

# Avifaunal survey of Lake Kenyatta ecosystem

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## PRELIMINARY REPORT



*By*

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*Funded by*



**African Bird Club**



WORKING FOR BIRDS IN AFRICA

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## **Project Overview**

This report presents a summary of the first set of data collected at Lake Kenyatta. The project seeks to survey the status of avifauna at the lake, the riparian vegetation and associated satellite wetlands. The lake is a freshwater body and is situated just a few kilometers away from the Indian Ocean in Mpeketoni Division, Lamu County at the Kenyan north-Coast. The lake is a major livelihood source for the local community through fishing, grazing, and provision of water for both domestic use and cattle drinking. The lake also provides drinking water for wildlife and a habitat for the locally abundant Hippos. The survey results comprise both reconnaissance and fieldwork avifaunal data collected between 20<sup>th</sup> July 2011 and 10<sup>th</sup> August 2011.

Data were collected by the project investigator (Maurice Ogoma) together with Joseph Njoga, the Lake Kenyatta Beach Management Unit (BMU) Chairman and Jonathan Mwachongo. Jonathan is an experienced field assistant in ornithological data collection and is a member of Arabuko Sokoke Forest Guides Association (ASFGA), a Site Support Group (SSG) of Nature Kenya based at Arabuko Sokoke forest. Throughout this period of data collection, we were always accompanied by at least one community guide who was subsequently trained on avifaunal data collection and use of data collection equipment including binoculars, telescope and a birds' guide.

## **Objectives**

The overall aim of the survey was to assess the conservation status of the L. Kenyatta ecosystem using birds as indicators to provide baseline scientific information for future scientific work. In particular, this preliminary assessment report achieved two out of the three proposed specific objectives:

- a) Documented the birds of Lake Kenyatta and its related habitats.
- b) Conducted local trainings on basic bird identification.

In the next round of field data collection, which will commence after the submission of this preliminary report, we shall assess the current threats to the site, with emphasis on the intensity of its catchment encroachment.

## **Methods**

Data were collected at Lake Kenyatta and in the riparian vegetation to collect waterfowl and terrestrial bird species data respectively. Two methods were used to collect avifaunal data: water-bird counts and timed species counts (TSC). Water-birds were counted to capture the numbers of water-birds that are dependent on the Lake. The counts were conducted in July purposely to capture the migratory species that could use the wetland for feeding and roosting.

TSC was used to give a more complete list of terrestrial bird species and check their commonness in the adjacent riparian habitats. A total of 22 TSCs were conducted in the riparian vegetation during the entire period. In addition, opportunistic observations were used to record additional species that were not captured by the two main data collection methods.

## Preliminary Results

A total of 142 species were recorded during the waterfowl counts, TSCs and opportunistic observations (**Appendix 1**). Spur-winged Goose was the most abundant water-bird species counted followed by Cattle Egret, Sacred Ibis and African Open-billed Stork in that order. Of notable presence was the globally Vulnerable Madagascar Pranticole, counted at the nearby Lumshi wetland. Among the terrestrial species, the globally Endangered Egyptian Vulture and two globally Near-threatened species (Fischer's Turaco and Bateleur) were recorded. Moreover, 29 bird species recorded were migrants in different migratory categories: Palearctic, Malagasy and Afrotropical (OS-c, EANHS, 2009).



Little Egret (left) and Marabou Storks (right) at L. Kenyatta (Photos: M. Ogoma)

The most common terrestrial bird species during the TSC counts were Zanzibar Sombre Greenbull, Red-eyed Dove and African Palm Swift. They were followed closely by Emerald-spotted Wood Dove, Collared Sunbird, Grey-headed Kingfisher, African Golden Palm Weaver and Tawny-flanked Prinia in that order. Additional details on family and species will be provided in the final report.



Fischer's Turaco (left) and Lizard Buzzard (right) in L. Kenyatta riparian vegetation (Photos: M. Ogoma)

The project was highly welcome locally and received a lot of support from the traditional fishing community of Lake Kenyatta. Members of the local BMU were introduced to avian data collection. The

chairman of the BMU accompanied our team for data collection and was our local point-man. Local young enthusiasts were trained on bird data collection, use of data collection equipment and bird guide. It is envisaged that the skills they learnt from us will be instrumental in future conservation activities at Lake Kenyatta (see pictures below).



Jonathan Mwachongo (left) discussing biodiversity conservation at L. Kenyatta with Joseph Njoga (BMU chairman, in cap), Theophilus Kasoso (Chief Fisheries Assistant, in blue T-shirt) and Tom Kute (BMU member) (Photo: M. Ogoma)



Training of locals and BMU members on water-birds identification at L. Kenyatta (Photos: J. Mwachongo)

## References

OS-c, EANHS. 2009. *Check-list of the birds of Kenya*. 4<sup>th</sup> Edition. Ornithological Sub-committee, Nature Kenya—the East Africa Natural History Society.

Zimmerman, D. A., Turner, D. A. and Pearson, D. J. 1996. *Birds of Kenya and northern Tanzania*. Halfway House: Russel Friedman.

**Appendix 1:** List of birds recorded at Lake Kenyatta (OS–c, EANHS, 2009; Zimmerman *et al.*, 1996).

S/No.	Common name	Scientific name
1	Fulvous Whistling Duck	<i>Dendrocygna bicolor</i>
2	Spur-winged Goose	<i>Plectropterus gambensis</i>
3	White-faced Whistling Duck	<i>Dendrocygna viduata</i>
4	Egyptian Goose	<i>Alopochen aegyptiaca</i>
5	Knob-billed Duck	<i>Sarkidiornis melanotos</i>
6	Little Grebe	<i>Tachybaptus ruficollis</i>
7	Saddle-billed Stork	<i>Ephippiorhynchus senegalensis</i>
8	Woolly-necked Stork	<i>Ciconia episcopus</i>
9	Marabou Stork	<i>Leptoptilos crumeniferus</i>
10	Yellow-billed Stork	<i>Mycteria ibis</i>
11	African Open-billed Stork	<i>Anastomus lamelligerus</i>
12	African Spoonbill	<i>Platalea alba</i>
13	Hadada Ibis	<i>Bostrychia hagedash</i>
14	Sacred Ibis	<i>Threskiornis aethiopicus</i>
15	Glossy Ibis	<i>Plegadis falcinellus</i>
16	Black-headed Heron	<i>Ardea melanocephala</i>
17	Goliath Heron	<i>Ardea goliath</i>
18	Great White Egret	<i>Ardea alba</i>
19	Striated Heron	<i>Butorides striata</i>
20	Grey Heron	<i>Ardea cinerea</i>
21	Yellow-billed Egret	<i>Egretta intermedia</i>
22	Little Egret	<i>Egretta garzetta</i>
23	Purple Heron	<i>Ardea purpurea</i>
24	Squacco Heron	<i>Ardeola ralloides</i>
25	Cattle Egret	<i>Bubulcus ibis</i>
26	Hamerkop	<i>Scopus umbretta</i>
27	Pink-backed Pelican	<i>Pelecanus rufescens</i>
28	Reed Cormorant	<i>Phalacrocorax africanus</i>
29	Great Cormorant	<i>Phalacrocorax carbo</i>
30	African Darter	<i>Anhinga rufa</i>
31	African Fish Eagle	<i>Haliaeetus vocifer</i>
32	Egyptian Vulture	<i>Neophron percnopterus</i>
33	Hooded Vulture	<i>Necrosyrtes monachus</i>
34	Brown Snake Eagle	<i>Circaetus cinereus</i>
35	Bateleur	<i>Terathopius ecaudatus</i>
36	African Harrier Hawk	<i>Polyboroides typus</i>
37	African Goshawk	<i>Accipiter tachiro</i>
38	Little Sparrowhawk	<i>Accipiter minullus</i>
39	Great Sparrowhawk	<i>Accipiter melanoleucus</i>

40	Lizard Buzzard	<i>Kaupifalco monogrammicus</i>
41	Tawny Eagle	<i>Aquila rapax</i>
42	Wahlberg's Eagle	<i>Aquila wahlbergi</i>
43	Black-winged Stilt	<i>Himantopus himantopus</i>
44	Longtoed Plover	<i>Vanellus crassirostris</i>
45	Three-banded Plover	<i>Charadrius tricollaris</i>
46	Spurwinged Plover	<i>Vanellus spinosus</i>
47	African Jacana	<i>Actophilornis africanus</i>
48	Common Sandpiper	<i>Actitis hypoleucos</i>
49	Wood Sandpiper	<i>Tringa glareola</i>
50	Common Greenshank	<i>Tringa nebularia</i>
51	Madagascar Pranticole	<i>Glareola ocularis</i>
52	White-winged Black Tern	<i>Chlidonias leucopterus</i>
53	Common Tern	<i>Sterna hirundo</i>
54	Swift Tern	<i>Sterna bergii</i>
55	Sandwich Tern	<i>Sterna sandvicensis</i>
56	Caspian Tern	<i>Hydroprogne caspia</i>
57	Grey-headed Kingfisher	<i>Halcyon leucocephala</i>
58	Malachite Kingfisher	<i>Alcedo cristata</i>
59	Pied Kingfisher	<i>Ceryle rudis</i>
60	Crested Francolin	<i>Francolinus sephaena</i>
61	Red-necked Falcon	<i>Falco chiquera</i>
62	Red-eyed Dove	<i>Streptopelia semitorquata</i>
63	Ring-necked Dove	<i>Streptopelia capicola</i>
64	Emerald-spotted Wood Dove	<i>Turtur chalcospilos</i>
65	Tambourine Dove	<i>Turtur tympanistria</i>
66	Namaqua Dove	<i>Oena capensis</i>
67	African Green Pigeon	<i>Treron calvus</i>
68	Fischer's Turaco	<i>Tauraco fischeri</i>
69	Yellowbill	<i>Ceuthmochares aereus</i>
70	White-browed Coucal	<i>Centropus superciliosus</i>
71	Gabon Nightjar	<i>Caprimulgus fossii</i>
72	African Palm Swift	<i>Cypsiurus parvus</i>
73	Little Swift	<i>Apus affinis</i>
74	Speckled Mousebird	<i>Colius striatus</i>
75	Lilac-breasted Roller	<i>Coracias caudatus</i>
76	Broad-billed Roller	<i>Eurystomus glaucurus</i>
77	Northern Carmine Bee-eater	<i>Merops nubicus</i>
78	Green Wood-hoopoe	<i>Phoeniculus purpureus</i>
79	Common Scimitarbill	<i>Rhinopomastus cyanomelas</i>
80	Crowned Hornbill	<i>Tockus alboterminatus</i>

81	African Grey Hornbill	<i>Tockus nasutus</i>
82	Trumpeter Hornbill	<i>Bycanistes bucinator</i>
83	Yellow-rumped Tinkerbird	<i>Pogoniulus bilineatus</i>
84	Red-fronted Tinkerbird	<i>Pogoniulus pusillus</i>
85	Brown-breasted Barbet	<i>Lybius melanopterus</i>
86	Lesser Honeyguide	<i>Indicator minor</i>
87	Nubian Woodpecker	<i>Campethera nubica</i>
88	Cardinal Woodpecker	<i>Dendropicos fuscescens</i>
89	Mombasa Woodpecker	<i>Campethera mombassica</i>
90	Retz's Helmet Shrike	<i>Prionops retzii</i>
91	Grey-headed Bushshrike	<i>Malaconotus blanchoti</i>
92	Sulphur-breasted Bush-shrike	<i>Chlorophoneus sulfureopectus</i>
93	Black-crowned Tchagra	<i>Tchagra senegalus</i>
94	Black-backed Puffback	<i>Dryoscopus cubla</i>
95	Slate-coloured Boubou	<i>Laniarius funebris</i>
96	Tropical Boubou	<i>Laniarius aethiopicus</i>
97	Long-tailed Fiscal	<i>Lanius cabanisi</i>
98	African Golden Oriole	<i>Oriolus auratus</i>
99	Black-headed Oriole	<i>Oriolus larvatus</i>
100	Square-tailed Drongo	<i>Dicrurus ludwigii</i>
101	Common Drongo	<i>Dicrurus adsimilis</i>
102	Little Yellow Flycatcher	<i>Erythrocercus holochlorus</i>
103	African Paradise Flycatcher	<i>Terpsiphone viridis</i>
104	Sand Martin	<i>Riparia riparia Riparia riparia</i>
105	Ethiopian Swallow	<i>Hirundo aethiopica</i>
106	Flappet Lark	<i>Mirafraga rufocinnamomea</i>
107	Coastal Cisticola	<i>Cisticola haematocephalus</i>
108	Tawny-flanked Prinia	<i>Prinia subflava</i>
109	Grey-backed Camaroptera	<i>Camaroptera brachyura</i>
110	Common Bulbul	<i>Pycnonotus barbatus</i>
111	Yellow-bellied Greenbul	<i>Chlorocichla flaviventris</i>
112	Northern Brownbul	<i>Phyllastrephus strepitans</i>
113	Eastern Nicator	<i>Nicator gularis</i>
114	Scaly Babbler	<i>Turdoides squamulata</i>
115	Zanzibar Greenbul	<i>Andropadus importunus</i>
116	Greater Blue-eared Starling	<i>Lamprotornis chalybaeus</i>
117	Ruppel's Starling	<i>Lamprotornis purpuroptera</i>
118	Black-bellied Starling	<i>Lamprotornis corruscus</i>
119	Violet-backed Starling	<i>Cinnyricinclus leucogaster</i>
120	African Bare-eyed Thrush	<i>Turdus tephronotus</i>
121	Bearded Scrub Robin	<i>Cercotrichas quadrivirgata</i>

122	Red-capped Robinchat	<i>Cossypha natalensis</i>
123	Pale Flycatcher	<i>Bradornis pallidus</i>
124	Collared Sunbird	<i>Hedydipna collaris</i>
125	Olive Sunbird	<i>Cyanomitra olivacea</i>
126	Mouse-coloured Sunbird	<i>Cyanomitra veroxii</i>
127	Amethyst Sunbird	<i>Chalcomitra amethystina</i>
128	Grey-headed Sparrow	<i>Passer griseus</i>
129	Red-billed Buffalo Weaver	<i>Bubalornis niger</i>
130	Grosbeak Weaver	<i>Amblyospiza albifrons</i>
131	Village Weaver	<i>Ploceus cucullatus</i>
132	Golden Palm Weaver	<i>Ploceus bojeri</i>
133	Red-billed Quelea	<i>Quelea quelea</i>
134	Zanzibar Red Bishop	<i>Euplectes nigroventris</i>
135	Dark-backed Weaver	<i>Ploceus bicolor</i>
136	Red-cheeked Cordon Blue	<i>Uraeginthus bengalus</i>
137	Red-billed Firefinch	<i>Lagonosticta senegala</i>
138	Bronze Mannikin	<i>Spermestes cucullatus</i>
139	African Pied Wagtail	<i>Motacilla aguimp</i>
140	Yellow-throated Longclaw	<i>Macronyx croceus</i>
141	Yellow-fronted Canary	<i>Crithagra mozambica</i>
142	Somali Bunting	<i>Emberiza poliopleura</i>