>Coturnix coturnix</i>	Quail	LC ver 3.1	P+W
Order: Charadriiformes	Family: Charadriidae		
<i>Vanellus spinosus</i>	Spur-winged Plover	LC ver 3.1	R+B
Order: Columbiformes	Family: Columbidae		
<i>Columba livia</i>	Feral Pigeon	LC ver 3.1	R+B
<i>Oena capensis</i>	Namaqua Dove	LC ver 3.1	M+B
<i>Streptopelia decipiens</i>	Mourning Dove	LC ver 3.1	R+B
<i>Streptopelia senegalensis</i>	Laughing Dove	LC ver 3.1	R+B
<i>Streptopelia turtur</i>	Turtle Dove	LC ver 3.1	P+W
Order: Strigiformes	Family: Strigidae		
<i>Otus scops</i>	Scops Owl	LC ver 3.1	P+W
Order: Bucerotiformes	Family: Upupidae		
<i>Upupa epops</i>	Hoopoe	LC ver 3.1	R+B+P+W
Order: Passeriformes	1-Family: Alaudidae		
<i>Galerida cristata</i>	Crested Lark	LC ver 3.1	R+B
	2- Family: Passeridae		
<i>Passer domesticus</i>	House Sparrow	LC ver 3.1	R+B
	3- Family: Pycnonotidae		
<i>Pycnonotus barbatus</i>	White-vented Bulbul	LC ver 3.1	R+B
	4- Family: Estrididae		
<i>Lagonosticta senegala</i>	Red-billed Firefinch	LC ver 3.1	R+B
	5- Family: Corvidae		
<i>Corvus ruficollis</i>	Brown-necked Raven	LC ver 3.1	R+B
	6- Family: Motacillidae		
<i>Motacilla alba</i>	White Wagtail	LC ver 3.1	P+W

Members of Columbidae (one Family and three species Fig. 3) are usually associated with agricultural fields and oasis while few Brown-necked Ravens were seen in deserted oasis (Fig. 4). Diversity wise Pelecaniforms with two families comes next to the highly diverse and abundant Passeriformes with six Families and six species. The genus *Streptopelia* was represented by three species. Determinant factors in the Depression are included heat stress (Figs. 3, 4 and 5) and game shooting of *A.aegyptiaca* and *C. ciconia*.



Fig. 3. *Streptopelia senegalensis* seeking a shade above the rear tyer of a car, May 2014



Fig. 4. A dead *Corvus ruficollis* probably due to heat stroke, May 2013



Fig. 5. A dead *Ciconia ciconia* probably due to heat stroke, May 2013

Although *Struthio camelus* (Ostrich) Order: Struthioniformes, Family: Struthionidae were not seen and not observed by

elderly residents or caravan men, fragments of their eggs (Fig. 6) were collected from El Hamra (19° 18' 95.2"N, 30° 07' 95.0"E) and found in 32 other sites in the Depression.

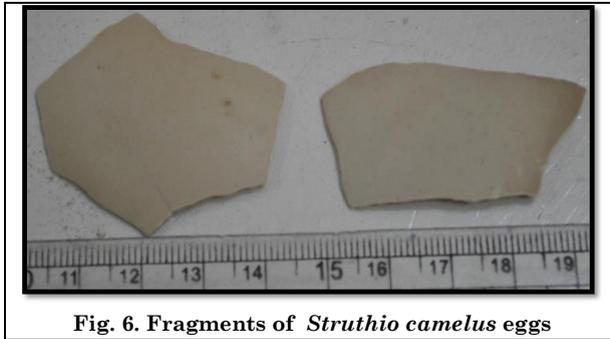


Fig. 6. Fragments of *Struthio camelus* eggs

In Ga'ab El Thowanian slightly saline spring (Fig. 7) about 4km² (19° 02' 36.2" N, 29° 51' 55.9" E), the Egyptian goose *A. aegyptiaca* (Fig.8) and the White Wagtail *M. alba* (Fig. 9) were found. The spring is dominated by *Phragmites* sp. (Poaceae), *Typha* sp. (Typhaceae) and *Cyperus rotundus* (Cyperaceae) and various plants matter which constitute the food for *A. aegyptiaca*. On the other hand its aquatic and terrestrial insects are eaten by *M. alba*.

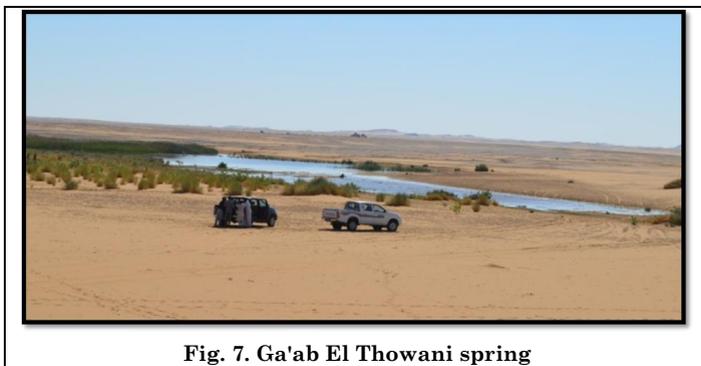


Fig. 7. Ga'ab El Thowani spring



Fig.8. *Alopochen aegyptiaca*.



Fig. 8. *Motacilla alba* note salt crust

The expected advancement in ecological succession in Ga'ab El Thowani spring may attract more aquatic bird species such as Sandpipers, Plovers, Terns and Stints reported eastwards from Dongola area by Nikolaus (1987).

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