

Distribution and phenological data of some bird species of Uganda

ATTILA BANKOVICS¹, JÁNOS TÖRÖK², GÁBOR MICHL², PÉTER PÉCZELY³
& TIBOR CSÖRGŐ⁴



Attila Bankovics, János Török, Gábor Michl, Péter Péczely & Tibor Csörgő 2013. Distribution and phenological data of some bird species of Uganda. – Ornis Hungarica 21(1): 41–57.

Abstract During a twenty five days trip in Uganda a brief faunistic survey of birds, mammals and reptiles was performed. Altogether 380 bird species were observed in six National Parks and some other protected areas in the summer of 2012. From these 64 bird species are discussed here selected according the following criteria: rarity, occurrence in a new habitat or geographic area, and emergence of novel breeding phenological data of certain species. Our new records of House Sparrow (*Passer domesticus*) along the Kazinga Channel (between Lake Edward and Lake George) are outside the current distribution range of the species. The House sparrow expanded its area about 800 km toward west from their first record in Nairobi in 1992. Our new records on White-tailed Ant-thrush (*Neocossyphus poensis*), Red-tailed Ant-thrush (*Neocossyphus rufus*), Papyrus Yellow Warbler (*Chloropeta gracilirostris*), Shelley's Rufous Sparrow (*Passer shelleyi*) and Streaky Seedeater (*Serinus striolatus*) also require the correction of distribution maps of this species in Uganda. In addition we give some remarks on the breeding phenology of Mountain Wagtail (*Motacilla clara*), Cassin's Grey Flycatcher (*Muscicapa cassini*) and Northern Red Bishop (*Euplectes franciscanus*). Our recent observational data of African Skimmer (*Rynchops flavirostris*) may have importance for the Bonn Convention. These observations might be important from conservation and ecotouristic point of views.

Keywords: ecotourism, conservation, global conventions, rainforest, savannah

Összefoglalás 2012. július 11. és augusztus 4.-e között 25 napot töltöttünk el Ugandában madarak, hüllők és emlősök megfigyelésével. Utunk során hat nemzeti parkot és számos egyéb védett területet kerestünk fel, összesen 380 madárfajt észleltünk. Közülük 64 fajt válogattunk ki, melyek előfordulási és viselkedési adatainak közzététele érdeklődésre tarthat számot különféle szempontok, mint a természetvédelem, ökoturizmus, költésbiológia alapján, vagy az elterjedési területük változása miatt. A házi veréb (*Passer domesticus*) kelet-afrikai terjeszkedése során mintegy 10 éve érte el Ugandát, ezért a Kazinga-csatorna melletti megfigyelés jelentős új adatnak számít. További új előfordulási adatok a fehér farkú hangyaringó (*Neocossyphus poensis*), a vörösfarkú hangyaringó (*Neocossyphus rufus*), a papirusz poszáta (*Chloropeta gracilirostris*), a nilusi veréb (*Passer shelleyi*), a csíkos csicsörke (*Serinus striolatus*) vonatkozásában születtek. Költésbiológiai adatokat közlünk a pataki billegető (*Motacilla clara*), a cassin-légykapó (*Muscicapa cassini*) és a tűzhátú szövőmadár (*Euplectes franciscanus*) vonatkozásában. A részleges vonuló afrikai ollócsőrűmadár (*Rynchops flavirostris*) előfordulási adata érdekes lehet a Bonni Egyezmény szempontjából.

Kulcsszavak: ökoturizmus, természetvédelem, globális egyezmények, esőerdő, szavanna

¹ Bird Collection, Hungarian Natural History Museum, 1088 Budapest, Baross utca 13., Hungary, e-mail: attila.bankovics@gmail.com

² Department of Systematic Zoology and Ecology, Eötvös Loránd University, 1117 Budapest, Pázmány Péter sétány 1/c, Hungary

³ 2230 Gyömrő, Köztársaság utca 27., Hungary

⁴ Department of Anatomy, Cell- and Developmental Biology, Eötvös Loránd University, 1117 Budapest, Pázmány Péter sétány 1/c, Hungary, e-mail: csorgo@elte.hu

Introduction

There is a contradiction between the development of economy in African countries and the conservation of wildlife outside protected areas in general. As a consequence of fast human population growth more and more natural areas are occupied by proliferating human settlements and have to be converted into agricultural lands. As a result of these changes, the ancient free areas for wildlife habitats are shrinking continuously. The fragmentation of natural lands led to habitat loss and population decline of many African bird species (Dranzoa 1998). Some articles even deal with the collapse of avifauna in certain forest fragments (Beier *et al.* 2002).

These problems are especially severe in smaller countries with high density of human population like Uganda, where there is a great demand to enlarge the size of different plantations (tea, banana, sugarcane etc.) in the proximity of rainforests. Unfortunately, there is also a forestry practice to change natural forests into tree plantations, and as a consequence very strange landscapes with artificial conifer 'forests' are created (the neighborhood of Budongo Forest). The results of deforestation and these unsustainable silvicultural practices also lead to loss of the biological diversity (Dranzoa 1998).

The aim of this paper is double. First, we would like to draw attention to the new occurrences of some bird species including an interesting record for Uganda avifauna. Second, we present some interesting breeding phenological data of some bird species.

Materials and methods

We spent 25 days with birding in Uganda visiting some national parks, nature reserves

and other protected areas between 11 July and 4 August 2012. In this paper we discuss the occurrence data of 64 bird species belonging to 33 families.

The 64 birds were selected according the following criteria:

- a) The species was found outside its known distribution area published in different field-guides. That means unpublished occurrences. We have to mention, that in some cases our local guides has already known about these occurrences. These information are important to update the distribution borders of these species.
- b) Our records give or confirm phenological data of certain species regarding its breeding biology, behaviour, moulting or its migration.
- c) The record of certain species might have interest for global conservation agreements like Ramsar Convention or AEWA (African – Eurasian Waterbird Agreement) under the Bonn Convention.
- d) The species may be interesting for ecotourism and hence is important for the economy of Uganda. Our paper gives data on the occurrence, habitats, habitat use and detectability of these target species.
- e) It is worth to publish the data just because of the rarity of the species or subspecies.

Visited areas

We would like to give a short description of the visited areas from geographical and conservation point of view. The introduction follows the chronology of the trip.

Entebbe Botanical Garden – Old establishment inside the town at the shore of Lake Victoria.

Banana Village – Small bungalow hostel or camping with a wide well-wooded yard in Kidepo near Entebbe.

Mabamba Bay Papyrus Swamp – Large swampy area near Entebbe along the coast of Lake Victoria. It is an Important Bird Area (IBA) with 9 IBA trigger species and belong to the Ramsar sites of Uganda (http://www.ramsar.org/cda/en/ramsar-documents-texts/main/ramsar/1-31-38_4000_0__).

Mpanga Forest – Hardwood rainforest near Mpigi west from Lake Victoria. Established in 1963. Area: 453 ha.

Mabira Forest – Hardwood rainforest between Kampala and Jinja. Well known ecotourist attraction and lots of visitors come here every year. It is an Important Bird Area with 82 IBA trigger species (<http://www.birdlife.org/datazone/sitefactsheet.php?id=7052>).

Victoria Nile in Jinja – This is the source of the White Nile. We visited the first few kilometer of the river.

Lake Mburo National Park – Important wildlife refuge protecting the southern savannah of the country. Its area: 370 km². The wetlands are partly Ramsar sites and an Important Bird Area, with 12 trigger species (<http://www.birdlife.org/datazone/sitefactsheet.php?id=7051>).

Queen Elisabeth National Park – With its area of 2056 km² it is one of the largest NP's in Uganda. Besides the large open savannah, it has a wide diversity of other ecosystems.

Kazinga Channel Wide natural channel connecting Lake George with Lake Edward in West-Uganda.

Fort Portal area with the Rujuna Hill Top Guesthouse.

Semuliki National Park – This park was established in 1993. It is situated north of

the Ruwenzori Mountains and south of Lake Albert along the Semuliki River. Actually, it is part of the famous Ituri Rainforest ecosystems of DR Congo along the eastern bank of the Semuliki River. Its size is 220 km².

Ruwenzori National Park (area around) – This park was established in 1991. It is situated in the Bundibugyo, the Kabarole and the Kasese districts. Its area is 996 km², of which 70% exceeds an altitude of 2500 m. The park is 120 km long and 48 km wide. We visited two small parts of that huge area, first the Slope near the Semuliki National Park in the Bundibugyo district and secondly, the Foothills in Kasese district.

Semliki Wildlife Reserve – This savannah and wooded savannah region is situated in the Southern Lowland of Lake Albert, with an area some 540 km².

Kibale Forest National Park – It is a medium-altitude moist evergreen tropical forest (Langdale-Brown *et al.* 1964). Located South-east of Fort Portal. Area: 766 km². Its area consists in 77% of different type of forests. The remaining 23% of the area is covered by plantations, exotic conifers, grasslands and swamps. It is an Important Bird Area with, 120 IBA trigger species (<http://www.birdlife.org/datazone/sitefactsheet.php?id=7046>).

Bigodi Wetland Sanctuary – It is located along the Kamwenge road at the vicinity of Kibale Forest NP. The sanctuary itself is part of the larger Magombe papyrus swamp. The management of the sanctuary is recruited from the local community. They get economic benefit from their natural resources. The community-based conservation of certain areas is a widespread phenomenon in other parts of Africa as well (Sekercioglu & Riley 2005).

Nyakasura Crater Lakes near Fort Portal – Among the several lakes we visited only the 370 m deep Kigere Lake, and we made observations on the hillsides pastures on the way and around the Amabere Caves near the Information Center.

Budongo Forest – This famous birding site is a semi-deciduous moist tropical rain forest situated north-west of Masindi. Its average altitude is 1100 m, and the size is 428 km². The average annual rainfall is 1500 mm. Controlled extraction of timber began in the 1930s. Measures of forest structure showed that more than 50 years is required for the forest to recover to pre-logging levels (Plumptre 1996).

Murchison Falls National Park – It is the first and oldest national park of Uganda, and it is also the largest conservation area of the country. Its size is 3840 km². It is situated along the Victoria Nile and it is a part of the Western Rift Valley with Lake Albert and Albert Nile. The wetlands are partly Ramsar sites and an Important Bird Area with 47 trigger species (<http://www.birdlife.org/datazone/sitesheets.php?id=7060>).

Results and Discussion

Altogether 380 bird species were observed during the trip from the total of 1073 species of Uganda. In this paper we discuss the data of only 64 species belonging to 33 families.

Twenty-two families with 35 species belong to the Non-Passerer orders, while 11 families with 29 species are Passerer (Passeriformes). The Murchison Falls National Park, Kibale National Park, Lake Mburo National Park, Mabira Forest Reserve, and the Mabamba Bay Papyrus Swamp as IBAs involve 174 IBA trigger species altogether,

of which 67 bird species were observed during our birding trip.

Species accounts:

PODICIPEDIDAE

Little Grebe – *Tachybaptus ruficollis capensis* (Salvadori, 1884)

One specimen was observed near Fort Portal at the Crater Lakes in the Nyakasura area on 27 July 2012. The bird was on the water edge of the 370 meter deep Kigere Lake.

Great Crested Grebe – *Podiceps cristatus infuscatus* (Linnaeus, 1758)

This is a rare and declining sedentary species in Africa (del Hoyo *et al.* 1992). Two families were observed on the Lake Kigere, which belong to the Crater Lakes in the Nyakasura area near Fort Portal, on 27 July 2012. Beside these families there were other 3+1 adults some hundred meters apart in the same lake. Both breeding pairs were close to each other, and they occupied the south-eastern part of the lake. They seem to avoid the deep (370 m) central part of the Kigere Lake.

Breeding biology and phenology observations: One pair had 2 young still with striped heads, but they were well feathered and rather large size. Nearly as big as their parents. Both parents were feeding their youngs. The second family has had 5 smaller youngs, which were downy and striped headed as well, but their feathers just started to grown. At first they were together, and a few minutes later they divided into two groups. One adult led and fed two chicks, while the other parent led and fed the remaining three.

ARDEIDAE

Little Bittern – *Ixobrychus minutus payesii* (Hartlaub, 1858)

One specimen was observed in Lake Mburo NP on 18 July 2012. The bird was flying along the edge of the papyrus stand in the large marshy area. Another one was seen at the shore of Lake Albert on 31 July 2012.

Common Squacco Heron – *Ardeola ralloides* (Scopoli, 1769)

One immature specimen was observed in the Lake Mburo National Park on 18 July 2012. Another immature was recorded in the Murchison Falls National Park on 31 July 2012. The bird was searching for food on the edge of Lake Albert at the neighborhood of a roosting place of Hippopotamus (*Hippopotamus amphibius*) near some 220 roosting Cattle Egret (*Bubulcus ibis*).

Rufous-bellied Heron – *Ardeola rufiventris* (Sundevall, 1851)

It was recorded only at a single locality during our trip. There were 3 specimens observed in the Lake Mburo National Park on 18 July 2012. The three scattered birds were looking for food at the edge of the large marshy area of the park.

Purple Heron – *Ardea purpurea purpurea* Linnaeus, 1766

This widespread species has an African breeding population in the middle of the southern half of the African Continent. Its nesting range reaches Lake Victoria area from the south (del Hoyo *et al.* 1992). We observed at least four individuals in the Mabamba Papyrus Swamp along the shore of Lake Victoria. All four birds were alone, searching for food mainly on the edge of the papyrus stand. They were rather tame, only

flew up in front of us, when the approaching (boat) canoe was about 20 meters from them. They might be an interesting species for photographers and hence important for ecotourism. One was seen also at the bank of Victoria Nile, near the dam in Jinja on 14 July 2012.

BALAENICIPITIDAE

Shoebill – *Balaeniceps rex* Gould, 1850

Its population has declined rapidly in the last decades. Not persecuted by the local peoples but nevertheless severely threatened. Its total world population was estimated not more than 1500 individuals (Brown *et al.* 1982). Although later del Hoyo *et al.* (1992) estimated its population to be 11000 individuals, based on a more precise estimation in 1986. In Uganda its population was estimated less than 600 individuals in 1977 (del Hoyo *et al.* 1992). It occurs very sporadically, therefore every record might be important for the history of the species in this country. We observed two individuals in the Mabamba Papyrus Swamp on 12 July 2012, and another one in the Lake Mburo National Park on 18 July 2012. This latter bird was searching for food also in a large papyrus swamp with open waters.

CICONIIDAE

Abdim's Stork – *Ciconia abdimii* M. H. K. Lichtenstein, 1823

We saw this species only once. Two individuals were observed in the Murchison Falls National Park on 2 August 2012. The 2 birds joined to a small group of other waterbirds like one Marabou Stork (*Leptoptilus crumeniferus*), 10 White-faced Whistling Ducks (*Dendrocygna viduata*), 1 Grey Heron (*Ardea cinerea*) standing near the bank

of the Victoria Nile a few hundred meters from the Ferry.

Woolly-necked Stork – *Ciconia episcopus microscelis* G. R. Gray, 1848

This African subspecies need more attention, because it is important for the Bonn Convention (http://www.cms.int/documents/convtxt/cms_convtxt.htm). It is listed in Appendix II. of the CMS (Conservation of Migratory Species). That is why every record might have importance. We saw it only once. One specimen was seen flying over the papyrus swamp in Lake Mburo National Park on 18 July 2012.

ACCIPITRIDAE

Lappet-faced Vulture – *Torgos tracheliotus tracheliotus* (J. R. Forster, 1791)

This species was observed only twice. Two birds were seen sitting among some 20 African White-backed Vulture (*Gyps africanus*) in the canopy of a large tree at the edge of a wooded savannah area in the Lake Mburo National Park on 18 July 2012. Second time we found one bird soaring above the savannah area in the Murchison Falls National Park on 2 August 2012.

Great Sparrowhawk – *Accipiter melanoleucus melanoleucus* A. Smith, 1830

Also known as Black Sparrowhawk. We observed one adult female specimen between the Kibale Forest NP near the Bigodi Wetland on 24 July 2012. The bird was flying over abandoned gardens and fallow areas between small woods and tree-groups at the height of the trees.

PHASIANIDAE

Nahan's Francolin – *Francolinus nahani* Dubois, 1905

In three spots of the Budongo Forest were heard its characteristic voice in the early morning hours on 29 July 2012. All of the habitats, where it was heard were mature forests with dense understorey vegetation along the Royal Mile. According to the literature, as well as our observation, it prefers the dense understorey, shy and very difficult to see them (Madge & McGowan 2002, Sande *et al.* 2009).

SAROTHRURIDAE

White-spotted Flufftail – *Sarothrura pulchra centralis* Neumann, 1908

The detectability of this species is rather high. Its presence was easy to detect, because just after entering its territory, it started calling immediately. It was observed in the Mpanga Forest, on 13 July, in Mabira Forest on 15 and 16 July, in Semuliki NP on 21 July and in Bigodi Wetland on 27 July 2012. All birds preferred the wettest part of the mature rainforest. They appeared usually along small rivers or swampy areas of the forests. In the Bigodi Wetland it occurred in the border of the wet forest and the papyrus swamp.

OTIDIDAE

Denham's Bustard – *Neotis denhami denhami* (Children, 1826)

Declining species all over its range in West- and Central-Africa due to hunting and habitat loss but still common in north Uganda (del Hoyo *et al.* 1996). We were lucky to find it in two places in the Murchison Falls National Park, which area is nearly the east-

ernmost distribution of the nominate race. Both observed birds were alone, searching for food in semi-open savannah vegetation and in light woodland. The first bird in semi-open savannah area was accompanied with one or two Carmine Bee-eater (*Merops nubicus*). The bee-eater(s) followed the walking bustard flying above it one meter higher or hovering above sometimes. The second one was feeding in grassy area 400 meter distance from the shore of Lake Albert, and did not pay attention to an immature African Fish-eagle (*Haliaeetus vocifer*) sitting nearby (some 50 meters) on the top of a low shrub.

Black-bellied Bustard – *Lissotis melanogaster melanogaster* (Rüppel, 1835)

It was observed twice. One female individual was recorded in Lake Mburo National Park in light wooded habitat on 18 July 2012. The bird was searching for food in the tall grass among shrubs in late afternoon. One male was in display flight in the grassy savannah area with only a few scattered shrubs on the Lake Albert side of the Murchison Falls National Park on 2 August 2012.

CHARADRIIDAE

Black-headed Lapwing – *Vanellus tectus tectus* (Boddaert, 1783)

It was seen only once. The first 5 specimens of a small group observed (3 adults and 2 in juvenile plumage) in the short grassy area along the bank of Lake Albert in the Murchison Falls NP. These birds were resting during the observation between 11.30 and 11.50 am. A few hundred meters away we watched another 2+2 adults resting in the same habitat.

SCOLOPACIDAE

Common Greenshank – *Tringa nebularia* (Gunnerus, 1767)

During our trip only one specimen was seen. This bird was on its feeding ground in one of the swampy areas in the Lake Mburo National Park on 18 July 2012.

Common Sandpiper – *Actitis hypoleucos* (Linnaeus, 1758)

Three times were seen on its early summer migration. One of them was on the Victoria Nile near the dam in Jinja, on 14 July 2012. We found another one along the steep bank of a small river near the gate of the Lake Mburo NP on 19 July 2012. We observed three (1+2) on the bank of the Lake Albert on 31 July 2012. One of these birds was resting on the back of a Hippopotamus from a group of some 25 animals among Cattle Egrets (*Bubulcus ibis*), one African Jacana (*Actophilornis africanus*) and some Yellow-billed Oxpeckers (*Buphagus africanus*).

STERNIDAE

White-winged Tern – *Chlidonias leucopterus* (Temminck, 1815)

Two data are given on its early summer migration in Africa. 1) It was observed a group of 29 birds flying above the Mabamba Papyrus Swamp along the Lake Victoria near Entebbe on 12 July 2012. All the birds have already been uniformly in their winter plumage. 2) Three birds were recorded flying alone (also all in winter plumage) just a few kilometers under the famous Murchison Falls on the Victoria Nile on 31 July 2012. They were in feeding flight 0-2 meters above the surface of the river.

RYNCHOPIDAE

African Skimmer – *Rynchops flavirostris* Vieillot, 1816

We found this declining intra-african migrant on the Victoria Nile inside the Murchison Falls NP on 31 July and 2 August 2012. Scattered small groups were in rhythmic feeding flight half a meter or less above the water surface of the river. Other time of the day about 150 individuals in were sitting a compact group (resting) on the sandy ground on the mouth of a right side tributary of Victoria Nile. Another group of 120 birds was seen sitting and resting on the edge of the water of Victoria Nile on 2 August 2012. All the data are important for the Bonn Convention, where the species – as the only skimmer from the three species in the world – is listed in Appendix II. of the convention because of its vulnerability. Actually, it is a partial migrant within its range. Their movements are dependent on local rains, the requirement of smooth surface water to feed and exposed sandbanks to rest (Harrison 1983).

COLUMBIDAE

Afep Pigeon – *Columba uncinata* Cassin, 1860

We observed it in the Mpanga Forest in the Mpigi region westwards from Entebbe on 13 July 2012. During the 4-hour observation along a 4 km trip its characteristic voice was heard at 3 places. One freshly moulted tail-feather was found in the same place, showing that the species is in moulting period that time in July. We heard it again in the Budongo Forest on 29 July 2012.

PSITTACIDAE

Meyer's Parrot – *Poicephalus meyeri saturatus* (Sharpe, 1901)

First we saw it in the Lake Mburo National Park on 19 July 2012. One immature bird was flying in the canopy of a low savannah tree near the northern border of the national park. Another was flying nearby that bird giving its high call 'clí-clí'. Last we saw this species on the way returning back from Masindi to Entebbe on 3 August 2012. That time several birds were flying along the road some 20 km before we approached the junction of the main road of Kampala to Sudan.

Grey Parrot – *Psittacus erithacus erithacus* Linnaeus, 1758

This west-african species was rather common in most of the visited rainforests, like Mpanga, Mabira and the Budongo Forest. It was present even inside Entebbe. One individual was seen in the Entebbe Botanical Garden on 11 July 2012. In the Mpanga Forest on 13 July 2012 there were several scattered individuals, 8 birds together were the largest group. All the observed birds were moving or sitting in the high canopy level. They were often giving their simple whistling voice. It was seen also in Dangala area near the Information Center of Mabira Forest on 14 July 2012. The two birds were flying over a ruderal area and village outside the forest.

Red-headed Lovebird – *Agapornis pullarius ugandae* Neumann, 1908

We observed one specimen in the savannah area of Lake Mburo National Park on 19 July 2012. Two specimens were recorded in the Murchison Falls National Park on 31 July 2012. Two birds were seen at the edge of riverine forest along the Victoria Nile some 10 km under the Murchison Falls area.

CUCULIDAE

Red-chested Cuckoo – *Cuculus solitarius* Stephens, 1815

One adult male was seen in the Mabi-ra Forest on 16 July 2012. The bird was flying inside the forest in the mid-canopy, and was sitting for a few minutes on a horizontal branch in a gap at one of the forest clearings.

Black Cuckoo – *Cuculus clamosus* Latham, 1802

This rarely seen bird species was observed only once. One individual in wholly black plumage was flying low (3 meters above the ground) in an open shrubby-grassy savannah area outside of the northern border of Lake Mburo National Park on 20 July 2012.

Dusky Long-tailed Cuckoo – *Cercococcyx mechowi* Cabanis, 1882

We heard *only in one place* the characteristic voice of that species in the Mpanga Forest during the four hours observation time on 13 July 2012 along the 3-kilometer long transect on the ‘Basic Lane’ in the forest.

TYTONIDAE

Barn Owl – *Tyto alba affinis* (Blyth, 1862)

We found a territory some 10 km south from the town Fort Portal just around our small hotel called Rujuna Hill Top Guesthouse. We heard them every night (also watched it few times) between 21 and 27 July 2012.

CAPRIMULGIDAE

Pennant-winged Nightjar – *Macrodyptes vexillarius* (Gould, 1838)

Actually, no living specimens of that species were observed in the wild. We found

only two dead birds probably hit by cars on the forest road inside the Murchison Falls National Park. Both individuals were found in early morning on 1 August 2012. At first the female, then about one kilometer away the male was found in breeding plumage on the same road. The dead birds were fresh, probably hit during the previous night.

APODIDAE

Scarce Swift – *Schoutedenapus myoptilus chapini* (Prigogine, 1957)

It was only observed once. Six individuals were seen in aerial hunting above a gallery forest along a small river in the Semliki Wildlife Reserve on 22 July 2012. They were in the same activity during the half an hour observation.

TROGONIDAE

Narina Trogon – *Apaloderma narina narina* (Stephens, 1815)

This is a target species for ecotourism. We could not see, but heard its characteristic voice several times. It was heard at two places in Mpanga Forest on 13 July 2012 along a 3-kilometer long transect of the mature forest. One was heard in Semliki Wildlife Reserve in savannah woods along the small Waassa River on 23 July 2012. It was heard also in the Budongo Forest on 29 July 2012.

ALCEDINIDAE

African Dwarf Kingfisher – *Ispidina (=Ceyx) lecontei* (Cassin, 1856)

It is also a target species, because it is a rarity for East Africa occurring only in a few places inside Uganda. We have recorded it in three localities. 1: One was seen in the

Entebbe Botanical Garden on 11 July 2012. 2: Another single specimen was recorded in the Mabira Forest on 15 July 2012. This bird was sitting motionless for long period among the twigs 3 meters high of a small tree along the forest path. The bird was rather tame, easy to observe. That is the moister part of the Mabira Forest east from the Kampala – Jinja road. 3: We have found a pair, as well. These two birds were moving in the 2-6 meters strata of the forest edge on the foothills of the Ruwenzori Mountains just in front of the Information Center of the Semuliki National Park.

MEROPIDAE

Swallow-tailed Bee-eater – *Merops hirundineus heuglini* (Neumann, 1906)

During our trip we found quite a few bee-eater species. Altogether 8 species were seen. Some of them were common, but we observed only one occasion the Swallow-tailed Bee-eater. Three young or immature birds were seen in the savannah area of the Murchison Falls National Park on 2 August 2012. All three birds were sitting close together on the lateral twigs of a shrub some 7 meters high above the ground.

Olive or Madagascar Bee-eater – *Merops superciliosus superciliosus* Linnaeus, 1766

It is a migrant mainly from Madagascar. We have got only one record. This bird was observed in Entebbe Botanical Garden near the shore of Lake Victoria on 11 July 2012. The bird was sitting on the top of a dry tree outstanding among the trees of a young forest patch.

BUCEROTIDAE

Black-casqued Wattled Hornbill – *Ceratotymna atrata* (Temminck, 1835)

Observed once in the Semuliki National Park on 21 July 2012. At least two pairs of that species were sitting close together in the canopy of an app. 30-meters high Natalian Mahogany (*Trichilia emetica*) tree standing alone among other mature forest trees. The birds were feeding on the 3-lobed rounded fruits. One pair of Piping Hornbill (*Bycanistes fistulator*) and a few Red-tailed Monkeys (*Cercopithecus ascanius*) also were part of this feeding community.

MOTACILLIDAE

Mountain Wagtail – *Motacilla clara chapini* Amadon, 1954

One pair was observed in the Kibale Forest National Park at the bridge of the road to Bigodi Wetland in the small river of the border of Kammengwe district on 26 July 2012. The birds were in a process of making their nests. Both were collecting nest material mostly green moss from the surface of big stones at the edge of the riverbed. The nest under construction (not seen the exact place) was some 15 meters away in the higher weed vegetation still inside the riverbed but close to the riverbank.

PYCNONOTIDAE

Toro Olive Greenbul – *Phyllastrephus hypochloris* (Jackson, 1906)

It was recorded in two localities. Firstly, along the three kilometer long 'Basic Lane' in the Mpanga Forest where 3 individual were observed in three different places on 13 July 2012. Secondly, we saw one specimen on 21 July 2012 on the northern base

of the Ruwenzori Mountains in the Semuliki National Park.

Xavier's Greenbul – *Phyllastrephus xavieri* (Oustalet, 1892)

One individual was observed in the Mabira Forest on 16 July 2012. The bird habitat was the shrub strata under a 35-meter-tall mature forest. The bird was moving and searching for food in the 6-10 meter zone in the forest interior.

White-throated Greenbul – *Phyllastrephus albigularis albigularis* (Sharpe, 1881)

We found it only in one locality, namely in the Mpanga Forest on 13 July 2012. Only one specimen was observed along the 3-kilometer long 'Basic Lane', which splits the forest.

Yellow-throated Greenbul – *Chlorocichla flavicollis flavigula* (Cabanis, 1880)

We found it only in one locality, on the foothills of the Ruwenzori Mountains in the old mining village, Kilembe near Kasese on 22 July 2012. The two birds were skulking in one of the isolated bushes in the ruderal area of the small, old miner town.

Red-tailed Bristlebill – *Bleda syndactylus woosnami* Ogilvie-Grant, 1907

This species was found at several localities. We found it in two places in the Mpanga Forest on 13 July 2012. One individual was heard in the Bigodi Wetland near Kibale Forest National Park on 24 July 2012.

Green-tailed Bristlebill – *Bleda eximius ugandae* van Someren, 1915

One specimen was seen in the Mabira Forest on 16 July 2012. The habitat was mature forest, where the bird was in the forest interior moving on the 4-10 meters strata

on smaller trees. Second time we found it in two places in the Budongo Forest on 30 July 2012. We made a transect counting along the public road crossing the forest, from the information centre to the southern edge of the forest. Along this 4-kilometer road we observed 1 + 1 individual both in mature forest. One joined to a mixed pycnonotid group feeding in the canopy on the same berries. This group consisted of mostly Little Greenbul (*Andropadus virens*) and Yellow-whiskered Greenbul (*Andropadus latirostris*). The second Green-tailed Bristlebill one kilometer away was also in the forest interior under 35 meters high trees on liana tangles in the 3-15 meter level above the ground.

TURDIDAE

White-tailed Ant-thrush – *Neocossyphus poensis praepectoralis* Jackson, 1906

Although its distribution map shown in Keith *et al.* (1992) reaches the western bank of Lake Victoria in Uganda, the text of the same source restricted it only in West-Uganda. It was found in a new locality of its distribution not mentioned by Stevenson and Fanshawe (2011) in 'Birds of East Africa' either. Namely, it was recorded in the Mpanga Forest near Mpigi a few kilometers west from Lake Victoria on 13 July, 2012. Four individuals were recorded scattered along the 'Basic Lane'. They were first identified by our guide, *Nanyombi Prossy*, who knew exactly the voice of that species. All the individuals preferred the deeper wet part of the forest with moderately dense understorey, where they were moving on the ground and the shrubs in the 0-2 meter zone. We observed this species later again in its known distribution area, namely in the Bigodi Wetland near the Kibale Forest National Park in West Uganda on 24 July 2012. One speci-

men was singing in a deep ditch with original vegetation just under a slope with cocoa and coffee plantation. The population of this species here in the latter habitat suffered a severe habitat loss. If we consider the paper of Hulme *et al.* (2013), this species here in Bigodi Wetland is belonging to the 'losers'. Our other guide, *James Katangole*, was helping us when he identified the voice of White-tailed Ant-thrush.

Red-tailed Ant-thrush – *Neocossyphus rufus* ssp.(?) Neumann, 1908

One specimen was seen in the Mabira Forest on 14 July 2012. The bird was searching for food in the edge of small gaps in a mature part of the forest. Its activity was restricted in a strata of 1-6 meters above the forest floor. Its distribution map in the 'Birds of East-Africa' (Stevenson & Fanshawe 2011) did not show that area for that species. The Lake Victoria area is not mentioned concerning that species. Thus, according to this record, the Mabira Forest is a new locality of the Red-tailed Ant Thrush in Uganda. But it raised a question. Possibly the observed bird belong to the *N. r. gabunensis* subspecies, which is distributed in West-Uganda, or might belong to the nominate race (*N. r. rufus*), which is living also not far from this new locality in Kenya and also in the Tanzanian side of the border in disjunct areas?

Common Stonechat – *Saxicola torquatus axillaris* (Shelley, 1884)

One pair was observed on a hilly pasture land near Fort Portal at the Crater Lakes on 27 July 2012. The behaviour of the birds has shown the characteristics of pre-breeding period.

SYLVIIDAE

Papyrus Yellow Warbler – *Chloropeta gracilirostris gracilirostris* Ogilvie-Grant, 1906

This rare and vulnerable species is known in West-Uganda from the Lake Edward and the Lake George areas. One specimen singing in the Mabamba Bay Papyrus Swamp was observed during a bird-safari on 12 July 2012. The distribution map of Birds of East Africa (Stevenson & Fanshawe 2011) does not show that area for that bird species. The Mabamba Bay Papyrus Swamp is an Important Bird Area (IBA) along the northern shores of Lake Victoria west of Entebbe. The habitat of the observed specimen of Papyrus Yellow Warbler was the inner fringe of the papyrus stand just on the edge of the wide-open water patch in the middle of the swamp. The bird was flying up from the papyrus stem some 3-4 meters away, gave an aerial singing and flew back to its place on the papyrus stem. It seemed to us that the local field ornithologists and conservationists have already known about the occurrence of that species in the Mabamba Swamp. This bird belongs to the 49 East-African species red-listed by BirdLife in 2000 (Stevenson & Fanshawe 2011). It also occurs in Kenya along the shore of Lake Victoria at Kadenge, where Britton (1978) placed it among the species which not numerous, but found regularly. He recorded it from the total of 15 observation days in 15 months 9 times, and he caught 6 individuals by mistnets.

Grey Longbill – *Macrosphenus concolor* (Hartlaub, 1857)

It is relatively a widespread species inside of its disjunct area, but the detectability is very low. One specimen in Mabira Forest was observed, on 16 July 2012.

Green-backed Eremomela – *Eremomela canescens canescens* Antinori, 1864

A small group of three birds was recorded in the Semliki Wildlife Reserve on 26 July 2012. They were grey-headed, white-throated, but generally yellowish green birds. They were feeding on low scattered trees at a height of 4-7 meters in the savannah habitat of the reserve.

There is a taxonomical confusion about the 'form' of that species we observed in the Semliki Wildlife Reserve. According to Stevenson and Fanshawe (2011) we can identify it as '*Eremomela pusilla*', which is a West-African species of that genus according to Dickinson (2003) and del Hoyo *et al.* (2006). It means that the latter authors not merge the observed 'form' (*E. canescens canescens*) into the '*Eremomela pusilla*' they separated the two species. Here, we follow the latter idea treating the 'form' separated as it is indicated by the title.

Black-faced Rufous Warbler – *Bathmocercus rufus vulpinus* Reichenow, 1895

The detectability of this species is not bad, because of its distinctive voice, but to actually to see it is not easy because of its hiding behaviour in the dense bushy habitat. We observed it only once at the vicinity of the waterfall on the small Ruwenzori river at the Amabere Caves near Fort Portal on 27 July 2012. At first one specimen gave its nice whistling voice in a damp narrow valley with dense secondary bush surrounded with wooded pastures. A few minutes later we heard another specimen in a distance of two hundred meters.

CISTICOLIDAE

Carruther's Cisticola – *Cisticola carruthersi* Ogilvie Grant, 1909

One specimen was singing along the shore of the Lake Albert near a roosting place of a group of 36 Hyppopotamus in the Victoria Nile delta on 2 August, 2012. The bird was sitting and singing sometimes in the top of the scattered reedstems. We heard another three songs of that species in some half hectare of that kind of habitat.

Red-winged Grey Warbler – *Drymocichla incana* Hartlaub, 1861

Two specimens were observed in the Murchison Falls NP along the Victoria Nile near the place of the Ferry on 1 August 2012. The birds were moving and searching for food in a higher stratum (5-9 meters) of the canopy of a secondary bush on the slope of a small hill. The birds were cocked the tail and one of them had given his high-pitched song.

Grey-capped Warbler – *Eminia lepida* Hartlaub, 1881

Although this species has a wide range in southern half of Uganda, we found it only at one locality. One specimen was observed along the shore of Lake Victoria (inside the Entebbe Botanical Garden) in the shrub among scattered trees on 11 July 2012.

MUSCICAPIDAE

Cassin's Grey Flycatcher – *Muscicapa cassini* Heine, 1859

It is mentioned here, because of new observations on its breeding phenology. One pair was searching for food, catching small flying insects along the small river, at the bridge (the border of Kammengwe district) in Kibale Forest National Park, some twenty kilometers from the town Fort Portal on 25 July 2012. Their nest was built on the edge of a big stone lying in the water near the edge of the river just about 40 cm above

the water-surface. It has already contained one egg, but still not incubated. For time to time one of the birds was sitting in the nest for a few minutes.

MALACONOTIDAE

Black-headed Gonolek – *Laniarius erythrogaster* (Cretzschmar, 1829)

It is a target species for ecotourism and birdwatchers. We found it in several localities. It is a spectacular, rather common and relatively tame bird, therefore easy to watch it. We observed two individuals in the Entebbe Botanical Garden on 11 July 2012 and found it at least four places in a habitat of with scattered shrubs along the shore of the Mabamba Papyrus Swamp on 12 July 2012. It was recorded even in urban habitats. We were watching one adult (might be two) and at least one young in post-juvenile molting condition, an open-air garden restaurant on 4 August 2012. The adult(s) came from the hedge landed on tables or on the floor and feed the young frequently in the bush. They came one by one several times during the afternoon hours.

Papyrus Gonolek – *Laniarius mufumbiri* Ogilvie-Grant, 1911

It is a 'restricted habitat' species closely associated with Papyrus (*Cyperus papyrus*) and belongs to the papyrus endemics of Lake Victoria area (del Hoyo *et al.* 2009). Skulking in its habits in the dense vegetation it was very difficult to see. We heard the short song of that species in one place of the Mabamba Papyrus Swamp on 12 July 2012. This shy bird has a special habitat, using the old papyrus stand fringed of the central greater open-water of the swamp. It is a target species of eco-tourism. That bird is rather common in the Kenya part of the

Lake Victoria at Kadenge in the north-east (Britton 1978).

Northern Puffback – *Dryoscopus gambensis congicus* Sharpe, 1901

One was seen in the Entebbe Botanical Garden on 11 July 2012. The bird was moving in the canopy at 25 meters level of the old mature 28 m high trees. Another observation: also one individual was seen in the Queen Elisabeth National Park on 20 July 2012.

Bocage's Bush-shrike – *Malaconotus bocagei jacksoni* (Sharpe, 1901)

It was observed twice on 24 and 25 July 2012, on both occasions nearly the same place near the southern edge of the Kibale Forest. The birds – in both case only one specimen – was joined to a mixed feeding flock of song birds, searching for food on the shrubs and small trees along the red laterit road to Bigodi Wetland.

PASSERIDAE

Shelley's Rufous Sparrow – *Passer shelleyi* Sharpe, 1891

We saw this species only at a single locality. One male and a few meters away another two specimens were seen in the savannah area with scattered bush north of the Victoria Nile in the Murchison Falls NP on 1 August 2012. Fry and Keith (2004) also mentioned it from the Murchison Falls NP.

House Sparrow – *Passer domesticus* (Linnaeus, 1758)

This species is not native in the area. It was introduced to East-Africa at Mombasa one hundred years ago but was spreading very slowly. It was first recorded in Nairobi only October 1992 (Zimmerman *et al.*

1996). The new field guide 'Birds of East Africa' (Stevenson & Fanshawe 2011) not mentioned that species in Uganda. The first record for Uganda came only recently, at the beginning of this century: on 21 November 2001 at Kibimba rice scheme, SE Uganda (Fry & Keith 2004). We found the House Sparrow at one locality, east of the Ruwenzori Mountains in the small village Rukoma, just on the northern bank of the Kazinga Channel on 20 July 2012. One adult female was searching for food on the ground in the main street of that village and a few hundred meters away there were another 5 specimen on the same street. By that occurrence the species made a big jump to the west. We did not found it in the eastern part of the country. We note, A. Bankovics observed one specimen at a fuel station near Lake Nakuru, in Kenya on 20 November 2005 (unpublished record). That area is also on the western front in its spreading.

PLOCEIDAE

Northern Red Bishop – *Euplectes franciscanus franciscanus* (Isert, 1789)

One nest was found with two incubated eggs in the shore of the Lake Albert in the Murchison Falls National Park on 2 August 2012. The cup-shaped nest was placed in dense 'reed' stand at 160 cm height from the ground. We found this species rather common in the marshy habitats along the shore of Lake Albert. Many other males of this species were in display these days in that area.

ESTRILDIDAE

White-breasted Negrofinch – *Nigrita fusconotus* Fraser, 1843

One specimen was seen in the Mabira Forest on 15 July 2012. Two individuals

were observed in the Budongo Forest on 30 July 2012. The two birds – likely one breeding pair – were feeding together in a lateral branch, 8 meter above the road crossing through the forest. They were feeding like warblers searching for food on terminal shots and among leaves of the canopy. The White-breasted Negrofinch is a West-African species with two subspecies. In Uganda the nominate race occurs with the easternmost distribution of the species.

Grey-headed Oliveback – *Nesocharis capistrata* (Hartlaub, 1861)

One male was seen in the Murchison Falls NP savannah area on 2 August 2012. The bird joined a mixed estrildidae feeding flock, which consisted of mostly Bronze Mannikin (*Lonchura cucullata*) and African Firefinch (*Lagonosticta rubricata*).

Red-headed Bluebill – *Spermophaga ruficapilla* (Shelley, 1888)

It is a rarely seen species, target for eco-tourism. We observed it in two localities. First we saw it in the Mabira Forest on 16 July 2012. That bird was moving in the shrub strata of a high primary rainforest interior. The other locality where we saw it was the Bigodi Wetland in West Uganda on 24 July 2012. That time first we saw a pair of that bird coming out from a dense bush. Than they were searching for food in a cleared area near the secondary bush vegetation. Some hundreds meter away that place we found another individual of that species in cocoa plantation.

FRINGILLIDAE

Streaky Seedeater – *Serinus striolatus striolatus* Rüppell, 1840

One specimen was observed North-west from Entebbe in the yard of the small ho-

tel 'Banana Village' on 11 July 2012. The bird was sitting on the top of a high tree that dropped down all its leaves that part of the year. It was observed with a binocular and a scope. The bird was bigger than the commoner Black-throated Seedeater (*Serinus atrogularis*) with a heavier bill, and its throat patch was whitish. The 'Birds of East Africa' (Stevenson & Fanshawe 2011) not mentioned this are in its distribution. The nearest place where it is shown on the map of that book is north of the Lake Victoria along the Ugandan /Kenyan border some 150 kms away. Also, according to Fry and Keith (2004) it occurs in Uganda only in the Ruwenzori mountains along the western border of the country.

Conclusion

The ornithological importance of Uganda is due to confluence of some very different biomes, namely lowland and highland forests, savannahs and other grasslands, leading to the high diversity of the bird species in Uganda. In the present paper altogether 64 species belonging to 33 families are discussed from the 380 bird species recorded during the 25-days survey trip in Uganda. The most important species in the different selected groups are as follows:

Birds are often found in Africa even today outside their recently known range, that is why new distributional records are always important (Keith & Twomey 1968). One of the most important groups is those species, which were found in new localities not mentioned in the literature before. They are: *Neocossyphus poensis*, *Neocossyphus rufus*, *Chloropeta gracilirostris*, *Eremomela pusilla*, *Passer rufocinctus*, *Passer domesticus* and *Serinus striolatus*.

A larger part of the species is important because of ecotourism. Ecotourism especially important in the economy of Uganda and as a consequence important in nature conservation, as well. In order to find target species for tourists this paper shows the occurrences of some species mentioned above like *Ardea purpurea*, *Balaeniceps rex*, *Torgos tracheliotus*, *Sarothrura pulchra*, *Neotis denhami*, *Pocephalus meyeri*, *Psittacus erithacus*, *Agapornis pullaria*, *Macrodypteryx vexillarius*, *Apaloderma narina*.

Some species are mentioned simply because of their rareness or low detectability, like *Francolinus nahani*, *Accipiter melanogaster*, *Cuculus solitarius*, *Cuculus clamorus*, *Cercococcyx mechowi*, *Schoutedenapus myoptilus*, *Malaconotus bocagei* and *Nesocharis capistrata*. Some other species are mentioned because their races occurring in Africa are different from our European ones. These are *Tachybaptus ruficollis capensis*, *Ixobrychus minutus payesii*, *Tyto alba affinis*.

A few species were exposed because we got phenological data about their breeding biology. They are *Podiceps cristatus*, *Motacilla clara*, *Muscicapa cassini*, *Euplectes franciscanus*.

A few bird species were selected because of the data of its migration both intra-African one or palearctic. Both migration types have importance for the Convention of Migratory Species (Bonn Convention) or the Ramsar Convention, the latter dealing with the waterfowl habitats. These migratory species mentioned in our list are: *Ardeola ralloides*, *Ardeola rufiventris*, *Ciconia abdimii*, *Ciconia episcopus*, *Vanellus tectus*, *Tringa nebularia*, *Actitis hypoleucos*, *Chlidonias leucopterus*, *Rynchops flavirostris*, *Merops hirundineus* and *Merops superciliosus*.

Acknowledgements

We are grateful to all of our guides during our trip, especially to *Nanyombi Prossy* (Mpanga Forest), *Ruth* (Semliki Wildlife Reserve), *Nanyondo Maria* (Mabamba Papyrus Swamp), *Azaria* (Lake Mburo Na-

tional Park), *James Katangole* (Bigodi Wetland), *Justis* (Semliki National Park), and to *Robert Mirembe* (Amabere Caves and Crater Lakes near Fort Portal) and of course for our driver *Vincent*, who was also a good guide of wildlife as well.

References

- Beier, P., Van Drielen, M. & Kankam, B. O. 2002. Avifaunal collapse in West African forest fragments. – *Conservation Biology* 16: 1097–1111. doi: 10.1046/j.1523-1739.2002.01003.x
- Britton, P. L. 1978. Seasonality, density and diversity of birds of a papyrus swamp in Western Kenya. – *Ibis* 120(4): 450–466.
- Brown, L. H., Urban, E. K. & Newman, K. (eds.) 1982. *The Birds of Africa*. Vol 1. – Academic Press, London, New York etc.
- Dranzoa, C. 1998. The avifauna 23 years after logging in Kibale National Park, Uganda. – *Biodiversity and Conservation* 7: 777–797.
- Fry, C. H. & Keith, S. (eds.) 2004. *The Birds of Africa*. Vol. 7. – Christopher Helm, London
- del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) 1992. *Handbook of the Birds of the World*. Vol. 1. – Lynx Edicions, Barcelona
- del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) 1996. *Handbook of the Birds of the World*. Vol. 3. Hoatzin to Auks. – Lynx Edicions, Barcelona
- del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) 2006. *Handbook of the Birds of the World*. Vol. 11. Old World Flycatchers to Old World Warblers. – Lynx Edicions, Barcelona
- del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) 2009. *Handbook of the Birds of the World*. Vol. 14. Bush-shrikes to Old World Sparrows. – Lynx Edicions, Barcelona
- Dickinson, E. C. (ed.) 2003. *The Howard & Moore complete checklist of the birds of the World*. – Christopher Helm, London 3rd edition
- Harrison, P. 1983. *Seabirds an identification guide*. – Christopher Helm, London
- Hulme, M. F., Vickery, J. A., Green, R. E., Phalan, B., Chamberlain, D. E., Pomeroy, D. E., Karebeka, R., Bolwig, S. & Atkinson, P. W. 2013. Conserving the birds of Uganda's Banana-Coffee/Land Sharing Compared. – *PLoS ONE* 8(2): e54597. doi:10.1371/journal.pone.0054597
- Keith, S. & Twomey, A. 1968. New distributional records of some East African birds. – *Ibis* 110: 537–548.
- Keith, S., Urban, E. K. & Fry, C. H. (eds.) 1992. *The Birds of Africa*. Vol. 4. – Academic Press, San Diego
- Langdale-Brown, H. A., Osmaston, H. A. & Wilson, J. G. 1964. *The vegetation of Uganda and its bearing land-use*. – Uganda Government Printer
- Madge, S. & McGowan, P. 2002. *Pheasants, Partridges and Grouse*. – Christopher Helm London pp. 1–488.
- Plumptre, A. J. 1996. Changes following 60 years of selective timber harvesting in the Budongo Forest Reserve, Uganda. – *Forest Ecology and Management* 89(1): 101–113. doi:10.1016/S0378-1127(96)03854-6
- Sande, E., Dranzo, C., Wegge, P. & Carroll, J. P. 2009. Home ranges and survival of Nahan's Francolin *Francoelinus nahani* in Budongo Forest, Uganda. – *African Journal of Ecology* 47: 457–462. doi: 10.1111/j.1365-2028.2028.00990.x
- Sekercioglu, C. H. & Riley, A. 2005. A brief survey on the birds in Kumbira Forest, Gambela, Angola. – *Ostrich* 76(3–4): 111–117.
- Stevenson, T. & Fanshawe, J. 2011. *Birds of East Africa Kenya Tanzania Uganda Rwanda Burundi*. – Helm Field Guides, Christopher Helm, London
- Zimmerman, D. A., Turner, D. A. & Pearson, D. J. 1996. *Birds of Kenya and Northern Tanzania*. – Christopher Helm, A & C Black, London
- <http://www.birdlife.org/datazone/sitefactsheet.php?id=7046>
- <http://www.birdlife.org/datazone/sitefactsheet.php?id=7051>
- <http://www.birdlife.org/datazone/sitefactsheet.php?id=7052>
- <http://www.birdlife.org/datazone/sitefactsheet.php?id=7060>
- http://www.cms.int/documents/convtxt/cms_convtxt.htm
- http://www.ramsar.org/cda/en/ramsar-documents-texts/main/ramsar/1-31-38_4000_0__