

THE Naturalist

NEWSLETTER FOR NATURE LOVERS

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*Nature*Uganda

Lake Bunyonyi

TO BECOME A RAMSAR SITE

In this issue

NatureUganda joins the Fight against the Coronavirus Pandemic **Pg 6**

The Rediscovery of the Fox's Weaver; Uganda's only endemic bird **Pg 12**

Biodiversity assessments of Lake Bunyonyi and associated Wetlands **Pg 14**

CONTENTS



8. COVER STORY

The second deepest Lake in Africa, Lake Bunyonyi to be designated a Ramsar site



4.

First National Strategy for the Conservation of the Grey Crowned Crane



12.

The Rediscovery of the Fox's Weaver; Uganda's only endemic bird

3 Chairman's Message

NEWS

- 4 Government Launches the first National Strategy for the Conservation of the Grey Crowned Crane; Uganda's National Symbol.
- 6 NatureUganda joins the Fight against the Coronavirus Pandemic
- 7 NatureUganda shines at the World Wetlands day 2020 Celebrations in Bushenyi
- 8 The second deepest Lake in Africa, Lake Bunyonyi to be designated a Ramsar site
- 11 Jimmy Muheebwa scoops a species recovery Award.

PROJECTS

- 12 The Rediscovery of the Fox's Weaver; Uganda's only endemic bird
- 14 Biodiversity assessments of Lake Bunyonyi and associated Wetlands

FROM THE WILD

- 17 Big Birding Day 2019; a new 24-hour Birding Record set
- 18 Unusual Sightings
- 18 Promoting Citizen Science through Bird Population Monitoring Programme
- 19 Opening our Eyes to Aloes of Uganda:
- 20 Membership

EDITORIAL TEAM

Editors:

Achilles Byaruhanga, Dianah Nalwanga, Sandra Sayuni

Contributors:

Cathy Watson, Robert Kityo, and NatureUganda Team

Photos:

All credit to NatureUganda

STAY SAFE



Wash your hands thoroughly with soap



Maintain a 2 meters social distance from one another



Do not touch your eyes, nose and mouth



CHAIRMAN'S MESSAGE

Dear Members,

It is with great Pleasure that I extend my warm greetings and welcome you all to this Special edition of "The Naturalist". It has been long since the last issue (Volume 29) but we are happy to share with you this copy with detailed update on the major activities of the Society since 2019.

NATUREUGANDA OFFICES

Despite the challenges of the global Covid-19 pandemic, NatureUganda continued to push forward its programmes in research and conservation. Only public awareness and education activities were interrupted due to limitation on public gatherings. We have therefore not been able to organize Public Talks, Nature Walks or excursions and community meetings at field were affected. NatureUganda has opened all offices again with following strict guidelines from WHO and government. I therefore call upon you to join me as I extend my sincere thanks to our Executive Director, Mr. Achilles Byaruhanga and his team for the commitment shown during this pandemic. They have not only been able to sustain most activities of the organization, but have been active and successful in raising additional funds.

NEW PROGRAMMES SINCE 2019

The year 2019 was a successful year for NatureUganda and for conservation with new funded projects. These included the Darwin funded project for conservation of Bunyonyi and associated wetlands (funded by Darwin Initiative), Crane Conservation project in South West

Uganda (Whitley Fund for Nature), a pilot programme on climate smart innovations project in the Albertine Rift (funded by CISU) and support to restoration of selected sites including Mabira Forest Reserve (funded under Trillion tree programme). These initiatives were in addition to existing programmes and projects including continued support to community initiatives covering over 20 Important Bird Areas, People Partner with nature and others related to research and monitoring. In this special Edition, we review main interventions and achievements.

ONGOING ACTIVITIES

Nonetheless, in March this year, we finalized the first National Strategy for the conservation of the Grey Crowned Crane (the national bird) and was launched in March 2010 at the Crane Festival held during the World Wildlife Week in Kabale. The function was presided over by Hon. Minister for Tourism, Wildlife and Antiquities. In August 2019, we conducted a survey of the Fox's Weaver, Uganda's only endemic bird species and the breeding sites were located and mapped. This was a request and recommendation from last year AGM and we are happy to have finally located and mapped the breeding sites of the species. The secretariat is developing a programme to study the breeding behavior and map the full range of the species. This will help in designing a conservation programme for the only endemic species for Uganda. Furthermore, we have worked in Kabale for a longtime with identification of IBAs in the region in 2001 and the data we have point to a potential of Lake Bunyonyi qualifying for Ramsar designation. NatureUganda is now working with District of Kabale and Rubanda to designate Lake Bunyonyi as the first Ramsar site in south western region of Uganda.

DISRUPTION OF COVID-19 PANDEMIC

When the World Health Organisation (WHO) declared the Coronavirus

a global pandemic on 11th March 2020, NatureUganda immediately prepared for the 'new normal' working style. Until the President declared lockdown for the country on 26th March 2020, NatureUganda had prepared the team to work from their homes and all the essential activities remained operational. Our three offices in Kamapala, Rubirizi and Kabale were temporarily closed and maintained our operations with all staff working online to ensure that we follow the WHO guidelines. Nonetheless, all activities that did not require coming together such as report production, proposal writing and planning continued and the team remained coordinated through online weekly meetings.

ANNUAL GENERAL MEETING 2020

As I had communicated earlier, it was not possible to organize our Annual General Meeting that was due in 23rd April 2020 which was postponed until when the guidelines will be relaxed and it is safe enough to organize such a gathering. I am glad to note that the state of technology for communication and information sharing has since improved and many of us can now have online meetings, workshops and teleconferences, which is a positive result from the pandemic.

Lastly, to you our members I want to thank you especially those who kept in contact during the Pandemic, especially through our platforms on twitter, face book, WhatsApp and emails. We are in the processing of reviewing our system to strengthen the online communication to serve you better.

Let's stay safe, wear masks in public, avoid crowded places, ensure social distancing and wash your hands often. Together we shall defeat covid-19.

I wish you good reading!

Hon. Arimpa Kyigyagi
Chairman

Government Launches
first National Strategy
for Conservation of the

GREY CROWNED CRANE

Uganda's National Symbol



On 2nd March 2020 in Kabale, western Uganda, NatureUganda's long time advocacy efforts on the conservation of the Grey Crowned Crane were rewarded by the Launch of the National Conservation strategy for the Species.

This was launched by the State Minister for Tourism Hon. Godfrey Kiwanda Ssubi during the Crane Festival celebrated under the theme “Bend the Curve of the Crane population decline” at Kikungiri primary school in Kabale. The celebrations were held during the Wildlife week held as part of the World Wildlife Day celebrations for Uganda. The Grey Crowned Crane is globally threatened with extinction and is the National bird for Uganda.

The function was organised by NatureUganda through its African Crane Conservation Project, which is implemented in partnership with International Crane Foundation and Endangered Wildlife Trust. The event attracted hundreds of participants including national leaders, local district leadership, primary school children, university students, conservationists, civic society leaders, the media fraternity, private sector practitioners and politicians. Surprisingly, cranes which were slated to be the centre of the focus during the celebrations made maiden physical appearances and hovered above the congregation, to the amazement of many participants.

To kick off the celebrations, a radio talk show was held on the eve of the festival during which several aspects of the national plan were discussed.

The next morning on the festival day a brass band march led by teams of crane custodians and students dressed in crane T-shirts and displaying banners publicising the need for the conservation of the Grey Crowned Crane. Guided by the traffic police and led by brass band, the procession marched through Kabale town up to the celebrations venue, Kikungiri primary school.

The Guest of Honor was the Minister of State for Tourism, Wildlife and Antiquities and with guidance from Mr. Achilles Byaruhanga; the Executive Director, the function proceeded with a tour of the exhibitions by communities and the schools participating in Crane conservation. There were speeches from invited guests and performances by the Schools and community groups. The event was crowned by the launch of the Grey Crowned Crane Conservation Strategy for Uganda by the Minister, the first of its kind in Uganda. During the launch, the main threats to the species were highlighted as being habitat loss and human interference and the Minister pledged the support of government towards the implementation of the strategy.

Surprisingly, cranes which were slated to be the centre of the focus during the celebrations made maiden physical appearances and hovered above the congregation, to the amazement of many participants.



NATUREUGANDA JOINS THE FIGHT AGAINST THE CORONAVIRUS PANDEMIC

NatureUganda joined the national fight against the Coronavirus pandemic by supporting the districts of Kabale, Kisoro and Rubanda to strengthen their district response taskforces. In 2001, NatureUganda identified four Important Bird Areas (IBAs) now Key Biodiversity Areas (KBAs) in districts of Kabale, Kisoro and Rubanda. NU has implemented an integrated development and conservation project in Echuya landscape for over 15 years and more recently has provided support to conservation of wetlands, Grey Crowned cranes and Lake Bunyonyi and has become a key conservation and development partner in the three districts.

The outbreak of Corona virus pandemic that is ravaging the whole World broke out at a time when no country developed or underdeveloped, had prepared for such an epidemic.

While the World health Organisation guided on the global strategy to fight the virus, the panic that ensued resulted in each country taking their own paths based on the guidance provided by their health experts and political leaders.

Indeed, African countries were even less prepared than their European, American or Asian counterparts. However, there were common Standard Operation Procedures (SOPs) as guided by WHO which

included to; wash hands regularly or sanitize, observe social distance, cover your face and nose with a mask and avoid touching the soft parts on your face (eyes, mouth, nose).

In Uganda, government responded quickly by setting up taskforces at national and district levels to coordinate the fight against the pandemic. The national level taskforce was led by the Prime Minister and the District level taskforces were led by District Resident Commissioners (RDCs). The SOPs from WHO were complemented by directives from the President that included quarantine of all people entering the country, curfew from evening to morning and a lockdown of the country to contain the virus and reduce or stop spread of the virus except for those providing essential services like health and security.

The lockdown was tantamount to sending the whole country into isolation or quarantine. However, given the economy of Uganda as with the other African countries, there was not enough funds to support the taskforces and feed the needy population in lockdown. The taskforces were hit by the reality of lack of resources to manage the situation in particular the sick without transport, families without food and movements of the taskforce members to enforce the lockdown.

Conversely the President called for support from well-wishers for the taskforces to effectively perform their duties in fighting the pandemic.

It was at this point that NatureUganda, as one of the biggest NGOs in our project districts, provided support, in terms of 100 liters of fuel to each of the three districts of Kabale, Rubanda and Kisoro, for their ambulances.

The support would indirectly support our community members with whom we implement projects since we were not allowed to operate during the lockdown. The contribution would have an impact on the hard to reach areas where most of our communities reside to provide relief in such unpredictable situations.

Whereas it is highly suspected that the Coronavirus resulted from wildlife, it is indeed critical that moving forward, we put in place more strategies to reduce the spread of such zoonotic diseases.

For us as Conservationists, we strongly advocate for careful and professional handling of wildlife and therefore calling upon the wildlife experts to exercise more vigilance in avoiding such outbreaks in wildlife. Nonetheless, we are optimistic, that if Ugandans respond and work together following the MOH support and guidance from WHO, Coronavirus will be defeated sooner rather than later.



NATUREUGANDA SHINES AT THE WORLD WETLANDS DAY 2020 CELEBRATIONS IN BUSHENYI

It was a memorable experience for the Crane NatureUganda team and the local communities who were at the World Wetlands Day 2020 celebrations at Bumbaire grounds, Bushenyi district on 7th February 2020. Many communities and other organisations attended not only to showcase how they conserve wetlands and other biodiversity therein but also learn from their counterparts involved in similar work elsewhere in the country.

Holding the banner that highlighted Crane and wetlands conservation work in the Crane programme titled “Saving the Endangered Grey Crowned Crane in East Africa” being implemented by the Endangered Wildlife Trust/ International Crane Foundation/ NatureUganda Partnership, the team exhibited their work and exchanged

knowledge with the other like communities who attended. Key to the lessons shared were the highlights on the achievements in Crane conservation work in Uganda.

Celebrated annually on 3rd February, World Wetlands Day aims to raise global awareness about the vital role of wetlands for people and planet. The World Wetlands Day of 2020 had drawn attention to the vital role of wetlands as a natural solution to cope with Climate Change effects.

However, wetlands are declining three times faster than forests World over hence a need to sound drums of warning against their unsustainable use. This is what the Cranes project is championing in Uganda and supporting the country in the realization of the national theme – “Life thrives in wetlands, protects them.”

As part of these celebrations, NatureUganda supported a radio talk show at Voice of Kigezi in Kabale which was a moving moment as we engaged with listeners over matters concerning the importance of wetlands to human life, to biodiversity and their role in Climate Change mitigation. Together with the District Natural Resources Officer for Kabale, Mr. Rogers Akatwijuka, we highlighted the Crane conservation actions that reduce human dependence on wetland-based resources and secure all biodiversity forms.

This was part of the Crane project purpose in raising awareness on the importance of wetlands in improving people’s livelihoods and wellbeing and calling upon the communities to protect the wetlands because their lives depend on them.

The second deepest Lake in Africa,

Lake Bunyonyi

to be designated a Ramsar site

NatureUganda is raising the profile of Lake Bunyonyi and associated Wetland systems to become a Ramsar site with funding from the project "Secure Wetland Ecosystems to improve livelihoods through Community Conservation Agreements." Several studies have been conducted on wetland ecosystem services and biodiversity richness and all studies show that the lake qualifies for Ramsar designation. Lake Bunyonyi is located in southwestern Uganda in the districts of Kabale and Rubanda

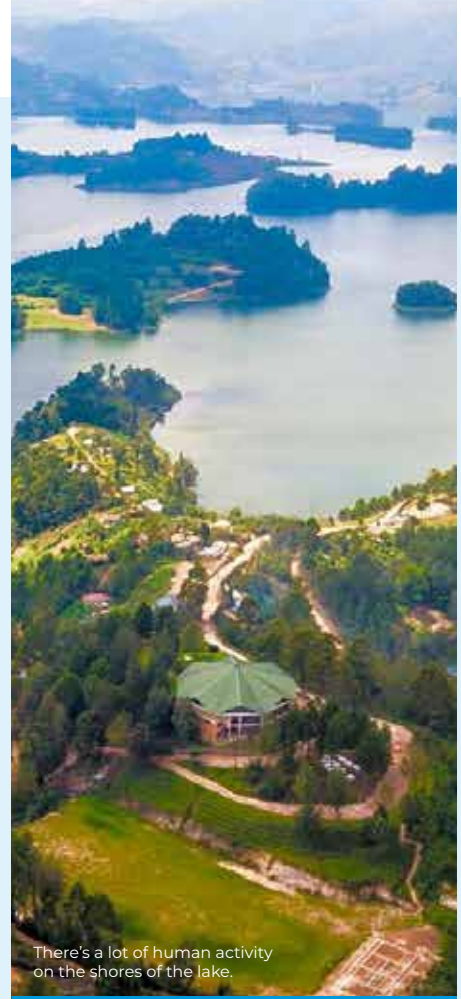


The name Bunyonyi is derived from the Banyoni clan who occupied the area in the 18th century before they were driven out by another clan of the Basigi who still occupy the western part (Kagarama) of the lake catchment. The 61km² lake is surrounded by the beautiful scenery of Kigezi highlands and V-shaped valleys at 2,200m to 2,478m above sea level. However, the lake is located in the most densely populated regions of Africa with over 400 persons per km². The dense population has resulted in the conversion of most wetlands in the region and the hills into intensively cultivated landscapes. Lake Bunyonyi is surrounded by hills that are extensively degraded with agricultural plots and terraces and many tourist establishments on one corner close to Kabale Town. The lake itself has close to 30 islands including the popular Punishment Island. Many wetlands surround the lake, the outstanding being Chevu, Nyombi, Bigyegyey, and Nyamuriro wetlands among others.

Based on the assessment studies conducted by NatureUganda 2019-2020, the benthic macroinvertebrates community of the wetland systems of Lake Bunyonyi and associated wetlands such as Nyamuriro was poor in diversity constituted by Diptera (*Chironomus* sp. and *Chaoborus* sp.) and Oligochaeta indicating poor water quality. The upper catchment of the Lake is occupied by Echuya Forest Reserve (Orugano) and it drains into an expansive wetland called Nyamuriro wetland. Whereas the Echuya Forest is a gazetted reserve, Nyamuriro is not protected but was designated as an Important Bird Area (now Key Biodiversity Area) due to its diversity in bird species especially the globally endangered species of Papyrus Yellow Warbler and the Grey Crowned Crane.

The biodiversity assessment also found many important species of plants and animals including the swamp antelope Sitatunga (*enjobe*) in the Kyevu swamps, the *Zenopus* frogs (*Enkyere*) in all surrounding wetlands and many plants, some of which are not found anywhere else in Uganda.

NatureUganda also conducted an assessment of peat stock of the wetlands in the region. Peat is an accumulation of partially decayed vegetation or organic matter and peat ecosystems are considered the most efficient carbon sinks on the planet. Peat forms in wetland conditions, where flooding or stagnant water obstructs the flow of oxygen from the atmosphere, slowing the rate of decomposition. Peat is harvested as a source of fuel in certain parts of the World. In some sections of wetlands around Lake Bunyonyi, peat depth may reach up to 1000cm deep making these wetlands one of the dense peat stocks in the world with a high potential for protecting the region and the country from adverse Climate Change effects.



There's a lot of human activity on the shores of the lake.

NatureUganda is joining efforts with the Ministry of water and environment and District Local Governments of Rubanda and Kabale and other stakeholders to assess Lake Bunyonyi and surrounding wetlands for potential designation of this lake as a Ramsar site.



Lake Bunyonyi.

However, Lake Bunyonyi is not a protected area, neither a wetland of international importance (Ramsar site). The lake is facing a vast array of threats mainly due to an increase in demand for the limited land resource. Human activities such as conversion to agricultural land, cultivation and siltation, unsustainable harvesting of wetland resources and wolfram mining in case of Nyamuro are threatening the ecological integrity of the lake and the surrounding wetlands. The exposure of peat from the unregulated wetland drainage will increase carbon emission and its potential threat from harvesting it for energy production will exacerbate climate change effects for the country.

Based on the above unique features of Bunyonyi lake and its associated wetlands, there will be need to improve its conservation status. NatureUganda is joining efforts with the Ministry of water and environment and District Local Governments of Rubanda and Kabale and other stakeholders to assess Lake Bunyonyi and surrounding wetlands for potential designation of this lake as a Ramsar site. Similarly, NatureUganda will work with stakeholders to support sustainable utilization of the lake's resources and wetlands through livelihood improvement projects and rehabilitation of upland soils to increase production outside the wetlands.

The 61km² lake is surrounded by the beautiful scenery of Kigezi highlands and V-shaped valleys at 2,200m to 2,478m above sea level. However, the lake is located in the most densely populated regions of Africa with over 400 persons per km². The dense population has resulted in the conversion of most wetlands in the region and the hills into intensively cultivated landscapes.

In addition, NatureUganda will work with stakeholders to provide alternative gains for land users for successful conservation of the ecosystem including exploring potential for payment for ecosystem services in the region as an alternative income generation activity. Whereas the lake belongs to current and future generations, it is however the responsibility of the current generation to bequeath a well-functioning ecological system to the future generations.

By Achilles Byaruhanga

JIMMY MUHEEBWA SCOOPS A SPECIES RECOVERY AWARD.

On 3rd March 2020, Jimmy Muheebwa, the National Coordinator of Crane Project was one of the seven individuals and institutions recognized and awarded for his outstanding efforts to save the Grey Crowned Crane – the national bird for Uganda, during the National celebrations of the World Wildlife Day.

Mr. Muheebwa has worked with NatureUganda for over 20 years and spearheaded the conservation of the Grey Crowned Crane programme in Uganda. Uganda joined the rest of the world to celebrate the United Nations World Wildlife Day in a function that took place at Ssaza grounds, Kisoro Town under the global theme “Sustaining all life on earth” and a national theme “Sustaining Wildlife in Uganda for the benefit of the present and the future generations”.

As part of the activities to commemorate the day, the government of Uganda, through the Ministry of Tourism, Wildlife and Antiquities, recognized persons and institutions that have made unique and significant contributions to the sustainable conservation and development of wildlife resources in Uganda, through the National Conservation Awards Scheme.

A beaming Jimmy attributes this award to his 20 years of dedicated work on securing the plight of the Grey Crowned Cranes”. I would not have done it without support from my organization, the donors, other conservation stakeholders and my family that endures my long absence from home”.

He further contends that there is need for Ugandans to practice sustainable relationships with mother nature. “Nature sustains our lives, we too, should sustain it” Jimmy said.

↪ *Mr. Jimmy Muheebwa (R) flanked by NatureUganda's Executive Director, Mr. Achilles Byaruhanga (L)*



PROJECTS

A total of 168 nests were recorded from 8 locations in the Districts of Amuria and Katakwi.

THE REDISCOVERY OF THE FOX'S WEAVER

Fox's Weaver

UGANDA'S ONLY ENDEMIC BIRD

Last documented in 1996 (Byaruhanga et al 2001) with more than 40 individuals breeding on the fringes of Lake Bisina, the Fox's Weaver (*Ploceus spekeoides*) was not recorded again until in the recent two years when the bird was rediscovered breeding in a different site but still in North-Eastern Uganda.

The range of this bird species, restricted to the north-eastern parts of Uganda, is getting clearer than before with the discovery of new breeding sites in Magoro, Palam and Ngarium in Katakwi, PianUpe Wildlife Reserve, Ongongoja in Kapelebiiong and non-breeding population observed in Iiri Napak area. The expeditions for the species is supported by the GEF Small grants programme and Africa Bird Club (ABC).

Uganda is the birder's paradise, boasting of over 1,060 bird species and is arguably one of the top birding destinations in the World. Among the special birds for Uganda is the Fox's Weaver which is only found in Uganda

and nowhere else in the World. The species is poorly studied and has only been recorded in the seasonally flooded wetlands in Teso Sub-region in the North-Eastern part of Uganda. Previous records were from L.Opeta, L.Kyoga and L.Bisina, where the species preferred Papyrus swamps with nearby trees, but nesting on trees in wetland areas or trees hanging over water. The species mainly breeds during the rainy season in April and August and is suspected to move further field from wetlands during the dry season. The population of the species is largely unknown. The first documented breeding records were on fringes of Lake Bisina in 1996. New records were documented in July 2018 when the

NatureUganda team made a reconnaissance visit to the new sites in Katakwi after a tipoff from bird guides in the region. This was followed by a more extensive survey in the area in August 2019 and February 2020, covering four districts. The extensive search in August 2019 found most of the records of the species on nests, indicating the peak of the breeding season. Apart from the breeding season that is known to occur between May and August, the ecology and behavior of the species has not been well studied and documented. The species is Globally and regionally

Most individuals (50) were recorded in Katakwi, 7 in Napak, 6 in Amuria and 3 in Soroti.

Near Threatened but locally considered to be Endangered (WCS, 2016).

NatureUganda is leading the way in bridging the information and knowledge gap with regard to the ecology and behavior of the species. Working with partners such as the Uganda Bird Guides Club (UBGC) and Local guides in the area, NU has carried out a total of four surveys (only three found records), to estimate the population of the species, map its distribution and document the habitat ecology of the bird especially its breeding ecology, with only one survey done outside the breeding season in February 2020.

In 2016, NatureUganda, with funding from the Africa Bird Club, conducted a survey to assess the presence of the Fox's Weaver in its historically known sites around L.Opeteta, L.Bisina and L. Kyoga. For more than 10 years, this Bird had not been recorded by the NatureUganda bird monitoring team nor by the Uganda Bird Guides Club members during their tourist visits to these sites. All the three visits conducted in the sites yielded no record of the Fox's Weaver, making a conclusion of a possible extinction of the species in the known sites. The Survey in August 2019 was conducted by four teams comprising of technical team from NatureUganda and volunteers from UBGC. The survey was timed to coincide with the known peak breeding season of the species. Sites surveyed covered districts of Kumi, Teso,

Katakwi and Napak. There were two teams; the "Magoro team" and the "Katakwi team", a separate "Kumi team" which surveyed Kumi and Soroti districts, and the "Iriru team" which surveyed sites in Iriru, Napak district. From this survey, the Fox's Weaver was recorded in three of the four districts surveyed.

Only the team in Kumi did not record the species in the sites surveyed in Kumi and Soroti districts. Findings from the survey showed that, the Fox's Weaver inhabits wooded grasslands dominated by *Vachelia drepanolobium* commonly known as the Whistling-thorn Acacia. This acacia species was the favored nesting and feeding tree by the species. Magoro and Ngarium had the highest number of individuals and it is not uncommon to see bird nests or even individuals flying across the roads or perched just a few meters off the road in this area. A total of 66 individuals of Fox's Weaver were recorded from the August survey. Most individuals (50) were recorded in Katakwi, 7 in Napak, 6 in Amuria and 3 in Soroti. A total of 168 nests were recorded from 8 locations in the Districts of Amuria and Katakwi.

The survey in February 2020 was timed to coincide with the non-breeding season of the Weaver. Three districts of Katakwi, Amuria and Napak were surveyed by the three survey teams being the sites where the Weaver was recorded breeding in August 2019. A total of 10 individuals of the Weaver were recorded mainly in Magoro and Iriru sites. The lack of records from some of the sites in February may be a link to the theory that this species migrates away from its breeding sites during the non-breeding season.

These two surveys in North-eastern Uganda seem to suggest that Magoro, and Ngarium in Katakwi Pian-Upe Wildlife Reserve and Ongongoja are important habitats for the Fox's Weaver especially during the breeding season. More surveys are planned to clearly understand the ecology of the Fox's Weaver during the breeding and non-breeding to unravel the mystery of Uganda's only endemic bird species.

By Jonathan Onongo, Achilles Byaruhanga and Diana Nalwanga

LAKE BUNYONYI'S TOURISM POTENTIAL

BIODIVERSITY ASSESSMENTS SHOW THAT LAKE BUNYONYI AND ASSOCIATED WETLANDS HAVE GREAT TOURISM POTENTIAL

Through a project on “Securing Wetland Ecosystems to improve livelihoods through Community Conservation Agreements in western Uganda”, NatureUganda commissioned a biodiversity study of three wetlands of Lake Nyamuriro, Kiruruma and Lake Bunyonyi. The results indicate that the Lake Bunyonyi and its associated systems are wetlands of international importance. The wetlands contain globally threatened species of birds such as Grey Crowned Cranes, Papyrus Yellow Warblers and many other ecosystem endemic species.

The wetlands contain red listed amphibians, small mammals, insects and plants. In addition to the biodiversity assessments, the project also conducted a study on peat stocks to understand the role of wetlands in mitigating climate change and an assessment on upland carbon stocks to understand the needs to improve agricultural productivity in Kigezi hills.

The project goal is to conserve the lake and its associated wetlands for perpetual ecosystem service provision to the communities in the catchment and to conserve threatened species contained within these wetlands. The assessments of biodiversity, Ecosystem services and Peat stock in these wetlands were conducted to provide a baseline against which project interventions towards biodiversity conservation, livelihood support to communities and mitigation of the effects of climate change can be evaluated. The assessments will also support NatureUganda and its stakeholders in undertaking the profiling of Lake Bunyo-



Lake Bunyonyi



Birds' survey team, walking along Nyamuriro transect

nyi for potential designation as a Ramsar site, a wetland of international importance. The data and information resulting from the studies clearly show that Lake Bunyonyi should be listed among the most important ecosystems in the world.

Based on the criteria of detectability, indicative of ecosystem functioning and ability to function as indicators, NatureUganda selected six taxa (groups of animals and plants) to be assessed, namely Plants, Birds, Mammals, Amphibia & Reptiles, Insects and Fish. These assessments were conducted between November 2019 and March 2020 by independent consultants and renowned scientists using international standard assessment protocols.

Below is a summary of results from the studies.

PLANTS

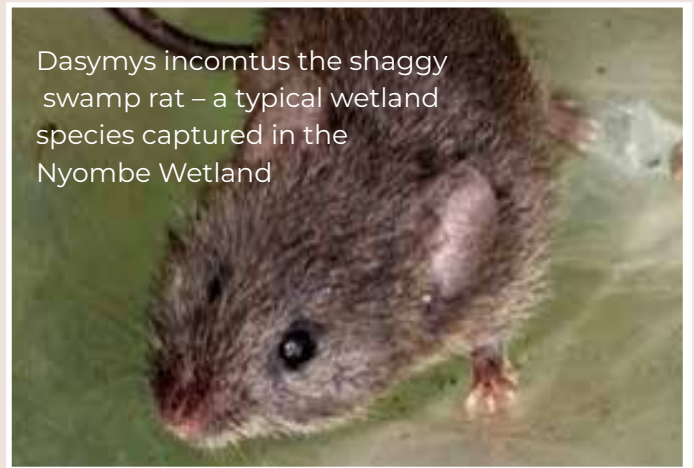
The Flora assessment was led by Dr. Mary Namaganda and 312 plant species belonging to 75 families were recorded, of which none is globally red-listed. However, one species of national conservation importance was recorded (Water lily *Nymphaea nouchali*). The highest number of species was recorded from Nyamuriro swamp followed by Lake Bunyonyi areas. However, there is evidence that 10 aquatic species recorded in the last 2 decades on Lake Bunyonyi were not encountered in this survey.



Eulophia horsfalli, one of the Orchids recorded around Lake Bunyonyi

MAMMALS

The mammal assessment was led by Dr Robert Kityo and 21 species of small mammals were recorded, with three species (Kahuzi Swamp Shrew *Crocidura stenocephala*, Tarella Shrew *Crocidura tarella* and Montane Shaggy *Dasymys montanus*) being listed as globally endangered. Additionally, five species are nationally red-listed. The swamps around Lake Bunyonyi had the highest species records and the lowest were Kiruruma and Nyombe swamps.



Dasymys incomtus the shaggy swamp rat – a typical wetland species captured in the Nyombe Wetland

INSECTS

The entomological assessment was led by Dr. Perpetra Akite and 37 species of butterflies and 19 species of dragonflies were recorded. The area around Nyombe swamp was the richest both in terms of butterflies and dragonflies. The least number of records was Kiruruma for butterflies and Mujja hill for dragon flies. No species of global conservation concern was recorded both for butterflies and dragonflies.

However, six species of butterfly species are nationally red-listed. There was also one species of butterfly (*Aloeides* sp) that was recorded for the first time in Uganda. In addition, one species (*Harpencyreus reginaldi*) of Albertine endemism was recorded and rated vulnerable on the Ugandan red- list.



Dragon flies

BIRDS

The birds' assessment was led by Dr Dianah Nalwanga and 130 bird species were recorded, of which two are globally red-listed as endangered (Grey crowned Crane *Balearica regulorum* and Papyrus Yellow Warbler *Calamonastides gracilirostris*) and nineteen are nationally and regionally threatened. Six indicator species were selected to support long term monitoring of the wetlands, namely; Grey Crowned Crane, Papyrus Yellow Warbler, Blue-Headed Coucal, Carruther's Cisticola, Greater Swamp Warbler and Lesser Swamp Warbler; these were recorded in most swamps and considered sensitive to changes in the wetland ecosystem.



Grey Crowned Cranes, one of the common endangered species in the project area

AMPHIBIANS AND REPTILES

The Herpetological assessment was led by Dr Mathias Behangana and 21 species of amphibian were recorded, of which, one species (*Leptopelis Kivuensis*-Kisenyi forest tree frog) is being rated near threatened globally and vulnerable in Uganda. *Arixalus fulvovittatus* (Lake Bunyonyi River Frog) was the other nationally red-listed species.

The area around Nyombe swamp had the highest number of frog species probably because it still has original habitat, the least was Kiruruma swamp which is completely converted to agricultural land and farms. Besides amphibians, eight species and 36 individuals of reptiles were recorded, with two nationally red-listed species recorded; *Trioceros Johnstoni* (Ruwenzori Three-horned Chameleon) and *Deberria Lutrix* (Slug Eater).



Ruwenzori Three-horned Chameleon, one of the Albertine endemic species recorded at Nyamuriro wetland

The different studies observed that the wetlands faced tremendous threats. Major sections of the wetlands in all surveyed areas have been converted into agricultural land and cattle farms. The teams recorded and observed heavy use of herbicides and pesticides in the cultivated areas which is detrimental to biodiversity especially the insect fauna which conversely is critical to the productivity of crops. There was also evidence of some birds and other wildlife being hunted for food and in some cases wildlife trade was reported.

Based on the numbers of species recorded, Lake Bunyonyi and associated wetlands are critical sites for biodiversity conservation and ecosystem services provision for Kabale, Kisoro and Rubanda districts. However, there is urgent need for restoration of the wetlands systems and the catchment to maintain ecological balance and land productivity. Water and soil conservation measures including agroforestry, terracing, restoration and protection and other soil conservation Innovations should be considered to protect land where communities depend for food and income, protect the species in the remaining wetlands and revive ecological integrity of the area.

That said, there will be need to develop innovative financing mechanisms such as tourism and payment for ecosystem services to promote local economies and incomes and provide incentives for residents to protect the wetland ecosystems.

By Micheal Kibuule

Big Birding Day 2019; a new 24 hour Birding Record set

**A total of 746
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Every year since 2004, NatureUganda organizes Uganda's biggest birding day called Big Birding Day (BBD) a bird watching race in which teams of birders compete to record the highest number of species in one day (24 hours). Last year 2019, 31 birding teams visited 28 birding sites all over the country including 9 National Parks, 3 Central Forest Reserves and 4 community conserved areas among other sites.

The 11th Annual Bird watching race was organized in partnership with Uganda Tourism Board and Uganda Wildlife Authority under the theme "Connecting Birds to People and Nature". The BBD is an initiative that combines avian conservation with awareness and tourism development so as to promote Uganda as a global birding destination.

A total of 746 bird species, which is over 70% of Uganda's recorded bird species were recorded. Since the first BBD in 2004, the number of species recorded during this 24-hour event has continued to rise steadily and has almost doubled from only 386 species in 2009 to 746 species in 2019. Most of the species recorded were resident birds, but 62 Palearctic bird species and 13 Afro-Tropical migrants were also recorded. Among the species recorded included 25 Globally threatened species including all the four Critically Endangered species for Uganda (Hooded Vulture, White-headed Vulture, Rüppell's Vulture and White-backed Vulture). The Common Bulbul was the commonest species and it was recorded by 24 out of the 31 teams.

The highest number of species was recorded from National Parks as follows; Queen Elizabeth Conservation Area recorded the highest number of species 313, followed by Mt. Elgon Conservation Area 308, and Kidepo Valley Conservation Area 245. Among the Community Conserved Areas and Privately owned areas, the team from Sunbird Hill, emerged the best recording a total of 187 species. Other best performing teams were Lutembe Ramsar site team who recorded 149 and the Kasohya-Kitomi Forest team who recorded 125 species.

Join us this year for yet another edition of the Big Birding Day on the 7th November, 2020 as we aim to hit '1000 species world record in 24 hours'



UNUSUAL SIGHTINGS

A Morning Birds Meeting in Kikaaya, Kampala There was quite some activity in the light morning rain on 20th April, 2020, 8:20, with a number of birds chattering in a Sapium tree. I couldn't see that there were any swarms of insects but maybe there were and that my attention was only drawn to the birds.

The most notable was the 12 Drongos seemingly happily chattering and pairs

chasing each other around from the Sapium to two Fig trees nearby. Other species in the tree were African Thrush (3), Common Bulbul (3), Black-headed Weaver (many), African Firefinch, Great White Egret (flew by), Open Billed stock (perched in one of the fig trees), Grey-backed Camaroptera, African Paradise-Flycatcher, Woodland Kingfisher, Brown Parrot (2) and White-browed Robin chat (This one is still around).

All activity was at my place in Kikaaya where I previously had Night herons about a month ago. The party seemed to me like a morning meeting for birds.

By Dr. Robert Kityo
Makerere University

Promoting Citizen Science through Bird Population Monitoring Programme

The year 2020 marks 11 years since the start of the Bird Population Monitoring programme (Common Bird Monitoring Scheme) in Uganda. The Bird Population Monitoring (BPM) Programme is an international programme aimed at monitoring trends in the population of common and widespread bird species in the world. To date the Programme has recorded, 313,355 individuals of 873 bird species from 122 sites across the country.

Every year since 2009, over 100 volunteers join NatureUganda in the Common Bird Monitoring Surveys that are conducted twice every year in January and July using predetermined transects. All the bird's species seen along the transects are counted and recorded at all site. All data collected is entered into the International Common Birds monitoring Database. A total of 45 sites were surveyed during the January 2020 Bird Population Monitoring Programme giving a total of 9,689 individual birds from 319 species recorded between December 2019 and February 2020.

This survey is one of the two longtime volunteer bird Monitoring programmes for NatureUganda alongside African waterbird census and is an outstanding example of Citizen Science. Citizen Science in simple terms means the contribution to scientific data by the non-specialist citizens of a country.

This implies that even nonprofessionals can contribute to this bird monitoring programme. All you need is to have the passion to learn birds, start to know the common birds in your area and consistently monitor those birds in a selected site of your choice on a voluntary basis and send the data to NatureUganda for vetting and inclusion into the designated database.

Relevance of this data

This data contributes to the national biodiversity monitoring for the country and informs wildlife and habitat management decisions especially where there are no funds to support extensive surveys. Data is used in the detection of threats to some sites and or species especially those depending on farmlands and pristine habitats.

How you can participate

You can join the team of volunteers and contribute towards this Citizen Science programme by setting up a transect which you will monitor twice a year using standard simple methods and share the data with NatureUganda. The site should be one which you can easily monitor without incurring prohibitive costs.

This can be a site near your office or home. Contact NatureUganda on info@natureuganda.org for details on how you can setup a site and participate in the monitoring of birds near you.

OPENING OUR EYES TO ALOES OF UGANDA:

Book review; **ALOES OF UGANDA by Thomas Cole and Tom Forrest**

(Available from Aristock bookshops at 50,000/-).

By Cathy Watson

Aloes are a vital part of the environment. They act as nurses or protectors for other plants, provide nectar for hundreds of species of insects and birds, widely known for medicinal values and can also be used to restore degraded land. It is exciting therefore to welcome a book about Aloes of Uganda. These are plants we need to know more about.

In her foreword, the late Minister Maria Mutagamba says the Aloes of Uganda is not only the first book about aloes in the country but one of the first books “on our wild flora based on sustained fieldwork to be published in many years”. To gather the photos and text, the authors travelled to all four corners of Uganda – from Mt Morungole to Mt Kei to Tororo and to the southwest, which is home to the only aloes in Uganda that are trees. The authors are Thomas Cole, who worked as a Program and Country Director for Save the Children from 2005 to 2009 and continues to return to Uganda, and Tom Forrest, a long time Uganda resident, who has established a botanical garden at his Kampala home with hundreds of species of native plants.

Although all types of aloes were known to the inhabitants of the areas in which they grow, botanists knew of 16 when Cole and Forest began their work in 2005. The two plant enthusiasts were able to identify three new species and one new subspecies. One is called Aloe wanalensis after Wanale, the spur of Mt Elgon that looms over Mbale. Another is Aloe butiabana, found from the shores of Lake Albert up to Murchison Falls, while a third is Aloe lukeana, named after Thomas’ brother Luke Cole. Luke Cole was a renowned environmental justice lawyer who died in 2009 aged 46 in a road accident

in Queen Elizabeth National Park. In the new Aloes of Uganda book the Cole and Forrest also describe a new subspecies of aloe labworana. The two authors have also identified three other aloe species from neighboring countries that are found to be growing in Uganda, thereby expanding their reach to the Pearl of Africa.

Citing the work of Makerere ethnobotanist Savina Asiimwe and other scholars, Cole and Forest write that “there is a growing body of literature pointing to aloe as the most widespread and best known medicinal herb used throughout Uganda. They also cite researchers who identified in aloes a compound active against the malaria plasmodium. Across Uganda, the sap and infusions to the plant are also used to treat skin and mouth ulcers, fever and headaches, among other ailments and symptoms in humans, as well as poultry and livestock diseases. Three types of aloe are endangered.

“The leading medicinal aloe in Buganda – aloe dawei-- has virtually disappeared from around the shores of Lake Victoria where it was once abundant,” write the authors. “Fortunately, it is often cultivated in home gardens for medicinal purposes and used as a hedge.” With many photos taken from mountains, the book contains many striking and rarely captured views, including one from Lamwo towards Agoro Hills and another from Labwor Hill. Pictures also show that one of the prettiest and most delicate aloes – purple rather than orange red – grows around Mbarara.

But aloes are far more than pretty. In case you think that Cole and Forrest are biased, South African scientists Stephen Cousins and E Witkowski point out that in certain ecosystems aloes are the primary colonizers, moderating harsh environments and helping other less resilient species. In degraded rangelands, areas near aloes had better litter cover, soil seed banks and soil water retention. And aloes’ dense, spreading, mat-like roots make them suitable for stabilizing soil.

This book will have a useful place in libraries used by professionals and students of forestry, agriculture, environmental science and in environment policy development and implementation.

Cathy Watson is Chief of Programme Development at the World Agroforestry Centre in Nairobi.



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For more information, Contact

NatureUganda | Plot 1, Katalima Crescent, Lower Naguru | PO Box 27034 Kampala
Tel: + 256 414540719 | Fax +256414533528 | info@natureuganda.org | www.natureuganda.org

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