Bird observation in the Ogaden Region Somali Regional State, / Ethiopia A Contribution to the Identification of Important Bird Areas

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Introduction

The Ethiopian Wildlife and Natural History Society (EWNHS) published in 1996 the first issue of Important Bird Areas in Ethiopia, following the 1995 commencement of the IBA project of BirdLife International.

Data to identify and nominate IBAs were available and supplemented by field surveys for many parts of Ethiopia except for the Somali Regional State and the Ogaden region in particular.

In order not to leave this large and ornithologically very interesting part of the country unconsidered, data from decades ago and some scattered information had to be used.

End of 2002 the authors started in order of Al Wabra Wildlife Preservation(AWWP), Qatar the implementation of a wildlife awareness and conservation project in the heart of the remote and in many aspects inaccessible Ogaden region.

Although the extensive field work and awareness work concentrated on critically endangered antelopes and other larger ungulates, bird life was recorded throughout the surveys whenever possible.

Now, the EWNHS intents to update the first IBA inventory and the herewith presented data compilation shall provide an improved base for this project, regarding the Ogaden region and the Somali Regional State as a whole.

Acknowledgement

We honestly thank Sheikh Saoud Bin Mohamed Bin Ali al Thani, AWWP, for his commitment and generous financial support. Without his untiring efforts to preserve the natural heritage of Ethiopia the knowledge about the precious wildlife of the Ogaden region would be still veiled.

We also thank the Naturschutzbund (NABU) Germany for strengthening contacts to EWNHS, financing the participation on bird observation workshops in Ethiopia and supporting the continuing compilation of avian data.

Our thanks go also to the numerous people of the Ogaden region and the staff of the Somali Regional State Wildlife Department who helped to collect the data.

General Information

Although agreed upon among biologists worldwide as perhaps the most interesting part of the Horn of Africa, very little has been done in the Ogaden regarding research and surveillance of biodiversity. The reasons are political unrest during the last three to four decades, flare-up of armed clan conflicts, poor infrastructure and reluctant support on federal level.

The Ogaden region or in geographical terms the "Ogaden basin" is the eastern low lying part of the Somali Regional State of Ethiopia, stretching from the foothills of the Bale and Ahmar Mountains in the East and North up to the circumference of the Somali border.

The landscape slopes gently down from 1.660 m asl at Jigjiiga in the North to about 200 m asl at the Shabelle River valley in the South.

The main part of the Eastern landscape has an altitude between 400 m and 500 m asl.

Three main geological facies shape the topography. Precambrian strongly folded ancient basement rocks (both limestone and sandstone) around the Shabelle River valley and Mesozoic-Jurassic and Cretaceous, weakly folded sediments in the central part. In both parts gypsum can be found in large layers at or close to the surface. Finally, in the most eastern triangle Tertiary-Palaeocene deposits are found.

Also basaltic outcrops placed like inselbergs can be found between Kebri Dehar and Warder as well as North of Warder. Areas covered with spherical basalt stones, so-called "bombs" are evidence of ancient volcanic activity.

All of the area belongs to an arid climate were evaporation exceeds precipitation. Mean annual rainfall is about 470mm; mean average temperature is 27°C with a mean maximum of about 35°C. The area knows two rains seasons, GU season with heavy rain in late April to June and DEYR season with more scattered rain in October to November.

Altitude and climatic parameters are combined as the agro-climatic zone called "Kolla".

The only permanent water course is the Shabelle River in the South. The major seasonal river is the Fafen, collecting the discharge of numerous temporary tributaries on its path from North to South.

The economy of local communities depend mostly on transhumant pastoralism (camel, sheep, goats and cattle), some rain fed cultivation along seasonal rivers, gardening around larger towns, and some irrigated crop and fruit cultivation along the Shabelle River.

The prevailing vegetation belongs to the *Acacia-Commiphora-Boswellia* thornbush savannah, a typical plant association of semi-arid to arid conditions at the Horn of Africa. It is directly related to the Somali flora with well more than 1.200 species out of more than 120 families. The Somali flora is very rich in comparison with other arid areas in Africa and several hundred species are found nowhere else in the World.

The scientific importance of the region can also be seen from some results of the authors.

The Silver Dikdik (Madoqua piacentinii) for example was known only from coastal areas of Somalia and is now confirmed for the Ogaden (see Table 2).

In May 2006 a botanical survey was carried out with the assistance of Prof. Mats Thulin from the University of Uppsala, Sweden which yielded in 15 new plant species and about 40 first time records for Ethiopia (THULIN in preparation). Some more species, known only from single herbarium specimens could be confirmed, too.

Methodology

As mentioned above, field work focused on observation of ungulate species in this area. Recording was usually done by first following hints of local people, next tracing footprints and stalking for animals. Once an area with numerous tracks was found, point observations mainly from tree tops were conducted. This method gave a good opportunity to also identify smaller, bush dwelling birds feeding nearby or in the canopy of the observation tree.

Additionally, regular transect or road counts from a slow moving vehicle were conducted. With this method conspicuous larger birds like ostrich, bustards, fowls or birds of prey could be recorded.

Mist netting was never applied. Hence, many of the more cryptic living small birds or those species difficult to identify on a distance by handy binoculars (i.e. warblers, cisticolas and so forth) are underrepresented in the records.

Observation Area

The bulk of records were collected in the Qorahey Zone of the Somali Regional State, particularly in the area between Kebri Dehar and Shilabo, which turned out to be the easiest accessible and peaceful area for most of the ungulate surveys.

Less frequent records were gathered from adjacent areas like the Warder district up to the Somali border, the River Shabelle valley, its confining rock cliffs and water catchment area to the North, the road stretch from Jigjiiga to Kebri Dehar and the Nogob area, west of the line Kebri Dehar – Danaan.

Since the vegetation cover and structure is quite similar over vast parts of the Ogaden, it seems possible to transfer records as valid to these neighbouring areas.

In the remarks column of the bird list (Table 1) some areas with specific bird observations are repeatedly mentioned. These areas are shown in Figure 1 and 2.

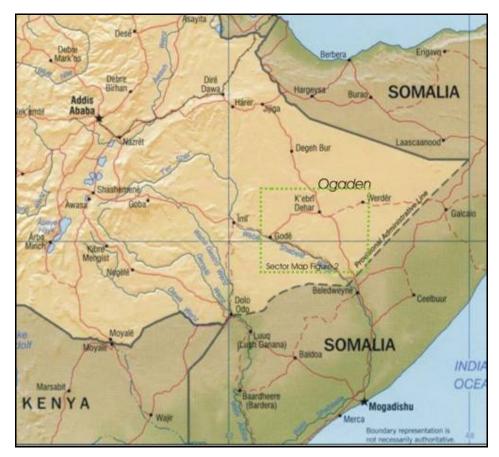


Figure 1: Overview map

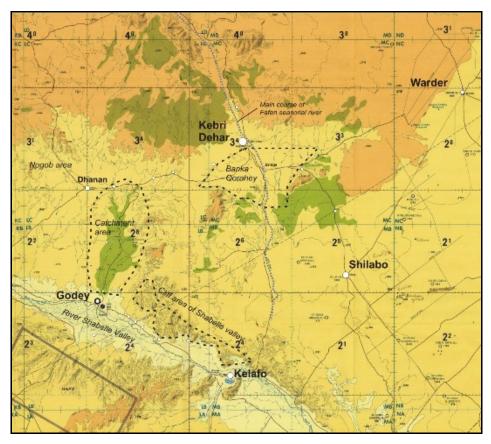


Figure 2: Main Survey Area, sector magnification from Fig. 1

Results

In Table 1 the 300 bird species so far identified in the field are listed. The following comments explain the table entries.

Column 1 and 2: Scientific and English names

Scientific names are given according to AVIBASE – THE WORLD BIRD DATA BASE of BIRDLIFE INTERNATIONAL. Synonyms found in URBAN & BROWN (1971) or V. PERLO (1995) are given in parentheses. The same scheme applies for English names.

Bird families are ordered according to Avibase differing slightly from the order of URBAN & BROWN (1971).

In case a particular subspecies might be relevant for the observation area but could not be clearly identified, the name of the most likely subspecies is added with a question mark.

Shaded scientific names indicate an entry in the Red List of endangered species. The actual status is then mentioned in the remarks column.

Somali names are omitted although several were collected from the local society. Except of large and conspicuous species, birds are of little concern for nomads and villagers and are not specifically named. Often just one name is used for a whole group of similar looking species and hence vernacular Somali names are so far not very meaningful.

Column 3: Checklist of the Birds of Ethiopia

Records are compared with entries in the checklist of URBAN & BROWN (1971). Unlike the Avibase checklist this reference differentiates seven geographical regions in Ethiopia and is thus preferred. Species allocated to SE Ethiopia and recorded below an altitude of 1.000 m are regarded valid for the Ogaden part of the Somali Regional State. The symbols in the column read as follows:

- = mentioned for SE Ethiopia or referred to as "throughout the country" and hence valid for the observed area
- O = only mentioned for other parts of Ethiopia
- * = not mentioned in URBAN & BROWN but in the AVIBASE checklist
- = not mentioned in either of the above references

Shaded cells in this column indicate Somali-Massai biome species.

Column 4 and 5: Observation Frequency

The observation frequency classification is adopted from B. v. Perlo (1995) which is considered a very widely used field guide to East African birds. The distribution maps differentiate between Ethiopian regions and can even be taken as a complement to other used checklists.

The columns compare observation frequencies given in the field guide with own estimates based on numerous field notes. Information about species' status is given as follows:

Status	Chance of seeing species							
C = Common	60 – 100 %; nearly on every field day							
F = Frequent	10 - 60 %; at least once a week with intensive							
	observation							
U = Uncommon	< 10 %; observable only if deliberately searched for at suitable habitats or records are strongly season dependent							
R = Rare	Negligible; usually a matter of luck or if several suitable conditions match							
?	status for the Ogaden not clear							
-	not indicated in v. Perlo for the Ogaden region							

However, observation frequencies should not equate with population status. To some extend this may be valid for conspicuous birds also recordable by voice or footprints (*i.e.* Ostriches). For mainly nocturnal or cryptic small birds, the population status might be higher than observation frequency implies.

Column 6: Seasonality

This column indicates whether the appearance or the observation frequency of bird species show a significant or at least recognisable seasonal dependency. This of course applies for all true migratory species. Palaearctic migrants are thus mainly seen in the months November to March. Movements of inner-African migrants may be influenced by shifting conditions in parts of there distribution range and they appear in larger numbers in the Ogaden only during a particular time of the year.

Other species may aggregate at certain places in times of suitable conditions or specific habitat offers. Storks, waders or water dependent birds in general may flock at flooded plains or temporary large water ponds during the two rainy seasons from April to June (GU Season) and October to November (DEYR Season). Others may appear in larger numbers if particular food sources are accidentally abundant.

The column entries try to reflect this seasonality in different terms. If "all seasons" is given, the species can be seen definitely throughout the year. If a cell remains blank no specific statements are appropriate; the species may or may not be found throughout the year. The next column then gives some more explanations.

Column 7: Remarks

Almost self-explaining, noteworthy comments are given here.

Table 1: Compilation of Bird Records in Qorahey Zone / Ogaden and adjacent areas

Scientific Name English name		Checklist	Observation Frequency			
	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
Struthionidae						
Struthio camelus molibdophanus	Ostrich	•	-	F	all seasons	in open areas as well as in denser bush land, traces can be found at each bush walk
Podicipedidae		•				
Tachybaptus (Podiceps) ruficollis	Little Grebe	•	С	F	mainly rainy season	in larger ponds during the rainy season quite common; however, very little depressions or ponds are water logged throughout the year
Pelecanidae		•				
Pelecanus rufescens	Pink-backed Pelican	•	С	U	only rainy season	to be seen at permanent large ponds and during the rainy season also at large waterlogged depressions
Phalacrocoracidae		•				·
Phalacrocorax carbo	Great Cormorant	•	С	U	mainly rainy season and river sides	at the Shabelle river as the only permanent river quite frequent; else occasionally at larger water stagnations
Phalacrocorax africanus	Long-tailed Cormorant	•	F	U	mainly rainy season and river sides	at the Shabelle river as the only permanent river quite frequent; else occasionally at larger water stagnations
Anhingidae		•	•	•	•	, , , , , , , , , , , , , , , , , , ,
Anhinga rufa	African Darter	•	С	U	mainly rainy season	to be seen at permanent large ponds; during the rainy season also at large waterlogged depressions
Ardeidae		•				
Egretta garzetta	Little Egret	•	F	U	mainly rainy season	along the Shabelle river usually be seen; during and after the rains seen on vegetated plains and at waterlogged areas
Bubulcus (Ardeola) ibis	Cattle Egret	•	С	С	mainly rainy season	along the Shabelle river usually be seen; during and after the rains seen in large groups on vegetated plains
Butorides striatus	Green-backed Heron	•	С	R	perhaps seasonal outside permanent rivers	seen only at the Shabelle river and the seasonally flooded Fafen river
Ardeola ralloides	Squacco Heron	•	?	U	mainly rainy season	along the Shabelle river usually be seen; during and after the rains seen at waterlogged places
Ardea melanocephala	Black-headed Heron	•	С	С	throughout the year	even in dry season observable in bush land, often be spotted perching on termite mounts
Scopidae						
Scopus umbretta	Hamerkop	•	С	F	only rainy season	seen at waterlogged places and small seasonal rivers
Ciconiidae						

		Checklist	Observation	n Frequency		
Scientific Name English	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
Ciconia ciconia	White Stork	•	С	С	Palaearctic migrant	From November to March to be seen in large groups at permanent waters and on vegetated plains. Aggregations may reach up to 500 individuals and more
Ciconia abdimii	Abdim's Stork	0	F	С	only rainy season, intra-African migrant	during and after the rains seen in huge numbers at almost each open plain
Leptoptilus crumeniferus	Marabou	•	С	С	throughout the year	very common close to all kind of settlements; in the bush quite uncommon but appears quickly at carrion
Mycteria (Ibis) ibis	Yellow-billed Stork	•	U	F	mainly rainy season	at the Shabelle river common, in other parts mainly at waterlogged places or vegetated plains, often associated with other storks
Anastomus lamelligerus	African open-billed Stork	0	?	R	only rainy season intra-African migrant	along the Shabelle river more frequent at swampy areas, in other parts only if rains were long and heavy causing temporary swamp areas; hence mainly at the water catchments area towards the Shabelle valley
Threskiornithidae	1	•	•			
Bostrychia hagedash	Hadada Ibis	•	U	U		at the Shabelle river more frequent, in other parts accidentally at waterlogged places
Threskiornis aethiopica	Sacred Ibis	•	С	С	all seasons	very common close to larger settlements, in the open bush mainly at moist places after the rains
Platalea alba	African Spoonbill	•	F	U	mainly rainy season	at the Shabelle river more common, in other parts only at waterlogged places and nearby vegetated plains, often associated with other storks
Phoenicopteridae	1			•	•	
Phoenicopterus ruber	Greater Flamingo	0	-	F	seasonal, intra- African migrant	at Jigjiiga dam quite regularly seen; in other parts only during heavy rains at shallow water stagnations
Anatidae			•			
Dendrocygna viduata	White-faced whistling Duck	•	F	F	rainy season	at permanent ponds or long lasting waterlogged depressions
Alopochen aegyptiaca	Egyptian Goose	•	С	С	all seasons	at permanent ponds often in huge numbers i.e. Jigjiiga dam
Sarkidiornis melanotus	Knob-billed Guck	•	F	U		so far seen only at permanent ponds in moderate numbers
Nettapus auritus	African Pygmy Goose	•	U	U		so far seen only at permanent ponds in small numbers
Aythya fuligula	Tufted Duck	•	-	R		only seen at permanent pond near Jigjiiga
Anas erythrorhynchos	Red-billed Teal	•	F	U		only to be seen at permanent ponds
Anas clypeata	Northern Shoveler	•	F	U	Palearctiv migrant	only seen at permanent pond near Jigjiiga

		Checklist	Observation	Frequency		
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
Accipitridae						
Elanus caeruleus	Black-shouldered Kite	•	F	U	all seasons	
Chelictinia rioccourii	Scissor-tailed Kite	0	-	U	mainly rain season, intra-African migrant	can be seen rarely throughout the year but more sightings are after the rains on open plains
Milvus migrans	Black Kite	•	С	С	all seasons	mostly associated with larger settlements
Haliaetus vocifer	African Fish Eagle	•	U	F	all seasons	seen only but regularly at the Shabelle river
Neophron percnopterus	Egyptian Vulture	•	F	F	all seasons	often one of he first vultures appearing at carrion
Necrosyrtes monachus	Hooded Vulture	•	С	С	all seasons	frequently near small settlements, very common at carrion
Terathopius ecaudatus	Bateleur	•	С	F	all seasons	throughout the region
Circaetus gallicus pectoralis	Short-toed Snake Eagle	0	U	С	all seasons	
Gyps africanus	African white- backed Vulture	•	F	С	all seasons	soaring birds can be seen at the cliffs of the Shabelle valley, in other parts only seen at carrion
Aegypius (Torgos) tracheliotus	Lappet-faced Vulture	•	F	F	all seasons	repeatedly seen at carrion in more hilly areas, perhaps less common in lower areas to the East. VULNERABLE
Aegypius (Trogoniceps) occipitalis	White-headed Vulture	•	F	F	all seasons	only seen at carrion in all parts of the observed area
Circus macrourus	Pallid Harrier	•	С	U	Palaearctic migrant	NEAR THREATENED
Circus pygargus	Montagu's Harrier	•	F	U	only rainy season	to be seen on vegetated plains
Micronisus (Melierax) gabar	Gabar Goshawk	•	F	С	all seasons	
Melierax metabates	Dark Chanting Goshawk	0	F	U	all seasons	very few observations but confirmed occurrence
Melierax canorus	Eastern Chanting Goshawk	•	С	С	all seasons	the most frequent goshawk in the area
Accipiter tachiro	African Goshawk	•	F	F	all seasons	mostly along wooded river beds but occasionally also in denser bush land
Accipiter badius	Shikra	•	F	F	all seasons	
Butastur rufipennis	Grasshopper Buzzard	0	F	U	African migrant	accidentally seen on open plains
Kaupifalco monogrammicus	Lizard Buzzard	•	-	U		three sightings so far but well known from Southern and Central Somalia, hence regular occurrence is very likely
Buteo rufofoscus	Augur Buzzard	0	-	F		mainly seen at cliffs north of the Shabelle valley
Aquila rapax	Tawny Eagle	•	F	С	all seasons	the most frequent smaller eagle
Aquila wahlbergi	Wahlberg's Eagle	0	-	R		be seen at hill sides of the Shabelle valley

		Checklist	Observation Frequency			
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
Hieraaetus pennatus	Booted Eagle	•	U	U	Palaearctic migrant	
Hieraaetus spilogaster (fascialis)	African Hawk Eagle	•	F	F	all seasons	
Polemaetus bellicosus	Martial Eagle	•	U	U	all seasons	occasionally be seen throughout the observation area
Stephanoaetus coronatus	Crowned Eagle	0	U	U	all seasons	near the Shabelle river
Sagittariidae						
Sagittarius serpentarius	Secretary Bird	•	-	U	all seasons	
Falconidae						
Polihierax semitorquatus	African Pygmy Falcon	•	С	С	all seasons	bee seen very frequently throughout the region
Falco tinnunculus	Common Kestrel	•	С	F	Palaearctic migrant	seen near wooded edges of Shabelle river steep ridges and inselbergs
Falco subbuteo	Hobby	•	F	U	Palaearctic migrant	
Falco peregrinus	Peregrine	0	U	R	Palaearctic migrant	seen hunting near cliffs in open bush land, subspecies not clearly identified
Phasianidae						
Francolinus sephaena spilogaster	Crested Francolin	•	С	С	all seasons	
Francolinus leucoscepus infuscatus?	Yellow-necked Spur Fowl	•	С	С	all seasons	visible and even more audible almost everywhere, the most frequent francolin
Coturnix coturnix	Common Quail	•	С	F	all seasons (African migrant)	observation frequency drops in the dry season, less frequent in areas with gravelled soils; ssp. africana unclear
Coturnix delegorguei	Harlequin Quail	•	F	F	all seasons (African migrant)	observation frequency drops in the dry season, less frequent in areas with gravelled soils
Numididae			•	•		•
Acryllium vulturinum	Vulturine Guinea Fowl	•	С	С	all seasons	regularly seen in flocks of up to 50 to 100 individuals
Numida meleagris somaliensis	Helmeted Guinea Fowl	•	С	F	all seasons	in some areas less frequent than vulturine guinea fowl but sometimes both species appear in mixed groups
Gruidae				•		
Grus grus	Common Crane	0	U	R	Palaearctic migrant	seen once at Jigjiiga pond
Rallidae						
Amaurornis flavirostris (Limnocorax flavirostra)	Black Crake	•	С	U	rainy season	be seen at swampy places near the Shabelle river, else only during the rainy season at waterlogged places with densely wooded margins
Fulica cristata	Red-knobbed Coot	•	-	С	all season	at larger permanent ponds, i.e. at Jigjiiga in large numbers

		Checklist	Observation Frequency			
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
Otididae						
Eupodotis hartlaubii	Hartlaub's Bustard	•	-	С	all seasons	very frequently to be seen and heard in all bush land; separation from E. melanogaster by habitat only
Neotis heuglini	Heuglin's Bustard	•	U	U	all seasons	open to moderately dense bush land
Eupodotis rufcrista	Buff-crested Bustard	•	С	F	all seasons	
Eupodotis senegalensis	White-bellied Bustard	•	F	F	all seasons	ssp. E. s. canicollis not confirmed
Eupodotis humilis	Little brown Bustard	- *	F	F	all seasons	obviously prefers areas with soft sandy soils interspersed with gravelled areas, observed throughout the area. NEAR-THREATENED
Ardeotis kori	Kori Bustard	•	U to -	U	all seasons	mainly on larger plains in the southern parts near Shabelle valley
Recurvirostridae						
Himantopus himantopus	Common Stilt	•	С	С	Palaearctic migrant	seen at permanent ponds near Jigjiiga but obviously disperses accidentally to more southerly waterlogged areas
Burhinidae	П		•			
Burhinus senegalensis	Senegal Thicknee	•	С	F	all seasons	seen at night on open plains or near well wooded margins
Burhinus capensis ssp. maculosus?	Spotted Thicknee	•	F	U	Palaearctic migrant	The occurrence of the two thicknee species are confirmed by road victims at night
Glareolidae						
Cursorius rufus (after HAYMAN, 1986) or C. somaliensis (after Howard & Moore, 2003)	Burchell's Courser or Somali Courser	-	?	F	all seasons	Two cream coloured cursor species were differentiated during a survey with NABU in May 1999; C. cursor seems the more frequent courser occurring throughout the region. Species status among these similar looking coursers still in
Cursorius cursor ssp. littoralis?	Cream-coloured Courser	•	-	R	African migrant	discussion, hence these observations are still questionable
Cursorius temminckii	Temminck's Courser	•	-	U	all seasons	
Cursorius africanus ssp. hartingi	Two-banded Courser	•	F	U	all seasons	
Cursorius cinctus	Three-banded (Heuglin's) Courser	•	F	U	all seasons	
Glareola pratincola	Common Pratincole	•	F	U	Palaearctic migrant	seen occasionally on open plains, higher numbers seen till May on plains in the Shabelle valley

		Checklist	ist Observation Frequency			
Scientific Name Eng	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
Charadriidae	•		•			
Charadrius dubius	Little ringed Plover	•	F	F	Palaearctic migrant	only seen at water pond near Jigjiiga
Vanellus tectus	Black-headed Lapwing	•	F	J		much lees frequent than V. spinosus but still seen occasionally
Vanellus spinosus	Spur-winged Lapwing	•	С	С	all seasons	seen on open plains even far from water places
Vanellus coronatus	Crowned Lapwing	•	С	С	all seasons	the most frequent lapwing throughout the region
Scolopacidae						
Calidris minuta	Little Stint	•	С	F	Palaearctic migrant	only seen at pond near Jigjiiga
Calidris temminckii	Temminck's Stint	•	С	F	Palaearctic migrant	only seen at pond near Jigjiiga
Calidris ferruginea	Curlew Sandpiper	•	С	F	Palaearctic migrant	seen at Jigjiiga and Shabelle river
Numenius arquata	Eurasian Curlew	•	F	U	Palaearctic migrant	rarely seen in Shabelle valley but observations underrepresented
Tringa totanus	Redshank	•	U	U		only seen at Jigjiiga dam
Tringa erythropus	Spotted Redshank	•	F	U	Palaearctic migrant	rarely seen in Shabelle valley but observations underrepresented
Actitis (Tringa) hypoleucos	Common Sandpiper	•	С	F	Palaearctic migrant	regularly seen at pond near Jigjiiga
Pteroclidae						
Pterocles exustus	Chestnut-bellied Sandgrouse	•	С	С		regularly in huge flocks around Shilabo
Pterocles decoratus	Black-faced Sandgrouse	•	F	F		at water places like Shilabo often associated with Pt. exustus
Pterocles lichtensteinii	Lichtenstein's Sandgrouse	•	F	U		occasionally around livestock watering places with muddy soil
Columbidae	<u> </u>	1	•		•	
Columba guinea	Speckled pigeon	•	С	С	all seasons	everywhere near settlements, in the bush comparatively rare
Treron waalia	Bruce's Green Dove	•	F	U		seen North of Warder but rarely in Qorahey zone
Oena capensis	Namaqua Dove	•	С	С	all seasons	
Turtur chalcospilos	Emerald-spotted Wood Dove	•	С	С	all seasons	
Streptopelia semitorquata	Red-eyed Dove	•	С	F		mainly northwest of Qorahey zone
Streptopelia decipiens	African Mourning Dove	•	-	С		often in very large flocks near water cisterns

		Checklist	Observation	Frequency		
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
Streptopelia roseogrisea	African Collared Dove	0	-	U	November to March	seasonally seen near settlements
Streptopelia capicola ssp. capicola?	Ring-necked Dove	•	С	С		very frequent in yards and close to settlements
Streptopelia turtur	Western Turtle Dove	•	-	F	DEYR season	seen in settlements and towns
Streptopelia senegalensis	Laughing Dove	•	С	С		mainly near settlements but also quite common in the bush
Psittacidae						
Poicephalus rufiventris ssp. pallidus?	African orange- bellied Parrot	•	F	С		Frequently flocking in bush with prominent trees (often Delonix spec.)
Musophagidae						
Crinifer zonurus	Eastern Gray Plantain-eater	0	-	U		seen only along the Shabelle river between Godey and Kelafo
Corythaixoides leucogaster	White-bellied Go- away-bird	•	С	С		everywhere in the region with moderate to dense bush
Cuculidae	1	•	•			
Oxylophus (Clamator) jacobinus	Pied Cuckoo	•	F	F	African migrant	
Oxylophus (Clamator) levaillantii	Levaillant's Cuckoo	•	-	R	African migrant	Shabelle river valley with riverine forests
Clamator glandarius	Great Spotted Cuckoo	•	-	R	African migrant	sometimes along the Fafen river
Centropus superciliosus	White-browed Coucal	•	F	U		mainly in or close to thickets around seasonal water ponds
Cuculus canorus	Eurasian Cuckoo	•	F	U	Palaearctic migrant	in remnants of riverine forests along Fafen and Shabelle river
Cuculus gularis (C. canorus gularis)	African Cuckoo	•	U	F	African migrant	visibility poor but calls quite often to hear
Chrysococcyx klaas	Klaas' Cuckoo	•	F	U		mainly Shabelle river valley
Chrysococcyx caprius	Dideric Cuckoo	•	U	U	African migrant	in remnants of riverine forests along Fafen and Shabelle river but seen also rarely in the dry bush
Strigidae	•	•	•			
Otus scops or O. senegalensis?	Common Scops- Owl or African Scops-Owl	•	С	F		status of the two species unclear due to little voice records
Otus leucotis	White-faced Scops-	•	F	R		only a few observations in dense bush areas
	·					

		Checklist	Observation Frequency			
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
	Owl	•				
Glaucidium perlatum	Pearl-spotted Owlet	•	С	С		builds nests in termite mounts and can be seen during the day perching on top
Athene noctua ssp. somaliensis	Little Owl	•	F	F		
Bubo lacteus	Verreaux's Eagle- Owl	•	F	U		Seen only twice in bush with densely branched tall trees (i.e. Terminalia spec.)
Bubo africanus	Spotted Eagle-Owl	•	F	U		observation frequency perhaps underestimated
Caprimulgidae						
Night jars are underrepresent	ted in the records con	cerning specie	es identificatio	n		
Caprimulgus species	Nightjars			F		species not clearly identified so far, but night jars are very common in the bush
Apodidae						
Swifts are underrepresented	in the records concerr	ning species id	dentification			
Apus affinis	Little Swift	•	F	F		Around rocky hills and outcrops particularly at the edge of the Shabelle river valley. The diversity of swift species is not properly recorded so far
Coliidae	•		•	•	•	
Urocolius (Colius) macrourus ssp. pulcher?	Blue-napped Mousebird	•	С	С		in bush land as well as near settlements
Colius striatus ssp. hilgerti?	Speckled Mousebird	•	С	F		more frequent near settlements than U. macrourus
Alcedinidae and Meropidae			•	•	•	
Halcyon chelicuti	Striped Kingfisher	•	F	R		
Halcyon leucocephala	Gray-headed Kingfisher	•	F	С	African migrant	every day in the bush visible
Halcyon senegalensis	Woodland Kingfisher	•	-	R		along Fafen and Shabelle river
Ceyx picta	African Pygmy Kingfisher	•	F	F		at temporary rivers during rainy season often to see
Corythornis (Alcedo) cristata	Malachite Kingfisher	•	F	С		at water ponds with overhanging branches regularly to see
Ceryle rudis	Pied Kingfisher	•	С	F	in rainy seasons	at large and longer lasting water ponds
Merops pusillus ssp. cyanostictus?	Little Bee-eater	•	С	С		the most frequent bee eater in the area
Merops nubicus	Carmine Bee-eater	•	F	C-F	season dependency	at the Shabelle river valley quite common, appears in the

		Checklist	Observation Frequency			
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
						central Ogaden mostly at rainy season
Merops revoilii	Somali Bee-eater	•	F	U		
Merops albicollis	White-throated Bee-eater	•	F	F		mainly flocking at water pools after the rain, else rarely seen
Merops orientalis	Little green Bee- eater	0	-	R	African migrant	only two or three times observed
Coraciidae						
Coracias naevia	Rufous-crowned Roller	•	F	F		The roller species which is seen most in open bush land
Coracias garrulus	Eurasian Roller	•	С	F	Palaearctic migrant / DER season	repeatedly seen in loosely assembled groups passing the area
Coracias caudata	Lilac-breasted Roller	•	С	U	African migrant	
Coracias abyssinica	Abyssinian Roller	•	F	U	African migrant	
Phoeniculidae and Upupida	ie					
Phoeniculus somaliensis (Ph. purpureus somaliensis) ssp. abyssinicus?	Black-billed Woodhoopoe	-	F	F		Individuals best to be spotted by patient point observation
Phoeniculus minor ssp. minor?	Abyssinian Scimitar-bill	•	F	F		
Phoeniculus (Rhinopomastus) aterrimus	Black Woodhoopoe	0	-	R		differentiated from Ph. cyanomelas by more straight bill
Phoeniculus (Rhinopomastus) cyanomelas	Scimitar-bill	-	-	R		At the Shabelle valley between Godey and Kelafo, one observation also at Fafen river; strongly curved bill used for identification. In AVIBASE mentioned for Somalia, hence very likely to occur in the Ogaden
Upupa epos senegalensis	Ноорое	•	С	С	all seasons	everywhere in the bush throughout the year
Bucerotidae						
Tockus nasatus	African Gray Hornbill	•	С	U		
Tockus flavirostris	Eastern Yellow- billed Hornbill	•	F	F		
Tockus deckeni	Von der Decken's hornbill	•	С	F		less frequent than Jackson's hornbill
Tockus erythorhynchus	Red-billed hornbill	•	С	С		One of the true character species of the Ogaden bush land
Tockus hemprichii	Hemprich's hornbill	•	U	R		in bushed areas on rocky slopes and hillsides

		Checklist	Observation	Frequency		
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
Bucorvus abyssinicus	Abyssinian Ground-Hornbill	•	F	U	seasonal aggregation	best seen on open plains hunting grasshoppers after the rains
Capitonidae						
Pogoniulus pusillus ssp. uropygialis	Red-fronted Tinkerbird	•	F	U		only seen during extensive point observation
Trachyphonus margaritatus ssp. somalicus	Yellow-breasted Barbet	•	С	F		more in open, sparsely bushed areas, often perches on termite mounts
Trachyphonus darnaudii ssp. böhmi	D'Arnaud's Barbet	•	F	F		at least in Qorahey zone less frequent than known from similar areas in Somalia
Trachyphonus erythrocephalus	Red-and-yellow Barbet	•	F	F		of all Trachyphonus species the most frequently seen species
Tricholaema diademata (Lybius leucomelas)	Red-fronted Barbet	•	F	U		
Tricholaema melanocephala (Lybius melanocephalus)	Black-throated Barbet	•	F	U		best seen around shallow depressions where dense thickets can form
Indicatoridae						
Indicator indicator	Greater Honeyguide	•	F	F		Dense to medium dense bush with taller trees
Indicator minor	Lesser Honeyguide	•	F	F		see I. indicator
Picidae						
Campethera nubica ssp. pallida?	Nubian Woodpecker	•	F	С		can be seen at any day in the field
Dendropicos fuscescens	Cardinal Woodpecker	•	С	С		can be seen at any day in the field
Dendropicos (Mesopicus) goertae ssp. spodocephalus	Gray Woodpecker	•	F	С		less frequent than other two woodpecker species; taxonomic allocation unclear
Alaudidae						
Larks are underrepresented is	n the field records					
Galerida cristata ssp. somaliensis?	Crested Lark	•	С	F		mostly seen on open plains like Banka Qorahey south of Kebri Dehar
Galerida malabarica ssp. huriensis	Thekla Lark	•	F	F		Crested and Thekla Lark often confused due to short observation time, hence frequency not precise. However, both species occur in the region
Eremopterix signata	Chestnut-headed Sparrow-Lark	•	F	F	somewhat seasonal	although all Eremopterix species appear to be present throughout the year they are more frequently seen in flocks
Eremopterix nigreceps ssp.	Black-crowned					on open plains during the dry seasons

		Checklist	Observation Frequency			
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
melanauchen?	Lark					
Eremopterix leucotis	Chestnut-backed Sparrow-Lark	0	-			
Hirundinidae						
Hirundo aethiopica	Ethiopian Swallow	•	С	F		mainly be seen around larger settlements and small towns
Hirundo rustica	Barn Swallow	0	С	С	Palaearctic migrant	in DER season often at water ponds and shallow water stagnations
Hirundo abyssinica	Lesser Striped- Swallow	0	С	F		along the Fafen river regularly seen particularly if some water filled pools are left
Riparia riparia	Common Sand- Martin	•	F	U		only seen in the Shabelle river valley
Delichon urbica	Western House- Martin	0	С	С		see H. rustica
Motacillidae		•	•			•
Tmetothylacus tenellus	Golden Pipit	•	F	F		easy to see in areas with scattered bush but may occur almost everywhere
Motacilla aguimp	African Pied Wagtail	0	-	U		in the area of a large water catchments leading to Shabelle river observable, elsewhere rare
Motacilla alba	Pied Wagtail	0	F	С	Palaearctic migrant	at watering places with some sandy areas, often close to livestock
Motacilla flava	Yellow Wagtail	•	С	С	Palaearctic migrant	along small seasonal rivers in DER season
Pycnonotidae						
Pycnonotus barbatus	Common Bulbul	•	С	С		everywhere in the bush and within settlements
Turdidae		•	•	T.	1	
Turdus olivaceus	Olive Thrush	0	-	R		seen in settlements and small townships with some decoration trees
Muscicapidae						
Oenanthe isabellina	Isabelline Wheatear	•	С	С		on open plains a very conspicuous small bird
Oenanthe oenanthe	Northern Wheatear	0	С	С	Palaearctic migrant	on open plains and rocky, sparsely bushed areas during the DER season
Oenanthe pleschanka	Pied Wheatear	0	F	С	Palaearctic migrant	easily seen during DER season on open plains and sparsely bushed areas
Oenanthe phillipsi	Somali Wheatear	•	F	F		more attached to rocky ridges and outcrops than other wheatears
Saxicola torquata	Common	0	С	R	Palaearctic migrant	so far a single observation between Kebri Dehar and

		Checklist	,			
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
	Stonechat	•				Jigjiiga
Cichladusa guttata	Spotted Morning- Thrush	0	С	F		along the Fafen river in Qorahey Zone and northwards
Cercotrichas leucophrys	White-browed Scrub-Robin	•	С	С		in all kind of bush, often also within villages
Muscicapa striata	Spotted Flycatcher	0	F	С	Palaearctic migrant	quite often seen during DER-Season in well bushed areas
Ficedula hypoleuca	Pied Flycatcher	0	U	R		in DER season rarely seen at the wooded parts of Fafen river
Bradornis pallidus	Pallid Flycatcher	0	-			B. pallidus not mentioned by v. Perlo for the Ogaden, but
Bradornis microrhynchus	Gray Flycatcher	•	С	F		both species occur and could be differentiated by point observation from tree tops
Platysteiridae						
Batis orientalis	Gray-headed Batis	•	С	С		sitting quietly in branched trees gave good possibility to
Batis perkeo	Pygmy Batis	•	F	F		differentiate the two similar looking Batis species
Monarchidae						
Terpsiphone viridis	African Paradise- Monarch	•	-	U	African migrant	true seasonality not clear but occurs in Qorahey zone; the totally white form is dominant
Sylviidae						
Hippolais pallida	Olivaceous Warbler	0	-	R	Palaearctic migrant	
Sylvietta whytii	Red-faced Sylvietta	0	-	U		
Sylvietta philippae	Somali Short-billed Sylvietta (Crombec)	-	-	R		in an undisturbed observation session features to differentiate from S. isabellina were clearly seen DATA DEFICIENT ACC. TO AVIBASE
Sylvietta isabellina	Somali Long-billed Sylvietta (Crombec)	•	F	С		often seen when observing from tree tops
Eremomela icteropygialis ssp. griseoflava?	Yellow-bellied Eremomela	•	F	U		E. flavicrissalis may also occur but could not be differentiated so far
Cisticolidae						
Cisticola species		Cisticola species have been seen in the region but needs more expertise for proper identification. In Qorahey Zone Cisticolas are perhaps rare or absent due to lack of habitat requirements.				
Prinia somalica	Pale Prinia	0	F	С		seen almost everyday in the bush
Spiloptila (Urohipis) rufifrons ssp. smithii	Red-fronted (faced) Warbler	•	F	F		regularly seen during patient point observation
Apalis flavida	Yellow-breasted Apalis	•	С	U		occasionally seen during point observation from tree tops

		Checklist	Observation Frequency				
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks	
Timaliidae							
Turdoides rubiginosus ssp. sharpii	Rufous Chatterer	•	F	F		in bushed areas almost everywhere	
Turdoides leucopygius sp. smithii	White-rumped Babbler	•	С	С		while continuously singing and calling easy to find and observe	
Paridae and Remizidae		•					
Parus thruppi (Parus afer thruppi)	Northern Grey Tit	•	F	F		throughout the area observable	
Anthoscopus (Remiz) musculus	Mouse-coloured Penduline Tit	•	U	U		throughout the area but preferable on well-bushed rocky ridges	
Zosteropidae		•					
Zosterops abyssinica ssp. jubaensis?	Abyssinian White- eye	•	С	С		even in dry bush land particularly on flowering acacias	
Nectariniidae	1 7	•			•		
Nectarinia venusta ssp. albiventris	Variable Sunbird	•	С	С		almost everywhere; the most common sunbird	
Anthreptes collaris	Collared Sunbird	0	-	R		Only a few observations of both species but differentiated	
Anthreptes metallicus	Northern Pygmy Sunbird	•	-	R		by accompanying female	
Anthreptes orientalis	Eastern Violet- backed Sunbird	•	F	U			
Nectarinia mariquensis	Maricco Sunbird	•	С	R		Clearly not as common in the area as mentioned by v. Perlo	
Nectarinia senegalensis	Scarlet-chested Sunbird	0	-	U		Besides N. venusta the most common two sunbirds; foraging close to observation points in flowering trees	
Nectarinia hunteri	Hunter's Sunbird	•	F	С		made differentiation reliable	
Oriolidae						•	
Oriolus larvatus	African Black- headed Oriole	0	С	F		along the Shabelle quite frequent but also seen at the Fafen river in Qorahey zone	
Oriolus oriolus	Eurasian Golden Oriole	•	F	R	Palaearctic migrant	During DER season in tall trees along seasonal rivers	
Malaconotidae							
Rhodophoneus cruentus ssp. hilgerti?	Rosy-patched Bushshrike	•	F	U		not seen very often but everywhere in the region	
Nilaus afer	Brubru	•	С	С		often very conspicuous by its call	
Dryoscopus pringlii	Pringle's Puffback	•	U	R		few observations, decision to differentiate from potential D.	

		Checklist	Observation Frequency				
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks	
						gabensis due to habitat	
Tchagra senegala	Black-crowned Tchagra	•	С	F		often very conspicuous by its call	
Malaconotus blanchoti ssp. approximans?	Grey-headed Bushshrike	•	F	F		only seen along the Shabelle river	
Laniarius ruficeps	Red-napped Bushshrike	•	U	U		accidental observations in bush land of Qorahey zone	
Laniarius aethiopicus	Tropical Boubou	•	С	С		Both boubous are seen in Qorahey zone along well-	
Laniarius funebris	Slate-coloured Boubou	•	С	R		wooded seasonal rivers	
Laniidae and Prionopidae							
Lanius collurio	Red-backed Shrike	•	С	С	Palaearctic migrant	in DER-season well distributed in the region	
Lanius isabellinus (L. coll. isabellinus)	Red-tailed Shrike	•	U	R	Palaearctic migrant	two records so far from Qorahey zone	
Lanius nubicus	Nubian Shrike	0	F	R	Palaearctic migrant	all migratory Lanius species only seen in DER season from	
Lanius senator	Woodchat Shrike	0	F	R	Palaearctic migrant	Nov. to March and except of collurio only accidental	
Lanius excubitoroides	Great Grey Shrike	0	F	R	Palaearctic migrant	records	
Lanius somalicus	Somali Fiscal	•	F	С		sightings of this two species not always differentiated to	
Lanius dorsalis	Taita Fiscal	0	С)		species level, hence frequency combined	
Lanius minor	Lesser Grey- backed Shrike	0	-	U			
Lanius collaris	Common Fiscal	0	F	F			
Prionops plumata ssp. vinaceigularis	White (crested) Helmetshrike	•	F	С		in well-wooded depressions and thickets quite regularly seen always in small flocks	
Eurocephalus rueppelli	White-rumped Helmetshrike (White-crowned Shrike)	•	С	С		almost everywhere in the bush often in small flocks	
Corvidae					_		
Corvus ruficollis ssp. edithae	Brown-necked Raven	•	F	F		particularly around towns like Shilabo or Godey	
Corvus albus	Pied Crow	•	С	С		mostly seen around towns but rarely seen in the bush far from settlements	
Corvus rhipidurus	Fan-tailed Raven	•	С	С		large assembling often near small settlements	
Corvus capensis	African Rook	0	С	?		record questionable, but a slender billed raven seen at cliffs near the Shabelle river valley, that means below	

		Checklist	Observation Frequency			
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
						1.800 m
Dicruridae					T-	
Dicrurus adsimilis	African drongo	•	С	С		very conspicuous in flight and while perching, seen every day
Dicrurus ludwigii	Square-tailed drongo	-	-	?		still not clear but some sightings point to this species
Sturnidae	, .				J	
Onychgnathus salvadori	Bristle-crowned Starling	•	F	U		only a few records but also from plain bush areas in a distance to cliffs and ravines
Onychgnathus blythii	Somali Chestnut- winged Starling	•	-	R		Rarely seen and species not fully clear but the most likely red-winged starling in this area
Lamprotornis chalybeus	Greater Blue-eared Starling	•	С	С		almost everywhere and quite numerous in town entering gardens and compounds
Lamprotornis purpuropterus	Rueppell's Long- tailed Starling	0	-	F		in the bush a quite common long-tailed glossy starling
Buphagus erythrorhynchus	Red-billed Oxpecker	•	С	С		with larger camel herds always some individuals can be found
Spreo shelleyi	Shelley's Starling	•	С	С		not as close to human settlements as S. superbus
Spreo superbus	Superb Starling	•	С	С		always to be seen around settlements
Spreo albicapillus	White-crowned Starling	•	С	С		the most numerous starling in the bush and near settlements, often occurring in flocks up to hundred individuals
Speculipastor bicolor	Magpie Starling	•	F	U		repeated sightings but not as numerous as other starlings
Cinnyricinclus leucogaster	Violet-backed Starling	•	F	U	African migrant	less frequent in the dry bush than in other parts of its range
Cosmopsarus regius	Golden-breasted Starling	•	F	С		moderate seasonality in occurring in larger flocks during the rains, else more individually moving
Creatophora cinerea	Wattled Starling	•	С	С	African migrant	present throughout the year but seasonally in large groups throughout the area
Passeridae						
Passer griseus	Grey-headed Sparrow	0	-	С		quite common in the bush and around settlements
Passer motitensis (iagoensis)	Rufous Sparrow	•	F	U		in towns and settlements sometimes in mixed flocks with P. castanopterus
Passer castanopterus	Somali Sparrow	•	U	С		almost everywhere in the bush
Plocepasser donaldsoni	Donaldson-Smith's	0	U	U		near Shabelle valley and northwards along the catchment

		Checklist	Observation Frequency			
Scientific Name	English name	Birds of Ethiopia	B. v. Perlo	Ogaden	Seasonality	Remarks
	Sparrow-Weaver	-				area more frequent, in Qorahey Zone rare
Ploceidae						
Plocepasser mahali	White-browed Sparrow-Weaver	0	-	U		in Qorahey zone and adjacent areas accidentally be seen
Bubalornis niger	Red-billed Buffalo- Weaver	•	F	F		along rivers with some agriculture more frequent than in the bush
Dinemellia dinemellia	White-headed Buffalo-Weaver	0	-	С		the most numerous heavy built weaver, can be considered as a representative species of the area
Ploceus cucullatus	Black-headed Weaver	0	-	С		in the rainy seasons small colonies can be found at water ponds
Ploceus spekei	Speke's Weaver	•	F	F		as with P. cucullatus; occurs below 1.200 m
Ploceus galbula	Chestnut Weaver	•	F	U		found more close to a few agricultural areas along the Fafen river and near Danaan
Ploceus baglafecht ssp. emini	Baglafecht Weaver	•	С	U		rarely seen in the bush but often near or inside towns with permanent water like Jigjiiga
Euplectes axillaris	Fan-tailed Widowbird	0	-	R		seen only on one trip along the Shabelle river towards Kelafo
Euplectes franciscanus ssp. pusillus	Northern Red Bishop	•	С	С		seen in the bush only during the rains but in towns like Jigjiiga always
Quelea quelea	Red-billed Quelea	•	С	С		In the dry bush quite rare and just in small flocks. At Danaan regularly occurring in large numbers but not comparable to the huge amounts in other crop growing areas of East Africa
Viduidae						
Vidua macroura	Pin-tailed Whydah	•	С	F		
Vidua hypocherina	Steel-blue Whydah	•	F	U		only accidental records
Vidua fisheri	Straw-tailed Whydah	•	F	U		only accidental records
Vidua paradisaea	Acacia Paradise- Whydah	0	-	R		
Estrildidae			•		•	
Pytilia melba	Green-winged Pytilia	•	F	С		with some patience can be found almost every day in the bush
Pytilia afra	Orange winged Pytilia	•	С	С		see P. melba
Laganosticta senegala	Red-billed Firefinch	•	С	С		moves often in small groups through the bush, regularly

		Checklist	Observation Frequency			
Scientific Name	English name	Birds of Ethiopia	I B v Perlo I ()daden I		Seasonality	Remarks
						seen within towns
Uraeginthus bengalus	Red-cheeked Cordonbleu	•	С	U		only recorded along wooded river sides and in larger towns
Estrilda charmosyna (E. erythronotus charmosyna)	Black-cheeked Waxbill	•	U	U		mostly along river beds and in towns, few records from the bush
Estrilda rhodopyga	Crimson-rumped Waxbill	•	С	F		like the other waxbills and small finches often to be seen in fencing hedges along farms
Uraeginthus ianthinogaster	Purple Grenadier	•				like the other waxbills and small finches often to be seen in fencing hedges along farms or within villages
Lonchura cantans (malabarica)	African Silverbill	•	F	С		often in great numbers seen in town gardens or wherever taller grass is growing along seasonal rivers
Amadina fasciata	Cut-throat	•	F	F		
Emberizidae and Fringillida	ае					
Emberiza poliopleura	Somali Golden- breasted Bunting	•	-	С		very common in the bush throughout the area
Serinus citrinelloides	African Citril	0	-	R		perhaps more frequent than recorded but unlike males, females can be mistaken with S. canicollis
Serinus canicollis	Yellow-crowned Canary	•	F	U		are in the bush but sighting are possible in larger towns or along wooded seasonal rivers
Serinus dorsostriatus	White-bellied Serin	•	С	F		more in dry bush land than above mentioned Serinus species
Serinus donaldsoni	Grosbeak Serin	•	F	R		like S. dorsostriatus
Serinus striolatus	Streaky Serin	0	F	R		may expand further to East than shown in v. Perlo or Checklist

Discussion of bird records

As mentioned previously, the prime field work focused on larger mammals than on birds. Hence, some groups are definitely underrepresented. There is no doubt that many others remained unobserved or have just been overlooked.

Bird groups with a higher likelihood to occur with significantly more species according to v. Perlo and the Avibase checklists for Ethiopia and Somalia are as follows:

Strigidae (Owls)	potentially 9	identified 6
Caprimulgidae (Nightjars)	potentially 8	identified 0
Apodidae (Swifts)	potentially 7	identified 1
Alaudidae (Larks)	potentially 16	identified 5
Anthus sp. (Pipits)	potentially 7	identified 1
Turdinae (Chats, Wheatears)	potentially 17	identified 7
Sylviinae (Cisticolas)	potentially 10	identified 1
Nectaridae (Sunbirds)	potentially 12	identified 7
Ploceidae (Weavers, Sparrows)	potentially 24	identified 15

Only a few species in table 1 are not mentioned either in the Ethiopian checklist of URBAN & BROWN or in BART V. PERLO. This reflects again the lack of knowledge and the scattered information available for this region rather than showing a new spectacular observation.

The records confirmed 60 species of the Somali-Massai biome out of 100 mentioned for Ethiopia, indicating a well composed and almost intact bird community. Since the overall conditions appear still favourable regarding habitat requirements of most of the missing species, it seems very likely that they also occur.

As with the flora, the species diversity of the Ogaden shows a high congruence with Somali bird communities, except, of course, sea birds and shore dwelling species.

Bird communities differ in diversity and species frequency according to habitat structure and niche offer and some food specialists might be restricted to certain trees, shrubs or herbs occurring only in a restricted range. Hence, the Ogaden bird community is most probably not evenly distributed throughout the area.

So far, the surveyed area can be divided in three zones regarding major habitat requirements for birds (the altitude differs not very much and hence seems no criterion for differentiation).

- 1) The red sand area East of Kebri Dehar up to the Somali border. Here Acacia trees dominate the incense trees, the canopy is often closed, dense and multi-branched. The cover of herbs and grasses is rich during the rains. This zone also bears the typical tall termite mounds frequently used by birds depending on nest holes. This comprises the major part of the landscape
- 2) The hilly limestone–rock area with gravelled soils. Here *Commiphora*, *Boswellia* and *Euphorbia* species are more dominant; the soil is often bare with scattered dwarf shrubs. This area stretches North and West of Kebri Dehar, and southwards to the Shabelle valley.
- 3) The banks of water courses, like the Shabelle, the Fafen and other larger seasonal rivers. This zone differs in bearing more dense vegetation with fig trees, *Ziziphus*, *Balanites* and *Tamarix* species. The vegetation period is due to a better water supply prolonged and in the shade of trees muddy places can persist quite long.

The zones can be partly identified on the satellite imageries of Figure 2 and 3.

The three zones may represent the general distribution range for the recorded birds inasmuch as they depend on or prefer the described structures As an example, the

Little Brown Bustard, recorded in zone 1 and 2 can thus be expected almost throughout the whole region.

The vast area of the Ogaden hosts also numerous palaearctic migratory species, some of them in large numbers like the European White Stork. The Ogaden is thus also a conservation issue for endangered species of the Northern Hemisphere.

Other wildlife

Very little records about other wildlife was available for the last two or three decades from this area.

Now, due to the extensive surveillance work the knowledge on prevailing wildlife can be updated or confirmed.

However, complete lists as well as population estimates are not subject of this article. Thus, a brief compilation of species emphasizing some remarkable findings shall give an impression of the areas wildlife diversity.

Table 2: Wildlife records of the Ogaden region and the Qorahey Zone in particular						
Scientific name	English name	Remarks				
Ungulates						
Orycteropus afer	Aardvark	detected only by footprints and burrows but quite numerous				
Phacochoerus aeth. delamerei	Desert warthog	plenty but zoologists were unaware of this population				
Tragelaphus imberbis	Lesser Kudu	viable numbers				
Tragelaphus strepsiceros	Greater Kudu	still present in low numbers				
Madoqua saltiana phillipsi	Salt's or Phillip's Dikdik	plenty				
Madoqua guentheri	Guenther's Dikdik	plenty				
Madoqua piacentinii	Silver Dikdik	viable numbers, not recorded previously for the Ogaden and Ethiopia respectively.				
Gazella soemmerringi	Soemmering's Gazelle	seriously depleted, only fragments of previous numbers left				
Ammodorcas clarkei	Dibatag	restricted in range and definitely vulnerable				
Litocranius walleri	Gerenuk	viable numbers				
Oryx beisa	Beisa Oryx	seriously depleted, only fragments of previous numbers left				
Primates						
Papio hamadryas	Sacred Baboon	in mountainous areas adjacent to Qorahey Zone				
Papio anubis	Olive Baboon	mainly Shabelle river area				
Cercopithecus pygerythrus	Vervet Monkey	tall trees along river beds				
Galago gallarum	Somali Galago	nocturnal, but repeatedly seen				
Insectivores						
Elephantulus sp.	Lesser Elephant Shrew					
Hares and Rodents						
Lepus capensis	Cape hare					
Xerus rutilus	Ground Squirrel	plenty				
Pectinator spekei	Pectinator	common at hill sides and rocky outcrops				
Hystrix cristata	Crested Porcupine	numerous				
Heterocephalus glaber	Naked Mole-rat	plenty				

Carnivores		
Canis aureus	Common Jackal	numerous
Canis mesomelas	Black-backed Jackal	numerous
Otocyon megalotis	Bat-eared Fox	viable numbers
Mellivora capensis	Ratel	viable numbers
Herpestidae	Mongooses	five species present
Hyena hyena	Striped Hyaena	viable numbers
Crocuta crocuta	Spotted Hyaena	numerous but seriously hunted as vermin
Proteles cristata	Aardwolf	nocturnal, a few life observations and some road kills
Genetta genetta	Common Genet	
Civettictis civetta	African Civet	
Felis caracal	Caracal	viable numbers
Panthera leo	Lion	viable numbers, pursued as vermin
Panthera pardus	Leopard	no direct records but people assure the occurrence in mountainous areas around Degeh Bur and to the West.
Acinonyx jubatus	Cheetah	quite common but seriously pursued as vermin; young are frequently collected for profitable sale which rarely works

The Desert Warthog and the Silver Dikdik can be highlighted as very interesting findings among the larger mammals.

The population status of the warthog species was thought to be critical since it was known only from small isolated pockets in Northern Somalia and Northern Kenya.

The distribution range of the Silver Dikdik was thought to be restricted to coastal areas of Somalia. The records from Ogaden indicate that they may occur also throughout Central Somalia.

Other vertebrates like reptiles and amphibians are also abundant in numbers and species diversity. It is very likely that among these groups are still species new to science.

However, it has to be stated that all those carnivores considered as vermin to livestock as well as all larger game animals are under severe hunting pressure. Particularly antelopes of open plains are often arbitrary targets of military forces. Warthogs, not a game because of religious taboo, are killed and used as poisoned bits for hyenas.

Comments on Important bird areas

Previously identified IBA

The first edition of the Important Bird Areas of Ethiopia mentions three areas which match category one, two or three (or all of them) of the Global Categories and Criteria to identify IBAs.

These areas are in brief:

Name		IBA-Nr.	Co-ordinates	Categories	Status		
Bogol M	anyo-Dolo	021	N 04°31'	1 and 2	Area	not	delimited,
			E 41°32'		unprote	ected	
Lower	Shabelle	048	N 05°06'-05°36'	1, 2, and 3	Area	not	delimited,
River			E 44°08'-45°10'		unprote	ected	
Warder		(048)	(N 06°58'	1, 2, and 3	Area	not	delimited,
			E 45°20')		unprote	ected	

Bogol Manyo-Doolo is given as a spot co-coordinate of Bogol Manyo town but is described as the area from 30 km Northwest of Bogol Manyo to Doolo town, about 100 km to the Southwest just at the Somali border.

Bird species of particular concern are:

Category 1 Globally threatened species

Degodi Lark Mirafra degodiensis Category 1,2
White-winged Dove Streptopelia reichenowi Category 1,2
Somali Short-billed Crombec Sylvietta phillipae Category 1
Jubaland Weaver Ploceus dichrocephalus Category 2

28 Somali-Massai biome species are recorded so far.

Lower Shabelle River is given with co-ordinates outlining roughly the Shabelle river as the Northern margin from Kelafo to Ferfer at the Ethiopian-Somali border and the area of the river's southerly tributaries. The co-ordinates thus comprise an area of about 6.200 km².

Warder is, according to the IBA numbering, combined with the Lower Shabelle River, but no co-ordinates are given. The co-ordinates in the table above are taken from the map and put in parentheses. Warder lies about 200 km Northeast of Kelafo.

It is not clear whether the whole area between the Lower Shabelle River and Warder is considered as an extended IBA or whether a so far unlimited area around Warder shall be taken as IBA. Only the mentioned records of Little Brown Bustard and the high percentage of Somali-Massai biome species are a clue to accept the whole area as an IBA, totalling to an area size of about 21.000 km².

Bird species of particular concern are:

Little Brown Bustard	Eupodotis humilis	Category 1
White-winged Dove	Streptopelia reichenowi	Category 1,2
Somali Short-billed Crombec	Sylvietta phillipae	Category 1
White-winged Dove	Streptopelia reichenowi	Category 2
47 Somali-Massai species		Category 3

Bulo Burti Boubou Laniarius liberatus potential occurrence

Contributions and Suggestions for IBA update

Bogol-Manyo – Doolo area

Except of a short visit the authors haven't worked in this area and are hence not familiar with this part of the Somali region.

However, from this trip and due to comparisons with the vegetation structure in Qorahey Zone and the central Ogaden in general, it appears very likely that more than the recorded 28 bird species of the Somali-Massai biome occur in this area. It might be justified to apply also Category 3 "Biome restricted assemblage" to this area.

Regarding other wildlife the occurrence of Giraffe was mentioned repeatedly by the local society. Gerenuk and Lesser Kudu appeared to be still quite numerous while other ungulates including Dikdiks are much less than in the central Ogaden.

Shabelle River Valley

In the most Eastern part of Ethiopia the Shabelle River represents the only permanent watercourse crossing in its far South a vast terrain of semi-arid to arid Acacia-Commiphora bush land with a North-South extension of almost 570 km.

The river banks still carry fragments of riverine gallery forests adding to the habitat diversity of an else dry landscape. During the rains the Shabelle forms large flood plains along its course from Godey to Kelafo and further to Mustahil near the Somali border.

The river itself, the flooded areas during the DEYR and GU season (sometimes heavy rains in the Ethiopian highlands can cause an out-seasonal flooding) and extended water catchment areas may serve as step stones for all migratory birds depending on water logged areas. At least these arguments predestine the river valley as an important aggregation area for those species. Seasonal records in the central Ogaden region on storks, waders and the like (refer to Table 1) as well as observations near Jigjiiga (see below) in the North demonstrate the significance as a step-stone area.

The Little Brown Bustard is definitely present in the area north of the river valley and was recorded with high constancy in the catchment area from Danaan to Godey.

With the Lappet-faced vulture another threatened species is present in the area.

No direct records are collected for Short-billed Sylvietta, but habitat comparisons from areas of confirmed occurrence yield no strong argument why this species shall not also occur here.

The assumption that the river valley is a potential habitat for the little known Bulo Burti Shrike can be confirmed. In 1999 the authors carried out a survey along the Shabelle river from Imi to Mustahil in order to search for this species and to identify habitat preconditions for its presence. Although the bird itself could not be detected, suitable habitats are definitely present (WILHELMI was involved in 1988 to collect the only known individual near Bulo Burti).

Other aspects of conservational concern are the specific botany of this area. The northern edge of the Shabelle River valley consists of limestone and gypsum hills with a very specific flora. Low lying limestone and gypsum plateaus also stretch to the south of Kelafo.

During the botanical survey in May 2006, i.e. *Boswellia ogadensis*, so far only known from Kelafo, could be recorded almost half the way up to Godey. Other species, including first records for Ethiopia and several new species, mainly from the group of *Euphorbiaceae* add to the botanical importance of this area (THULIN, in preparation).

IBA criteria do not point out or recommend a particular size or delineation for an Important Bird Area.

From a future management point of view it seems however appropriate to provide a somewhat clear demarcation of an Important Bird Area.

Figure 3 shows a suggestion outlined on satellite imagery for the **IBA Lower Shabelle Valley** based on recent findings.

It covers the river valley from Godey to Mustahil, the main northerly water catchment area and the area of gypsum hills and slopes following the valley. There is no strong reason to exclude the river stretch from Kelafo to Godey. Although there was extensive irrigation farming around Godey, these perimeters are now mostly abandoned or fallow and used as seasonal pastures. Large assemblies of storks and waders can be found here.

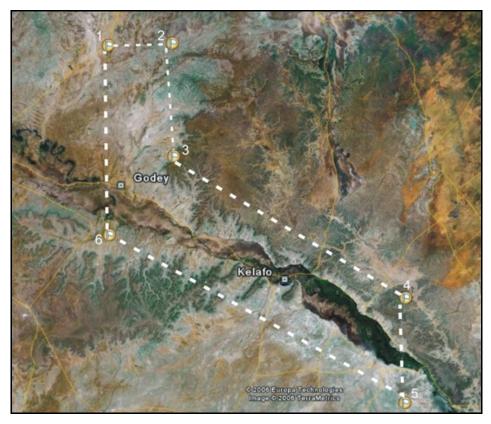


Figure 3: Proposed borders for the IBA "Shabelle Valley". Co-ordinates of numbered flags see text.

There might be also some arguments to include further stretches of the river valley up to Imi town. But the value of this river part can be influenced in near future by the hydroelectric power plant pending for operation. This may have a significant impact on the river habitats at least from Imi to Godey.

IBA Global Criteria for the proposed IBA "Lower Shabelle Valley":

Category 1: Globally threatened species

Little Brown Bustard - Near threatened

Short billed Sylvietta - Data deficient

Lappet-faced vulture - Vulnerable

Category 2: Restricted range species

Not reconfirmed but overall data give no strong reason to reject.

White winged Dove

Bule Burti Boubou

Category 3: Biome-restricted assemblage

At least 50 % of total Ethiopian Somali-Massai biome assemblage

Category 4 iv: Congregations of migratory birds at bottleneck sites

Validation of this criterion shall be set regionally.

Additional biodiversity conservation issues

Specific botanical diversity on limestone and gypsum soils with occurrence of obviously range restricted rare and newly discovered plant species.

Co-ordinates for area corners in Figure 3:

- 1) N 06°30' E 43°30'
- 2) N 06°30' E 43°45'
- 3) N 06°04' E 43°45'
- 4) N 05°30' E 44°40'
- 5) N 05°06' E 44°40'
- 6) N 05°45' E 43°30'

Area corners may be shifted to some extend to follow topographically clear landmarks.

Anticipated threats

It is difficult to estimate the magnitude of potential threats to habitats and bird communities caused by the way of living of local communities and by future infrastructure development. However, the following threats can be stated and somehow ranked in the order of a potential impact dimension.

- Operation of the dam and hydroelectric power plant upstream the Shabelle river.
- Resumption of large scale irrigation farming along the river
- Clearing of gallery forest remnants
- Bush clearing for fuel, construction and fodder

Warder area

The area around Warder is characterised by deep red sand soils interspersed by basaltic outcrops, limestone ridges with gravelled soils and some gypsum plateaus.

At a first glance the vegetation looks very uniform appearing as a vast area of *Acacia-Commiphora* bush land. But soil conditions, topography and the impact of livestock keeping formed on a finer scale a patchy vegetation mosaic of dense to almost impenetrable thickets, open bush land, areas with scattered trees, or plains with just a cover of herbs and grasses.

These conditions apply for almost the whole area from a line drawn through Kebri Dehar down to the Shabelle and up to the Somali border in the North and East.

The Warder area as an IBA was nominated because of the presence of three threatened species and the high proportion of Somali-Massai biome species.

The compiled records now show that the Little Brown Bustard as well as the Short-billed Crombec occur throughout the surveyed area and there is little reason to doubt that they also occur in similar habitats up to the Somali border.

As a consequence, the application of relevant IBA criteria will embrace almost the entire Qorahey and Warder Zone of the Somali Region, an area of about 70.000 km².

Again, such a huge area is extremely difficult to handle if it comes to realisable conservation measures in the future.

The authors thus suggest a defined section which might be considered as an IBA core area, whereas the IBA criteria are still valid for the entire surrounding area.

As a working title **IBA** "Central Qorahey Zone" is proposed.

Within this area all Somali-Massai biome species of Table 1 are recorded, as well as almost all mammals listed in Table 2. The site shows comparatively low livestock pressure resulting in still large sectors of almost pristine bush land. The vegetation shows a higher diversity regarding species and structures than areas to the East and West and hence offers an ample variety of habitats including seasonal river stretches and ponds. About eight new plant species including a locally prevailing *Acacia* species were found here during the May 2006 survey (THULIN et.al. *in preparation*).

The margins of the proposed area are shown in Figure 4.

While the Shabelle IBA covers to a wider extent limestone and gypsum areas, the Qorahey IBA will contain mostly habitats of the deep red sand area, typical for the major part of the Qorahey and Warder Zone. It also includes little disturbed parts of the Fafen seasonal river and its flood plains, totalling to an area size of about 2.800 km².

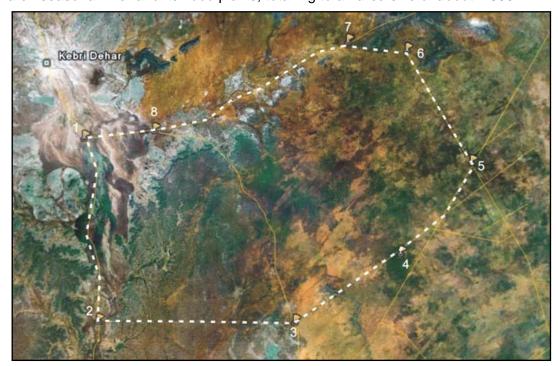


Figure 4: Proposed area of IBA "Central Qorahey Zone"

Almost the same boundary was proposed as a future conservation area to Wildlife Conservation Society, U.S. which may help to bundle future conservation efforts.

IBA Global Criteria for the proposed IBA "Central Qorahey Zone":

Category 1: Globally threatened species

Little Brown Bustard - Near threatened

Short billed Sylvietta - Data deficient

Lappet-faced vulture - Vulnerable

Pallied Harrier - Near threatened; small numbers overwinter in the area

Category 2: Restricted range species

Not reconfirmed but overall data give no strong reason to reject.

White winged Dove

Category 3: Biome-restricted assemblage

At least 60 % of total Ethiopian Somali-Massai biome assemblage

Additional biodiversity conservation issues

Specific botanical diversity on limestone, gypsum, and red sand soils with occurrence of obviously range restricted rare and newly discovered plant species.

Occurrence of endangered or threatened antelopes. Assemblage of Somali-Massai biome mammals and other vertebrates.

Co-ordinates for area corners in Figure 4:

- 1) N 06°35' E 44°20'
- 2) N 06°15' E 44°22'
- 3) N 06°15' E 44°45'
- 4) N 06°23' E 44°57'
- 5) N 06°33' E 45°05'
- 6) N 06°45' E 44°58'
- 7) N 06°46' E 44°51'
- 8) N 06°36' E 44°29'

The demarcation follows roads and easy to identify topographical features.

Anticipated threats

It is difficult to estimate the magnitude of potential threats to habitats and bird communities caused by the way of living of local communities and by future infrastructure development. However, the following threats can be stated and somehow ranked in the order of a potential impact dimension.

- Rehabilitation and operation of Calub Gas Station near Shilabo
- · Bush clearing for fuel, construction and fodder

- Increasing livestock pressure
- Poaching

Jigjiiga Dam and Reservoir

The site recommended here for conservation considerations is perhaps not sufficient to count as an IBA but may fit as a Secondary Area (SA) to protect or support migratory water birds.

The site consists of a man-made reservoir originally planned for irrigation and is located about 6 km Northeast of Jigjiiga. It is surrounded by farmland and several nearby settlements and hence easy to reach.

Repeated visits during DEYR season revealed that the reservoir is used by huge numbers of palaearctic waders and storks as either a transition place on their way further to the South or as over-wintering quarter. In 2003 a small group of Eurasian Cranes were recorded for two days.

In February 2006 about 1.000 White Storks gathered at the reservoir searching for food on the muddy banks. White Storks appear also on plains in the Qorahey Zone if the rain conditions are favourable.

Further investigations, particularly counting of small waders to determine thresholds, may be needed to appraise the significance of the site.

There are a few other larger natural ponds along a side road from Jigjiiga to Kebri Dehar, but never larger aggregations of waders have been seen at these places.

This suggests that the reservoir is an important step stone if not a "bottle neck" for migratory birds.

Figure 5 shows the location of the reservoir.



Figure 5: Location of Dam and Reservoir near Jigjiiga

To some extent the reservoir can be compared with Chelekleka Lake near Debre Zeit although numbers and diversity of waterbirds may not reach the figures of Chelekleka and the surrounding as well as aquatic vegetation is not as rich.

Conservation Criteria for "Jigjiiga Dam and Reservoir"

Category 4: Congregations

The site is believed to hold several thousand waterbirds seasonally.

Twenty waterbird species including palaearctic migrants recorded at this site.

Whether the threshold for the full application of category 4 is fulfilled has to be proved by further surveys.

Co-ordinates:

N 09°23'

E 42°50'

Area size: about 25 ha

Anticipated threats

- Reservoir regularly used for washing of vehicles, especially trucks hence ongoing water pollution. Since the reservoir is not used for irrigation there is little water exchange and washout of pollutants.
- The area is used for military training (i.e. hand grenade practicing) creating disturbance and additional pollution (waste, ammo residuals etc.).
- Hunting of waterbirds especially Egyptian Geese.
- Watering point for livestock
- Impact of artificial fertilizers and pesticides from adjacent farms might be still negligible but can increase with promotion of high yielding crop varieties.
- Realization of originally planned irrigation.

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