



AIRPORT BIRD HAZARD AND WILDLIFE MANAGEMENT

**ENTEBBE INTERNATIONAL
AIRPORT -UGANDA**

July 2022



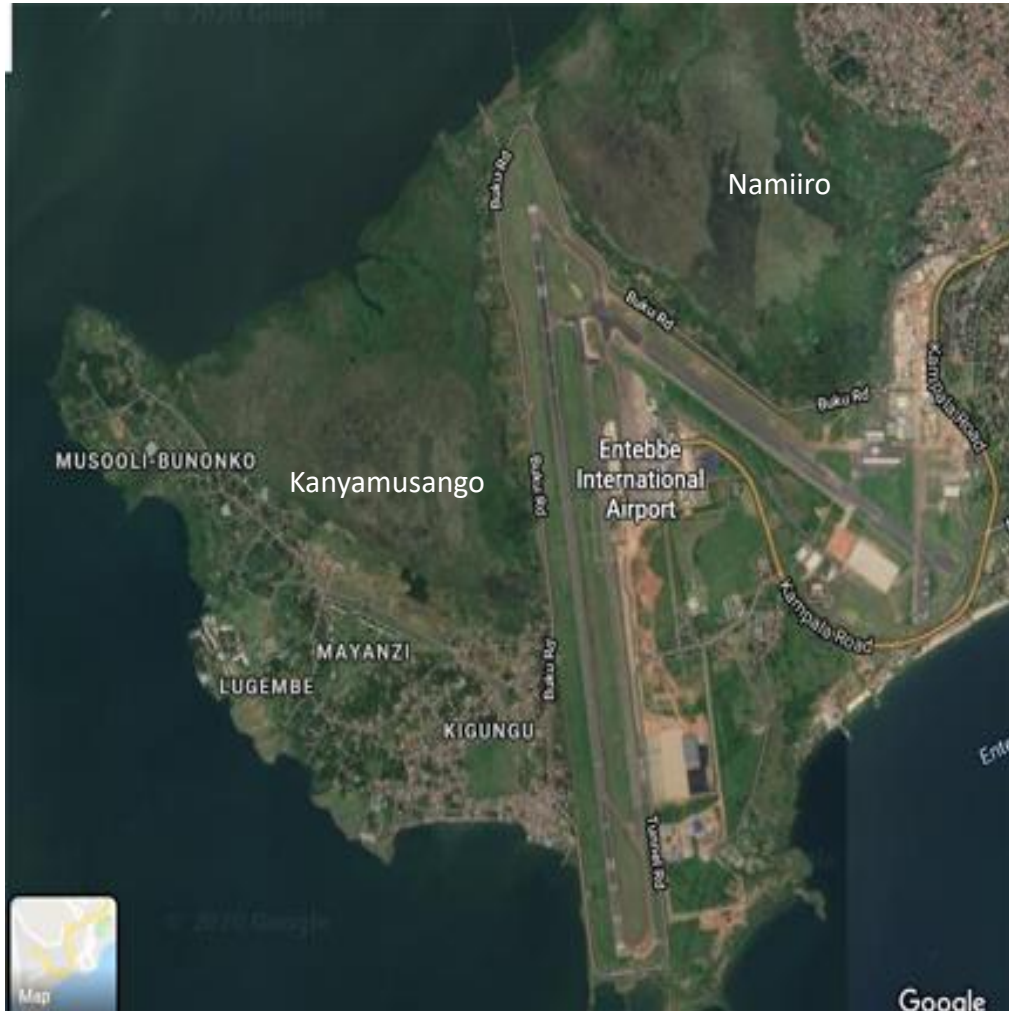


Topics

- Background
- Wildlife hazard management program
- Challenges
- Way Forward



BACKGROUND



Entebbe

- Peninsula on Lake Victoria – largest fresh water lake
- Surrounded by 2 large swamps Kanyamusango and Namiiro.
- Islands e.g. ifo, Jaana, Bulago etc, - habitats.
- Lies between 2 designated Important Bird Areas (IBAs) -Lutembe and Mabamba bays which are also 2 of Uganda's Ramsar Sites.



- Migratory path of birds – Twice a year Entebbe receives visiting species.
- On the equator – 2 rainy seasons, Soils are fertile, temperatures favourable, adorned with large trees providing favourable roosting and breeding grounds.
- Gazetted Wildlife Sanctuary in 1951.
- Uganda is endowed with over 1,064 different bird species.

Some of the bird species at EIA and its surroundings



Black Kite
Milvus migrans



Cattle Egret
Bubulcus ibis



Gulls and Terns



Barn Swallow
Hirundo rustica



Hadada Ibis
Bostrychia hagedash



Wildlife Hazard Management Program - EIA

- An environmental/ ecological study was carried out at the initiation of the Bird hazard and Wildlife Control (BHW/C) Section.
- The 24-hr BHW/C section guided by ICAO Documents, UCAA regulations and other Good industrial practices and ongoing research.





Environmental /Habitat management.

- Effective long-term measures.
- Main Attractions:
 - Food
 - Water
 - secure shelter
 - Breeding grounds.
- The section engages in monitoring of wildlife attractants such as water ponds.

Before:

In 2020, Water ponds were created due to dumping of debris from construction works near Apron 4, attracting flocks of Egyptian Geese.



After:

In 2020, covering up of the water ponds, awaiting growth of grass led to a marked reduction in Egyptian Geese visiting the same spot.





- **Grass management** – Currently grass height is recommended at 30cm. The section monitors that this grass is left at that height.
- **Waste management:** BHWC section engages in monitoring of waste in and around the airfield to discourage bird accessibility to food.
 - Main waste dumpsite is about 13km away – as recommended by ICAO.
- **Termite mound (Anthill) Management:** This is intended to discourage wildlife perching on mounds and feeding on termite *alates*. This method has been very effective in discouraging some species like the African fish Eagle which is territorial and fond of perching.

Wildlife Dispersal

- **The section has 2 bird scare vehicles.**
 - Runway sweeps/inspections are carried out about 10mins before landings and takeoffs:
 - ATC is also given Real Time conditions of the Runway in order to advise operators accordingly.
- **Use of bird scare pistols to disperse birds from the movement areas.**
- **Foot-patrolling:**
 - Offers the best dispersal method because it offers real danger to wildlife. We use catapults and clappers in the process.





Wildlife dispersal ..continued

- **Laser bird repellent system:**
 - Visual repellent



- **Distress calls:** Sound recorded when birds are in danger. The idea is to warn others of danger.



Community based activities.

- Discouragement of feeding grounds near the airport.
- Understanding of roosting and breeding behavior of species around the airport.
- Audits/ sensitization of communities surrounding the airport.





INSTITUTIONAL ARRANGEMENTS

- UCAA works with other institutions for proper management of wildlife.
 - There is an Airport Bird hazard and Wildlife Control committee composed of the following members.
 - General Manager – chair
 - Air Traffic Control
 - Airlines BAR/AOC
 - Ground Handlers
 - Airport Operations, SMS, MAM, MAEPD etc
 - Ministry of Agriculture, Animal Industry and Fisheries
 - Uganda Wildlife Authority
 - Entebbe Municipal Council
 - Local Council leaders
 - Aviation Police
 - Uganda People's Defense AirForces, etc
 - A National Committee on Wildlife hazard management is in the process of being formulated to further improve EIA's wildlife hazard management program.



- UCAA is a member of NatureUganda – An affiliate of Bird life international.
- UCAA is in the process of getting MOUs with some relevant bodies

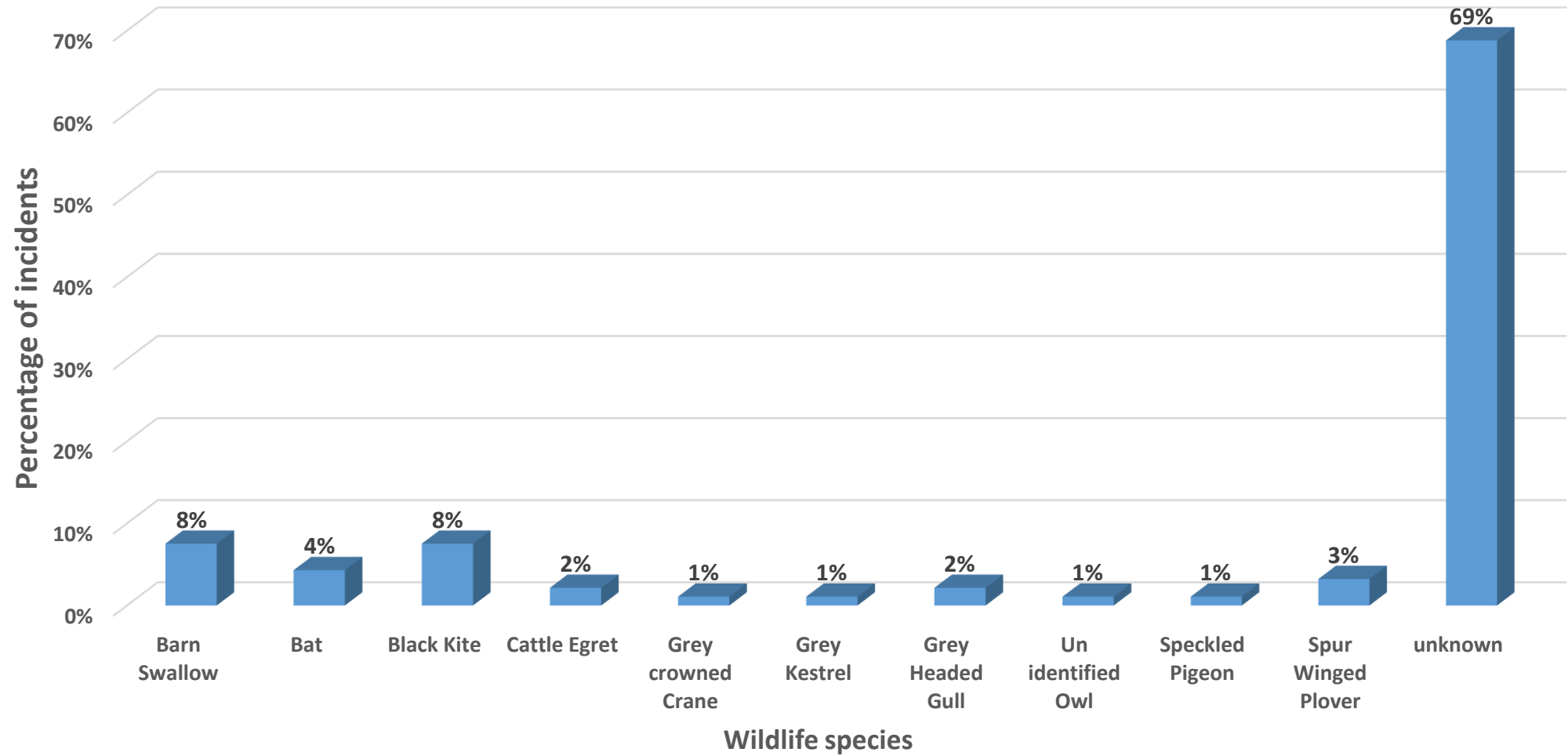


Data management and Continuous research



- The Section engages in data collection, analysis and interpretation to improve the methods of wildlife hazard management.
 - Wildlife strikes.
 - Wildlife activity.
 - Habitat management.

Wildlife species involved in collisions with Aircraft - January to December 2021





Annual Lake Victoria surveillance





Major Challenges

- Replenishing of materials such as Pyrotechnics can be challenging because of restrictions on importation of ammunition.
- The issue of unknown species being hit on approach of aircraft.
- Climate change - changes in wildlife ecology.
 - We have observed changes in patterns of migrating species. Some species are not returning to their homes.
- Developments around the peninsula that attract wildlife.

Way Forward

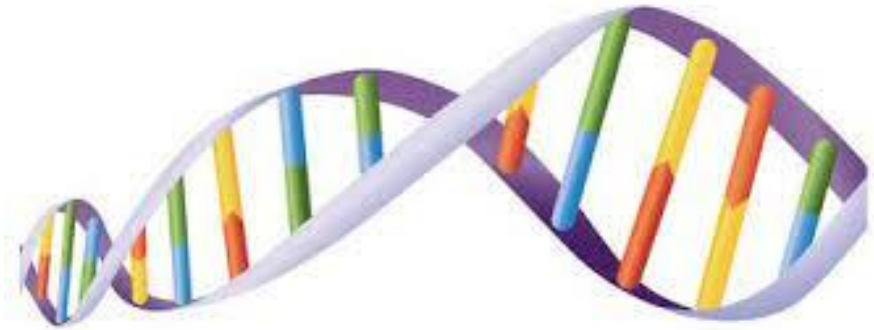
- The section is planning to carry out another ecological study to inform the current Wildlife hazard management plan.
 - Ecology: Relationship between organisms and their environment



- The section closely monitors developments near the airport that are likely to attract wildlife and the issues are addressed at ABHWCC level.

DNA analysis

UCAA working with NAGRC Genetics Lab – identification of species through DNA analysis by collection of blood stains and other crashed bird tissue from aircraft parts.



- Identification of species is the key to understanding why these species are there.
- Contribution towards location of the incidents
- Guide to habitat management



Thank you

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