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# STATE OF WILDLIFE RESOURCES IN UGANDA

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2026





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# FOREWORD



Uganda is globally recognised for its extraordinary natural heritage hosting an exceptional diversity of life, ranging from iconic mammals such as elephants, mountain gorillas, lions, and giraffes, to an immense variety of plants, fungi, insects, amphibians, reptiles, and birds.

Our country's wildlife resources constitute the strategic foundation of the country's natural capital, supporting ecological stability, economic development, and social prosperity. Apart from sustaining tourism, rural livelihoods and regulation of climate, water systems, and other key ecosystem services, wildlife and the landscapes that sustain it form the bedrock of Uganda's current and future development.

The State of Wildlife Resources Report in Uganda 2026, highlights wildlife recoveries over the years for many wildlife species. Despite the positive progress registered in the recovery of selected large mammal populations, Uganda's wildlife is still under enormous rising pressure from human activities. Habitat loss and fragmentation,

illegal wildlife use, invasive alien and problematic native plant species proliferation, climate-induced extremes, and increasing human-wildlife conflict have continued to pose serious challenges to wildlife conservation and ecosystem integrity. These pressures may harm not just wildlife, but also tourism income, food security, community livelihoods, and the long-term national economic resilience.

The results underline a clear policy need. The conservation of wildlife should be integral to national planning, investment, and be prioritised in the national development agenda. Protecting wildlife resources is integral to meeting Uganda's commitments under the National Development Plan IV, Vision 2040, measures for climate adaptation, and international commitments like the Convention on Biological Diversity. Nowadays, a transition toward nature-positive development pathways that balance economic growth with ecological sustainability is no longer optional, but essential. Wildlife protection is an investment in national prosperity, climate resilience, and inter-generational equity.

This report thus calls for bold-footed action to reinforce governance, increase the level of conservation financing, scale up technology-enhanced monitoring and enforcement, restore degraded habitats, enhance community engagement and benefit sharing.

I call upon policymakers, development partners, the private sector, local communities, academic institutions, researchers as well as all other stakeholders to leverage the evidence and recommendations of this report to shape policy, investment, and drive shared responsibility for Uganda's wildlife heritage.

**HON. TOM R. BUTIME (MP),**  
MINISTER FOR TOURISM, WILDLIFE AND ANTIQUITIES



# MESSAGE FROM THE CHAIRMAN, BOARD OF TRUSTEES



The State of Wildlife Resources Report in Uganda 2026 presents a credible current assessment of the status and future trajectory of Uganda's Wildlife resources. As the Board of Trustees of the Uganda wildlife Authority (UWA), we regard this report as a critical instrument for oversight, accountability, and strategic guidance in the stewardship of Uganda's wildlife resources.

I commend the UWA management, together with our partners, for producing a transparent and evidence-based report that clearly highlights both achievements, data and information gaps and the persistent challenges.

The recovery of some populations demonstrates tangible returns on investment in wildlife management. At the same time, the report makes it clear that these gains remain fragile. Habitat loss and fragmentation, invasive alien and problematic native plant species spread, illegal and unsustainable wildlife utilisation and trade, climate variability, human-wildlife conflict, growing competition for land and natural resources continue to exert pressure on wildlife within and beyond the Protected Areas. Addressing these pressures demands

sustained vigilance, adaptive management, and long-term strategic planning and investments.

The report reaffirms that effective wildlife conservation goes beyond field operations. It requires strong institutional leadership, sound policy frameworks, predictable and adequate financing, skilled human resources, and coordinated action among government institutions, communities, development partners, the private sector and other stakeholders. The Board therefore views this report not merely as a status update, but as a strategic reference to guide and inform institutional priorities, investment decisions, and strengthened targeted monitoring of wildlife.

The report further underscores the importance of modernising wildlife monitoring systems, strengthening data integration, and diversifying conservation financing to enhance resilience to emerging threats. Equally critical is closer collaboration of all the wildlife frontline protectors, communities, and private sector landscape. It is also essential that ecological connectivity and long-term sustainability are considered as key cornerstones in the planning of wildlife conservation.

I would like to reaffirm the commitment of the Board of Trustees to provide strategic oversight and guidance to ensure UWA's effectiveness towards delivery and fulfilment of its mandate in accordance with national laws and international obligations. Safeguarding Uganda's wildlife is a shared responsibility and remains fundamental to national development, ecological stability, and the well-being of present and future generations. I encourage all stakeholders to embrace the recommendations of this report and engage and participate in translating them into collective action.

*Conserving for Generations*

A handwritten signature in blue ink, appearing to read 'Prof. Kalema', with a long horizontal flourish extending to the right.

**PROF. JAMES KALEMA**  
CHAIRMAN BOARD OF TRUSTEES





# MESSAGE FROM THE EXECUTIVE DIRECTOR



This State of Wildlife Resources Report 2026, has been compiled in support of evidence-based national accounting of the wildlife capital of Uganda for informed planning, investment, and policy. It also indicates the Government's ongoing embrace of wildlife conservation as a key element of sustainable development and inter-generational equity. One of the most significant advancements in this edition of the report is its expanded ecological scope. By incorporating data on plants, fungi, invertebrates, amphibians, reptiles, birds, bats and other small mammals alongside traditional large-mammal monitoring; the report presents a more holistic picture of Uganda's wildlife resources.

This broader perspective enables a better understanding of ecosystem dynamics and strengthens our capacity to identify emerging conservation risks before they become irreversible.

The report notes significant accomplishments resulting from long-

term national resources for wildlife defence, monitoring, and management. Some wildlife populations such as the kob, impala, buffalo, zebra, eland, topi, giraffe, waterbuck, hartebeests, hippopotamus, and southern white rhinoceros remain on a positive population trend in significant conservation zones. The advances are indicative of enhanced patrol, species recovery, and restocking provision plans, ranger presence, community cooperation, and increasing use of technology-supported monitoring tools to help monitor animals and people, including SMART, EarthRanger software, aerial surveys, camera traps, and species databases. Human-wildlife conflict mitigation approaches and benefit sharing projects have additionally contributed to coexistence in those high-pressure settings.

At the same time, the report notes which species and landscapes need to be reinvigorated. Meanwhile, populations of elephants, lions, leopards, ostrich, bushbucks and oribi in certain areas have had delayed recovery or regional declines. EarthRanger data for elephants show a wide spread in transboundary movements into neighbouring countries due to natural migratory behaviour and landscape-level ecological dynamics. These movements inform when animals are found in surveys and why regional cooperation matters.

For other species, barriers related to habitat quality, prey abundance, and inter-human-animal interactions continue to be critical to designing management intervention responses.

Land-use transformation and agricultural growth, plantation and commercial developments, construction, industrialisation, reclamation, extraction, climate change, and native problem and invasive plant species colonisation are changing and altering the patterns of movement of wildlife, foraging range and behaviour.





In savannah ecosystems, invasive alien and problematic native plant species have diminished the quality of forage, decreased visibility, and made wildlife monitoring difficult for some species in areas where aerial surveys have been implemented.

UWA, following suit, is enhancing integration of monitoring mechanisms, scaling progress on ground-based and technology-assisted surveys, improving habitat restoration and invasive alien and problematic native plant species management, and enhancing data integration across institutions to incrementally close knowledge gaps, especially for the neglected under-studied taxa and wildlife in non-Protected Areas.

We appreciate the invaluable contributions of all conservation partners who provided data and information, making this report comprehensive and inclusive. Together, we can uphold wildlife protection as a cornerstone of national development and community inclusiveness, especially during times of change. This joint commitment will help preserve Uganda's ecosystems for the prosperity of current and future generations, reflecting a vision where conservation and

development go hand in hand for the benefit of all.

This report serves not only as a thorough assessment of wildlife trends in Uganda but also as a strategic guide for conservation action. Protecting Uganda's wildlife heritage is a shared responsibility, and Uganda Wildlife Authority (UWA) is fully committed to collaborating with government agencies, local communities, conservation partners, and the private sector to safeguard wildlife both inside and outside Protected Areas.

Uganda Wildlife Authority (UWA) recognises the vital role that wildlife plays in sustainable national development and pledges to ensure that conservation efforts continue to support Uganda's ecological, economic, and social well-being.

*Conserving for generations*

**DR. JAMES MUSINGUZI, PhD**  
EXECUTIVE DIRECTOR, UWA





# ACKNOWLEDGEMENT

Uganda Wildlife Authority (UWA) is happy to unveil the State of Wildlife Resources in Uganda 2026 following the previous report which was published in 2021. This report is a result of joint efforts contributed by individuals within and outside UWA, and partner institutions and stakeholders.

The Authority therefore expresses its gratitude to the precious contributions of our conservation and research partners who supplied relevant data through technical reports, and provided expert knowledge that was key in ensuring the quality and depth of this report. In a special way UWA would like to appreciate the following people whose contributions enriched this report; Prof James Kalema, Dr. Mathias Behangana, Dr. Robert Kityo, Benard Matovu, Stephen Kigoolo, Dr. Mary Namaganda, Dr. Samuel Ojelel, Dr. Perpetra Akite, Esther Toloa, Dr. Adalbert Aine-omucunguzi, Edward Ssenyonjo, Micheal Kibuule, Dr. Perpetua Ipulet, Dr Samuel Ayebale, Stuart Nixon, Naomie Mathews, Isoke Sam, Abraham Wayirawo, Ivan Kaddu, Emmy Mukasa, Lenni Wor, Joseph Arinaitwe, Fredrick Wanyama, Thomas Pride Wanambwa, Badru Mugerwa, Emmanuel Akampurira, Irene Natukunda, Jude Thaddeaus Onguti, and all conservation partners that contributed data and information presented in this report.

Management also thanks the departments and individuals within UWA that provided data, and constant support throughout this preparation of the report. In particular, Management acknowledges the Division of Research and Ecological Monitoring under the leadership of Assistant Commissioner Dr. Caroline Asiiimwe for orchestrating, consolidating, and collating the diverse datasets and analysing them to generate the report that formed the basis of UWA Management and Board discussions and inputs. UWA Management further appreciates the guidance from the Board of Trustees in improving and providing final input to this report.

The combined efforts that have resulted into the finalisation of this report are a testament to the power of collaboration and unity, without which this report would not have made it to this state. To all, we are truly grateful.





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# Executive Summary

Uganda's wildlife resources are a key pillar of the country's natural capital, enabling Wildlife conservation, tourism, rural livelihoods, ecosystem services, and national progress. Wildlife significantly supports the economy through tourism, underpins important ecological functions like water regulation and climate resilience, and undergirds cultural and social values for communities nationwide. At a time when Uganda is threatened by rapid population increase, land-use change, climate variability, and competing development concerns, the State of Wildlife Resources in Uganda Report 2026 adopts a comprehensive, evidence-based approach to analyse and assess the status, trends, pressures, and management responses facing Wildlife inside and beyond gazetted Protected Areas.

As evidenced by the assessment, Uganda made significant gains in conservation over the past decade. Several medium and large-mammal populations, such as buffalo, zebra, hippos, eland, kob, impala, and white rhinoceros, have remained stable or increased even in critical conservation landscapes. These positive trends highlight increasingly tight law enforcement, focused species recovery programmes, improved ranger capabilities, and the application of technology-enabled tools to monitor species, including SMART, EarthRanger, camera traps, aerial surveys, and species-specific databases. Investments in intelligence-led patrols and coordinated enforcement efforts have enhanced protection outcomes, while expanded Human-wildlife Conflict (HWC) mitigation measures, including electric fencing, trenches, beehive barriers, rapid response teams, and community wildlife scouts, have reduced conflict incidents in many of these high-risk areas.

The report reaffirms that Uganda's wildlife resources continue to come under pressure, which has been both serious and cumulative. The loss and fragmentation of habitats due to the expansion of agriculture, settlement, infrastructure, and extractive activities are cutting off more space for wildlife to roam and interrupting ecological connectivity. Underpinning this crisis in some ways, climate change is believed to be a major driver that is accelerating pressures through changing rainfall patterns, more severe droughts, floods, wildfires, and changing habitats with negative effects on species distribution, reproduction, and survival. Invasive alien and problematic native plant species are growing in many Protected Areas with resultant degradation of habitat quality, reducing available forage and complicating wildlife monitoring and management interventions.

Illegal wildlife use and wildlife crime continue to be major threats. Although large organised poaching has receded relative to the past three decades, small-scale subsistence poaching, illegal fishing, resource extraction from the forest, and local trade networks continue to put tremendous pressure on wildlife populations, especially at the interface point between Protected Areas and the local ecological environments. Human-wildlife conflict remains a significant challenge, impacting community livelihoods, food security, and safety, and influencing local perspectives on conservation.

The report identifies major gaps in wildlife monitoring and research. Although monitoring data of medium and large mammals in savannah ecosystems are relatively abundant, significant information gaps continue to exist for the under-studied taxa, including plants, fungi, invertebrates, fish, amphibians, reptiles, and small mammals; many of these species have been found to be endemic to the country and yet some are threatened to extinction such as the Cycads, most of which are found outside gazetted Protected Areas. Coverage of monitoring outside of Protected Areas remains limited, although these landscapes are of ecological importance for wildlife movement and connectivity. The patchwork of datasets scattered among institutions hampers integrated analysis, early warning, and long-term trend evaluation. There are still gaps in competency in the areas of advanced ecological analysis, wildlife health surveillance, and sustainable financing that have a bearing on the efficacy and continuity of monitoring schemes.





In general, the State of Wildlife Resources in Uganda Report 2026 calls for a shift towards nature-positive development paths that embed wildlife conservation in Uganda's sustainable development agenda and investment decision-making. Recommendations include strengthening governance and institutional capabilities; stabilising and increasing conservation spending; increasing technology-enhanced monitoring and law enforcement; rehabilitating degraded habitats and controlling invasive alien and problematic native plant species; extending wildlife monitoring to under-studied 'neglected' species and non-Protected Areas; including wildlife health surveillance in a One Health framework; and enhancing community participation, benefit-sharing, and coexistence. Responsible actions on these priorities will guarantee that Uganda's wildlife resources will still deliver ecological, economic, and social benefits to both existing and future generations, and that the country's resilience to environmental change and development challenges will be strengthened.



## Acronyms and Abbreviations

<b>BINP:</b> Bwindi Impenetrable National Park	<b>MFNP:</b> Murchison Falls National Park
<b>CBD:</b> Convention on Biological Diversity	<b>MFPA:</b> Murchison Falls Protected Area
<b>CFR:</b> Central Forest Reserve	<b>MGNP:</b> Mgahinga Gorilla National Park
<b>CFR:</b> Central Forest Reserve	<b>MIST:</b> Management Information Systems
<b>CITES:</b> Convention on International Trade in Endangered Species of Wild Fauna and Flora	<b>MoH:</b> Ministry of Health
<b>CMS:</b> Convention on Migratory Species	<b>MTWA:</b> Ministry of Tourism, Wildlife and Antiquities
<b>CR:</b> Critically Endangered (IUCN threat category)	<b>MWE:</b> Ministry of Water and Environment
<b>CTC:</b> Conservation through Commercialisation	<b>NDF:</b> Non-Detriment Findings
<b>CWMA:</b> Community Wildlife Management Area	<b>NDP IV:</b> National Development Plan IV
<b>DPSIR:</b> Drivers-Pressures-State-Impact-Response Framework	<b>NEMA:</b> National Environment Management Authority
<b>EN:</b> Endangered (IUCN threat category)	<b>NFA:</b> National Forestry Authority
<b>FY:</b> Financial Year	<b>NGO:</b> Non-Governmental Organisation
<b>GD:</b> Game Department	<b>NP:</b> National Park
<b>GIS:</b> Geographic Information System	<b>NT:</b> Near Threatened (IUCN threat category)
<b>GOSG:</b> Giraffe and Okapi Specialist Group	<b>PA:</b> Protected Area
<b>GVTC:</b> Greater Virunga Transboundary Collaboration	<b>PASA:</b> Protected Area System Assessment
<b>HUGO:</b> Human-Wildlife Guardians Organisation	<b>QENP/QEPA:</b> Queen Elizabeth National Park/Queen Elizabeth Protected Area
<b>HWC:</b> Human-Wildlife Conflict	<b>RAPEX:</b> Rationalisation of Government Agencies and Public Expenditure
<b>IAS:</b> Invasive Alien Species	<b>R-EN/R-VU/R-NT:</b> Regionally Endangered/Vulnerable/Near Threatened
<b>IBA:</b> Important Bird Areas	<b>RR:</b> Regional Responsibility
<b>IUCN:</b> International Union for Conservation of Nature	<b>RWNP:</b> Rwenzori Mountains National Park
<b>KTWR:</b> Katonga Wildlife Reserve	<b>SECR:</b> Spatially Explicit Capture-Recapture
<b>KVCA:</b> Kidepo Valley Conservation Area	<b>SMART:</b> Spatial Monitoring and Reporting Tool
<b>KVNP:</b> Kidepo Valley National Park	<b>TVET:</b> Technical and Vocational Education and Training
<b>KVPA:</b> Kidepo Valley Protected Area	<b>UBOS:</b> Uganda Bureau of Statistics
<b>LC:</b> Least Concern (IUCN threat category)	<b>UCN:</b> Uganda Conservation Network
<b>LMNP:</b> Lake Mburo National Park	<b>UNFPA:</b> United Nations Population Fund
<b>LULC:</b> Land Use Land Cover	<b>URA:</b> Uganda Revenue Authority
<b>MAAIF:</b> Ministry of Agriculture, Animal Industry and Fisheries	<b>UWA:</b> Uganda Wildlife Authority
<b>MDAs:</b> Ministries, Departments Agencies	<b>UWEC:</b> Uganda Wildlife Conservation
<b>MECPA:</b> Metropolitan Environment and Community Partners Association	<b>VU:</b> Vulnerable (IUCN threat category) Education Centre
<b>MECPA:</b> Meaningful Empowerment for Change and Poverty Alleviation	<b>WCU:</b> Wildlife Crime Unit
<b>MFCA:</b> Murchison Falls Conservation Area	<b>WPA:</b> Wildlife Protected Area





# Chapter ONE



Photo: (Adriano Kabagambe)

## 1. Introduction

### 1.1 Scope and Objectives

This report provides a comprehensive overview of the status of wildlife resources in Uganda over the five-year period 2022-2026. It focuses on the current state of affairs of wildlife, population trends, species distribution, conservation pressures, their impacts and management interventions as response strategies across the country's Protected Area estates (including National Parks and Wildlife Reserves), community wildlife areas, Sanctuaries and other areas outside Protected Areas. The report draws information from the recent ecological monitoring programmes and censuses as well as conservation interventions conducted in key landscapes, and tracks how wildlife populations are changing in response to both pressures and management efforts.

The report covers wildlife resources inside and outside wildlife conservation areas in Uganda including mammals, birds, reptiles, amphibians, invertebrates, fungi and plants. It examines seasonal and spatial distribution patterns, threats and interventions, highlighting the contrasts between populations thriving in conservation areas (National Parks, Wildlife Reserves, Sanctuaries and Community Wildlife Managed Areas) and those persisting in community lands, agricultural landscapes, wetlands and migratory corridors outside these areas. The report also pays particular attention to operational challenges such as inadequate funding, staffing gaps, wildlife law enforcement, and relationships between conservation authorities and local communities. Recent successes are noted too, such as the growth in certain large-mammal populations, reintroduction programmes (for example rhinos at Ziwa Rhino Sanctuary, Ajai Wildlife Reserve and Kidepo Valley National Park), and use of new monitoring technologies.





The report has been designed to guide decision-making on wildlife management and prioritisation in resource allocation, monitoring, and the next reporting on the state of Uganda's wildlife resources, providing a benchmark for future assessments. It is intended for a wide range of stakeholders: Government MDAs (UWA, Ministry of Tourism, Wildlife and Antiquities; Ministry of Water and Environment; local governments), conservation partners and NGOs, development partners and donors, as well as researchers and academia. By offering up-to-date, and accessible data, the report aims at providing accountability, form the basis for evidence-based policy formulation, and offer information to UWA management, partners and stakeholders in planning and supporting interventions for wildlife conservation in Uganda

This report aims to:

- Present current information on wildlife, population trends and distribution both inside and outside Protected Areas.
- Assess the main drivers, pressures, and threats to wildlife across the key landscapes.
- Evaluate the effectiveness of conservation initiatives, institutional capacities, and monitoring systems.
- Identify gaps in data, capacity, and policy implementation,
- Recommend strategies for improving wildlife conservation and management.

## 1.2 Rationale and policy provisions

Uganda's wildlife resources are managed by the Uganda Wildlife Authority (UWA), in trust for the people of Uganda, as a national asset. This constitutional and legal framework underpins the conservation and sustainable management of wildlife within the country as follows:

The Constitution of the Republic of Uganda (1995, as amended) specifically binds the State to conserve and protect vital natural resources, including wildlife, for the common good of all citizens. Wildlife resources are specifically enshrined in Article 237(2)(b) of the Constitution of Uganda which provides for the State to hold in trust and protect vital natural resources such as national parks, wildlife reserves, and places important for ecological balance and environmental health. National Objective XXVII of the Constitution also places a further requirement on the State to ensure the sustainable management and conservation of natural resources in order to protect national health and welfare.

The constitutional duty is enabled by the Uganda Wildlife Act, Cap 315 (2024) that provides the legal framework for protection, use, and sustainable management of wildlife resources in Uganda. The Uganda Wildlife Authority is mandated by Section 6(1) (p) of the Uganda Wildlife Act, Cap 315 to produce and provide an annual status report on wildlife resources to the Uganda government. This obligation is significant in addressing the criticality of reliable reporting for the purpose of helping steer resource management, accountability, and conservation-related discussions.

The State of Wildlife Resources in Uganda Report 2026 is therefore a vital national public enabling tool for informed decision-making, policy formulation, and awareness raising. It outlines data on the nature and distribution of wildlife populations, monitoring data, findings, and analysis of monitoring effects, including the effects of conservation interventions within and outside Protected Areas.





## 1.3 Background of Wildlife Conservation in Uganda

### Uganda's Wildlife Conservation Journey

Uganda, which straddles seven of Africa's unique biogeographic regions, sits between latitudes 4°N and 2°S and longitudes 29°W and 35°E. With the dry East African savannahs and moist West African rainforests forming its contours and differing altitudes, Uganda enjoys exceptional biological diversity. It supports more than 18,000 species of flora and fauna, such as internationally significant mountain gorillas, chimpanzees, elephants, and more than 1,000 bird species. Uganda's conservation path has been long and evolving, shaped by ecological considerations, political imperatives, cultural traditions, and economic forces. Below is a timeline of important developments on this journey.

### Pre-colonial Times to 1952: Early Conservation Foundations

Wildlife conservation in Uganda started as early as the 1880s when traditional kings managed hunting grounds as hobbies. The formal concerted establishment of efforts to set aside major ecosystems and wildlife communities for conservation and sustainable use began in 1902. Firstly, as of 1925/26, the colonial government established the Game Department (GD) along with the establishment of Game Reserves in accordance with the Game Preservation Act of 1925, with the primary aim of protecting elephants from extensive indiscriminate hunting. In 1932, the first Game Reserve was established, followed by Reserves, Managed Hunting Areas, and Sanctuaries that later evolved into National Parks.

### 1952 to 1971: The Birth of National Parks and Tourism Boom

Uganda gazetted its first two National Parks, Murchison Falls and Queen Elizabeth, in 1952 under the Uganda National Parks Act (1952) that also created Uganda National Parks (UNP) as a government parastatal responsible for the management of these two national parks. Murchison Falls became East Africa's leading tourist destination, attracting about 60,000 visitors annually.

In 1962, a third savannah National Park (Kidepo Valley National Park - KVNP) was created to mainly protect the black rhino population, large herds of buffalo, zebras, lions and other carnivores, elephants and a variety of other herbivores. By the mid-1960s, Uganda was considered Africa's premier safari destination, surpassing Kenya and Tanzania in wildlife-based tourism. The wildlife and tourism industry then boomed and Uganda was on top as the best tourism destination in East Africa until 1971.

Meanwhile, the Game Department continued to exist as a core Department of Government under the ministry responsible for wildlife. While the Game Department was responsible for management of the Game Reserves, controlled hunting areas and game sanctuaries within which sustainable harvest of wildlife resources was permitted, UNP remained as a core preservative institution that promoted game tourism.

### 1971-1985: Collapse and Crisis

The golden age was short-lived. Political instability and civil unrest between 1971 and 1985 triggered catastrophic declines in wildlife populations. Automatic weapons abandoned by retreating armies were turned on elephants and other species, fueling a surge in commercial poaching for ivory and bushmeat. Throughout the 1970s, elephants in Uganda were intensively hunted for their ivory to supply an expanding international ivory market (Eltringham and Malpas 1980).





Over the period 1979-1985, there was continued and increased slaughter of elephants and other wildlife in Protected Areas due to civil wars and political instability (Edroma 1984). Elephant numbers crashed, from a range of 2,500-4,000 in Queen Elizabeth NP in the 1960s to just 150 by 1980, and from 12,000 in Murchison Falls NP to 1,420 (Douglas-Hamilton et al., 1980). This effect was more pronounced in the conservation areas under the Game Department for Government's failure to adequately finance its operations. Almost no wildlife remained in these areas. On the other hand, UNP was allowed to generate and use its revenue resources and this was helpful in protecting some wildlife populations within the National Parks. Meanwhile, Lake Mburo National Park (LMNP) was also created in 1983 with an estimated size of 680sq.km.

Nevertheless, due to the effects of civil unrest and wars, several species were hunted and disappeared; for example, the Northern White Rhino population in Ajai Rhino Sanctuary was decimated by 1979, and the last Eastern Black Rhino was killed in 1983 in KVNP. Many herbivores like the oryx in Karamoja, bongo in Mt. Elgon, and Derby's Eland in West Nile were lost and are now extinct in Uganda. At the same time, widespread encroachment on parks and reserves undermined habitat integrity. By the mid-1980s, wildlife in savannah areas had declined by an estimated 95% compared to the 1960s.

### 1986-1995: Recovery and Expansion

Following the return of political stability under the NRM government in 1986, efforts to rehabilitate Protected Areas resumed. Recognising the global value of Uganda's wildlife, government upgraded six forest reserves to create National Parks between 1991 and 1995 including; Rwenzori Mountains, Bwindi Impenetrable and Mugahinga Gorilla National Parks in 1991, Mount Elgon National Park in 1992, and Kibale and Semuliki National Parks in 1993. This brought the total number of National Parks to ten, a number that is still being maintained by UWA.

This period also witnessed the reduction of Lake Mburo National Park to almost half of the original size, leaving it at the current size of 370sq.km. The reduction was meant to create government livestock ranches for livestock farming demonstration and provide land for resettlement of the pastoral communities for livestock grazing. This accounts for the existence of lots of wildlife outside the park, being seen roaming the ranches along the Mbarara-Masaka highway. These additions prioritised ecosystems rich in primates, montane species, and endemic wildlife, especially the endangered mountain gorilla.

### 1996: Institutional Reform

In 1996, the government merged the Uganda National Parks and the Game Department to establish the Uganda Wildlife Authority (UWA). This reform strengthened wildlife management through centralised coordination, law enforcement, and new approaches to community engagement and benefit sharing.

Meanwhile, the Forest Department was re-formed into the National Forestry Authority (NFA) to manage 506 Central Forest Reserves (CFRs), covering 6.3% of Uganda's land area. Reserves such as Budongo, Bugoma, Kalinzu, Maramagambo, and Echuya became critical for chimpanzees, forest elephants, and endemic bird species. However, they remained vulnerable to agricultural expansion, charcoal burning, and illegal logging- challenges that have persisted to this day.

### 2000s-2024: Restoration and Species Reintroductions

The 2000s marked a new era of restoration. UWA, working with partners, reintroduced a number of wildlife species to areas where they had disappeared. Since 2001, Uganda has undertaken several wildlife reintroductions and restocking initiatives to restore depleted populations across Protected Areas. These re-wilding efforts signaled a turning point in reversing past losses. Key milestones include:





In 2001, the Uganda Wildlife Conservation Education Centre (UWEC) acquired two Southern White Rhinos from Solio Ranch in Kenya (one female and one male). Unfortunately, these two rhinos did not breed successfully. Subsequently, in 2005, four more Southern White Rhinos were brought from the same place, followed by two more in 2006 from Disney Animal Kingdom in the USA. The six Southern White Rhinos formed the parent stock at Ziwa Rhino Sanctuary in Nakasongola District. By 2025, the rhino population at Ziwa Rhino Sanctuary had grown to 49 individuals, reflecting an annual growth rate of 11%. In December 2025, Uganda received eight additional White Rhinos from South Africa, increasing the total number of Rhinos at Ziwa to 57. In January 2026, Uganda translocated the first four white Rhinos to Ajai Wildlife Reserve to be reintroduced into the wild. Following the birth of a new calf at Ziwa, the population currently stands at 54 in Ziwa Rhino Sanctuary and four in Ajai Wildlife Reserve.

In 2008, Kabwoya Wildlife Reserve received twelve waterbucks, 15 Jackson's Hartebeests, and three giant forest hogs. By 2024, the waterbucks had grown to 52, while only four hartebeests were sighted despite the population of 34 in 2015.

In 2015, Lake Mburo National Park was restocked with fifteen giraffes from Murchison Falls National Park, and by 2025 their population had risen to about 52.

In 2016 and 2017, the southern bank of Murchison Falls National Park was stocked with giraffes (18 and 19 respectively). In 2017, Kidepo Valley National Park was restocked with Uganda Kobs (110).

In 2018, Katonga Wildlife Reserve received zebras (43) and Topis (20), while Kidepo Valley National Park was stocked with giraffes (14). Finally, in 2018 and 2019, Pian Upe Wildlife Reserve was restocked with impalas (92) and giraffes (29). Meanwhile, the first four White Rhinos have been reintroduced into the wild in Ajai Wildlife Reserve this year (January), marking a steady progress in Uganda's species recovery and habitat restoration efforts.

## 2010-2020: Emerging Challenges and Renewed Growth

Despite the successes registered in the wildlife conservation efforts, Uganda's Protected Areas faced persistent threats. These include; widespread human-wildlife conflict, poaching, and illegal trafficking of wildlife and wildlife products, climate change, invasive alien plant species such as *Lantana camara*, *Chromolaena odorata*, and *Parthenium hysterophorus* as well as Problematic Native Species such as *Borassus aethiopum*, *Dichrostachys cinerea*, *Imperata cylindrica*, *Maerua edulis* in Queen Elizabeth NP, continued expansion of encroachment in East Madi Wildlife Reserve and Mount Elgon National Park, and general land-take for infrastructure development (roads, hydropower and oil exploration in Murchison Falls Protected Area), among others. The COVID-19 pandemic (2020-2021) had a heavy blow to conservation funding as tourist numbers plummeted from 332,197 in FY2018/19 to 103,812 in FY2020/21 with some months registering zero tourist arrivals. The outbreak of Covid-19 and the other diseases like Ebola and Marburg highlighted the vulnerability of Uganda's tourism-dependent conservation model.

## 2022-The Present: Expansions and New Horizons

### i) Wildlife resources inside Protected Areas

Since 1996 to date, Uganda's network of Protected Areas under the mandate of the Uganda Wildlife Authority (UWA) has been undergoing remarkable consolidation, recovery, and expansion. UWA currently manages ten National Parks, twelve Wildlife Reserves, thirteen Wildlife Sanctuaries (including Ziwa Rhino Sanctuary), and five Community Wildlife Management Areas (CWMA- Karenga, Amudat, Irimi, Kaiso-Tonya and Rwengara), representing one of the most diverse conservation networks in Africa. These landscapes safeguard globally significant wildlife, including the highly threatened cycads, mountain gorillas, chimpanzees, Nubian giraffes, lions, elephants,





and shoebill storks, while also conserving a rich diversity of lesser-known mammals, reptiles, amphibians, birds, and plants.

The major institutional milestone during this period was the merger of the Uganda Wildlife Conservation Education Centre (UWEC) with UWA as part of broader government agency rationalisation reforms. This integration has expanded UWA's mandate beyond protection and management of wildlife in the wild, to include wildlife rescue, wildlife *ex-situ* management and care, education, and public engagement. Building on UWEC's legacy, UWA is now expanding outreach through the establishment of new regional conservation education centres in Mbale, Gulu, Mbarara, and Kyenjojo, thereby strengthening wildlife awareness and stewardship across the country.

Looking to the future, Uganda is preparing for a significant expansion of the protected area system. Based on the Protected Area System Assessment (PASA), Cabinet has already approved the following upgrades:

- Katonga and Toro-Semuliki Wildlife Reserves to be upgraded to National Parks.
- Bukaleba and Echuya Central Forest Reserves to be upgraded to Wildlife Reserve and National Park status respectively.
- Kyambura and Kigezi Wildlife Reserves are set to be elevated to National Park status and integrated into Queen Elizabeth National Park.

Once approved by parliament, the number of National Parks will expand from 10 to 13, while Wildlife Reserves will reduce from 12 to 9, thereby strengthening Uganda's capacity to conserve critical habitats and flagship species. These changes, alongside the institutional merger, mark a new horizon for wildlife conservation in Uganda, ensuring that the Protected Area System remains resilient, adaptive, and inclusive in safeguarding wildlife for generations to come.

## ii) Wildlife Resources Outside Protected Areas

The 1996 Uganda Wildlife Statute (Statute No. 14 of 1996), which set up the Uganda Wildlife Authority (UWA), granted UWA authority to conserve wildlife but with a primary focus on management and protection of species in gazetted Protected Areas, including National Parks, Wildlife Reserves, Sanctuaries, and Community Wildlife Management Areas. Nevertheless, the Statute was still significant for granting UWA the power to regulate and manage wildlife resources beyond Protected Areas in some measure, and specifically, with community action and projects to promote sustainable wildlife use outside of the Protected Areas. The Uganda Wildlife Act, 2019 (repealed in 2024 as the Uganda Wildlife Act Cap 315), however, broadened the scope of this mandate and provided for the stewardship of Uganda wildlife within and outside of its Protected Areas.

UWA created the country's first 10-year National Plan for Management of Wildlife outside Protected Areas (2021/22-2030/31) in 2021, for instance. It covers key ecosystems that lie beyond the Protected Area systems and acknowledges that large numbers of wildlife species live in the Central Forest Reserves (about 1.2 million ha), Local Forest Reserves (5,000 ha), wetlands (covering 11% of Uganda's surface area), private forests, woodlands, and farmlands. These habitats are managed by a diverse range of actors, including the Ministry of Water and Environment, District Local Governments, and landowners, whose administration priorities have sometimes emphasised vegetation, ecological, and socio-economic values with limited attention to fauna.

In order to enable systematic management, the plan divided the country into six wildlife zones (Sango Bay, Kafu, Muzizi, Aswa, Central, and Kyoga), which were anchored on wildlife stations that coordinated conservation actions in landscapes beyond UWA's traditional Protected Areas. These stations were created to address threats such as poaching, habitat loss, encroachment, and human-wildlife conflict outside Protected Areas; encouraging community





participation, wildlife-based enterprises, ecological monitoring, and stronger governance partnerships. This zonal approach if effectively implemented will enhance conservation of wildlife outside of Protected Areas for the purposes of dispersal, connectivity, and community livelihoods as part of the broader framework for Uganda's protection plans.

## 1.4 Policy and Legal Frameworks

Uganda's conservation and management of wildlife resources are guided by a robust policy and legal frameworks anchored in the Constitution and operationalised through sectoral policies and legislation. The frameworks provide the basis for protecting wildlife, promoting sustainable use of natural resources, and ensuring that wildlife contributes meaningfully to national development and community livelihoods. They define the mandates of key institutions, establish mechanisms for coordination, and align national priorities with regional and international commitments. The following policies and laws form the core of Uganda's national wildlife governance system:

### The 1995 Constitution of the Republic of Uganda

Objective XXVII obligates the state, including local governments, to create and develop parks, reserves, and recreation areas, ensuring the conservation of natural resources. It further mandates the promotion of the rational use of natural resources to safeguard and protect Uganda's wildlife.

Article 237(2b) stipulates that the government or a local government, as determined by Parliament, shall hold in trust for the people and protect natural lakes, rivers, wetlands, forest reserves, game reserves, national parks, and any land reserved for ecological and touristic purposes for the common good of all citizens.

### Wildlife Policy 2014

The Uganda Wildlife Policy 2014 specifically encourages the establishment and strengthening of integrated systems for collecting data, monitoring, and reporting (Uganda Wildlife Policy, 2014, Section 7.3.4). That policy objective directly enables the State of Wildlife Resources in Uganda Report writing by facilitating the process to provide a proper, structured approach to derive and ensure timely, accurate, and reliable information on wildlife resources. In doing so, the report is vital, as it supports the implementation of evidence-based decision-making and the promotion of sustainable use of wildlife resources, thereby contributing to national growth, employment, and socio-economic transformation.

### The Uganda Wildlife Act, Cap 315

The Uganda Wildlife Act Cap 315, lays the ground for the long-term sustainable management and conservation of wildlife resources. In particular, the Act requires the regular preparation and submission of periodic State of Wildlife Resources in Uganda Report for government, policy, and public awareness purposes. Through this prerequisite, wildlife and its information will be systematically collected and processed to be used for decision-making by decision-makers and information sharing in a way that can ensure that wildlife resource quality is promoted into clear data and thus informs policy making; it will create transparency in wildlife management.

Particularly, the amendment, which merged the Uganda Wildlife Authority (UWA) and the Uganda Wildlife Conservation Education Centre (UWEC), has also harmonised coordination and efficiency of wildlife conservation and their respective education activities under this umbrella. Through a constitutional construction of the State of Wildlife Resources Report as an integral part of the State and for monitoring, policy review, and monitoring of the conservation activities and conservation impact, as well as informed decisions to sustain wildlife resources in a manner that supports national development, the Act strengthens the accountability for comprehensive reporting as a tool for tracking the state of wildlife populations, the outcome of conservation efforts, and its ongoing use.



## The Land Act Cap 236

Section 44(1) of the Land Act Cap 236. The Government or a local government shall hold in trust for the people and protect natural lakes, rivers, ground water, natural ponds, natural streams, wetlands, forest reserves, national parks and any other land reserved for ecological and touristic purposes for the common good of the citizens of Uganda.

## The Technical and Vocational Education and Training Act, 2025

As part of the TVET Act, 2025, the Technical and Vocational Education and Training (TVET) Act, 2025, the Uganda Wildlife Research and Training College was established and replaced the Uganda Wildlife Research and Training Institute. This Act is expected to establish a coherent, well-regulated, and controlled national system that ensures skills development and training relevant to Uganda's labour market and economic needs at all levels.

Significantly, it provides a clear institutional framework that outlines a comprehensive framework for coordination, harmonisation, standardisation, and quality assurance of the TVET programmes, trainers, and qualifications in wildlife research and management. Training is coordinated with other institutions to guarantee that wildlife researchers are trained and registered with the appropriate institutions nationally in terms of quality.

By providing learners with relevant skills and knowledge from the field, the College is essential to the development of high-quality data, applied research, and scientific information for informing wildlife decision-making. This data underpins national wildlife monitoring and supports the State of Wildlife Resources Report by delivering ongoing, on-the-ground information on wildlife populations, habitats, and conservation challenges. As a result, the TVET system can contribute to sustainable conservation strategies, as well as a dynamic wildlife sector, evidence-based decision-making, and knowledge-driven policy formulation.

## The National Environment Act, Cap 181

The National Environment Act, Cap 181, established the National Environment Management Authority (NEMA) as the principal agency responsible for Uganda's environmental management and governance. Section 37 mandates the identification and sustainable management of wetlands, recognising their ecological importance at local, national, and international levels. Section 42 requires NEMA to collaborate with lead agencies to implement in situ conservation measures for biological resources, integrating traditional knowledge with scientific approaches. Additionally, the Third Schedule mandates comprehensive Environmental Impact Assessments (EIAs) for establishing Protected Areas such as National Parks, Wildlife Reserves, and Buffer Zones, governed by the National Environmental Impact Assessment Regulations, 1998, to thoroughly evaluate and mitigate potential environmental impacts.

This legal framework is directly relevant to the State of Wildlife Resources Report, as NEMA's coordinating, monitoring, regulating, and supervising roles ensure that up-to-date environmental data is systematically collected and analysed to assess the condition of wildlife habitats and ecosystems. By promoting compliance with environmental standards and addressing emerging threats such as climate change and hazardous pollutants, NEMA provides critical oversight that informs the report's findings and recommendations. Moreover, the integration of traditional knowledge with scientific methods and the emphasis on comprehensive environmental monitoring through the State of Environment Report strengthen policy making and conservation strategies, thereby enhancing the resilience and sustainability of Uganda's wildlife resources in alignment with national and international biodiversity commitments.

## International Laws

Uganda is a party to a number of international and regional conventions, treaties, and protocols that have addressed the conservation and sustainable management of wildlife resources. These





instruments establish a legal framework for cooperation and underscore the role of data collection, monitoring, and research in managing wildlife. Uganda's ratification and domestication of these treaties have brought the country's national wildlife management practices under international consensus, particularly in developing and using good science that works to conserve biodiversity. Key agreements include:

- ❖ Convention on Biological Diversity (CBD), 1992: The CBD requires member states to develop systems to deal with Protected Areas based on scientific research and ongoing monitoring. It encourages the gathering of biodiversity data to monitor the health of ecosystems and the viability of species, directly assisting the creation of knowledge essential to evaluating the status of conservation and guiding adaptive management under the heading of the State of Wildlife Resources Report.
- ❖ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), 1973: CITES stresses the importance of accurate data on species populations and trade volumes in order to regulate and monitor international wildlife trade. Necessary elements of the convention include monitoring and reporting systems of trade; hence, Uganda needs robust data management and reporting systems in place to ensure that trade activities do not compromise species survival, and thus the provisions contribute to the formulation of national wildlife monitoring and reporting frameworks.
- ❖ Convention on Migratory Species (CMS), 1979: CMS facilitates multi-sectoral collaborative research and monitoring programmes in accordance with migratory pathways. Uganda's commitments under CMS consist of formal data collection and scientific study collaborations for tracking migratory species' populations and habitats. The transboundary information exchange strengthens Uganda's capability to support monitoring migratory wildlife and incorporating those findings into the State of Wildlife Resources Report.
- ❖ East African Community Protocol on Environment and Natural Resources, 2006: A protocol that promotes joint monitoring and data-sharing mechanisms among Partner States for transboundary wildlife resources. Data from Uganda on these aspects are collated in joint research and are part of monitoring methods with neighboring countries, improving the quality and comprehensiveness of wildlife data for regional conservation planning, as well as being included in national reporting processes.
- ❖ Ramsar Convention on Wetlands of International Importance, 1971: The Ramsar Convention requires all concerned member states to be aware of the need to update and apply scientific information related to wetland habitats and waterfowl populations as part of ongoing monitoring and research. In Uganda, implementing Ramsar principles, the country is accumulating baseline information and trend analysis on wetland biodiversity, which informs important data on the main wildlife habitats under the State of Wildlife Resources Report.
- ❖ East African Community Wildlife Management Policy (2023): The East African Community Wildlife Conservation and Management Policy emphasizes that wildlife management decisions within Partner States should be guided by "accurate and adequate information" on wildlife resources and ecosystems. This policy principle underscores the need for reliable wildlife data to support conservation planning, monitoring of wildlife populations, and evaluation of management interventions. Producing a State of Wildlife Resources Report enables Uganda Wildlife Authority to systematically compile, analyse, and present national wildlife data, ensuring that wildlife management decisions are grounded in scientific evidence and aligned with regional policy expectations for informed conservation planning
- ❖ East African Community Wildlife Management Strategy (2025): The strategy emphasises the importance of generating reliable wildlife information and reviewing conservation



efforts across Partner States in order to strengthen regional coordination and evidence-based management. The strategy calls for analysis of how wildlife conservation and management efforts are being implemented at the National level, including identifying conservation challenges, institutional capacity gaps, and opportunities for improved coordination across shared ecosystems. It further recommends reviewing national wildlife strategies and compiling information from national biodiversity and conservation reports to inform regional planning and decision-making. This strategic direction supports the need for countries to regularly document the status, trends, and threats facing wildlife resources through comprehensive national assessments.

## 1.5 Analytical Framework for the State of Wildlife Resources: The DPSIR Model.

This State of Wildlife Resources in Uganda Report is based on an integrated analytical framework, which guides the systematic assessment of Uganda's wildlife resources, trends over time, and clarifies the forces that contributed to the changes in wildlife populations and habitats.

This structured reporting framework promotes the coordination of information so that the connections between human action, ecological environments, and management actions can be readily established. This report does more than simply describe a range of species; instead, it explains why changes are taking place, where pressures are highest, and how human activities, land use, infrastructure construction, resource extraction, climate variability, influence the ecological processes.

It is important to align socio-economic drivers with wildlife population trends, environmental pressures with wildlife populations, governance responses with wildlife population trends, and thus foster evidence-based decision-making that facilitates strategic planning, policy evaluation, and adaptive wildlife management practices.

To achieve this, the report focuses on the Drivers-Pressures-State-Impacts-Responses (DPSIR) model as the central analytical framework. Under DPSIR, Drivers are those broader social, economic, and demographic forces shaping wildlife, such as population growth, development paths, and livelihoods. These drivers cause Pressures, such as habitat loss, poaching, human-wildlife conflict, invasive species, and climate-related stresses.

The State of Wildlife Resources reports on the status of wildlife populations, habitats, and ecosystems; Impacts represent how these shifts affect wildlife, ecosystem services, community livelihoods, and national development. Finally, Responses represent the actions taken by government, community, and partners (such as policies, law enforcement, habitat restoration, monitoring, and community engagement) to address such challenges.

By arranging information in these modes, the DPSIR framework allows the report to narrate a consistent story that connects causes to consequences and solutions, supporting informed and timely action on the sustainable management of Uganda's wildlife resources in accordance with national development directions.





## Chapter TWO



(Photo: Ronald Amu)

## 2. Factors Affecting Wildlife Resources and their Impacts

Uganda's wildlife resources conservation and their sustainable management are complex phenomena that are driven by a number of demographics, socio-economic, cultural, institutional, technological, and environmental elements. These aspects operate at various spatial and temporal scales and together determine how wildlife habitats are utilised, modified, and maintained. They define the severity, spread, and continuity of threats to wildlife and ecosystems, both in gazetted and non-gazetted Protected Areas. It is important to understand these factors in order to comprehend trends in wildlife populations, as well as intervention areas in relation to importance and impact, and to develop policy and management responses.

In this report, drivers and pressures are considered as factors affecting wildlife resources, in order to represent the reality that the underlying causes and the direct stressors are inherently closely linked.

The wildlife resource burden that comes from population growth, economic development, cultural practices, infrastructure expansion, climate variability, and governance systems is reflected in habitat loss, degradation, fragmentation, over exploitation, the spread of invasive species, and human-wildlife conflict. The significant factors affecting wildlife resources in Uganda are set forth below.



## 2.1 Demographic Change and Human Settlement Expansion

Uganda's human population is growing rapidly at an annual rate of 2.9%. The 2024 National Population and Housing Census estimated Uganda's population at 45.8 million people. Though slightly lower than the 3.0-3.2% recorded in the early 2000s, there is still a rapid increase in the absolute population numbers (Uganda Bureau of Statistics [UBOS], 2024). This fast growth is driven primarily by high fertility rates, averaging 4.5-7 children per woman, limited access to family planning services in rural and remote districts, internal migration, and migration from neighbouring countries (United Nations Population Fund [UNFPA], 2024). A total land area of approximately 241,038km<sup>2</sup>, roughly 82% (198,000km<sup>2</sup>) is available for use when areas covered by water bodies, National Parks and Forest Reserves are excluded (World Bank, 2024). The resultant high human population density of 232 people per km<sup>2</sup>, mainly in areas next to Protected Areas, has increased the number of settlements and agricultural activities (*Figure 1*).



Figure 1: *Settlement and agriculture increasing near MGNP. (Photo: Clovis Turyamubona)*

It has also increased the requirement for fuel wood, timber, and water. These activities negatively affect wildlife habitats (*Figure 2*), reducing habitat, disturbing corridors, and intensifying human-nature interactions at the periphery of Protected Areas.





Figure 2: *One of the activities that have negatively affected wildlife habitats in MGNP. (Photo: Clovis Turyamubona)*

Demographic trends comprise an intrinsic driver of wildlife population growth in Uganda, which affects settlement, land needs, and resource use in different landscapes. The human population is likely to continue growing rapidly, increasing the demand for settlement and agriculture land, escalating invasion on formerly migratory corridors and dispersal routes for wildlife (Figure 1, 2 and 3). The concentration of populations grows along productive plains, river valleys, and transportation routes, with habitat fragmentation leading to loss of connectivity necessary for seasonal migrations, access to resources, and genetic exchanges between different populations in landscapes. This problem tends to be extremely prominent when trans-boundary and/or interdependent. For example, migratory routes between Murchison Falls National Park (MFNP) and South Sudan have become increasingly restricted as human community development and agriculture in the northern conservation region expand along their corridors.



Figure 3: *Encroachment due to increasing demand for land in Zoka CFR. (Photo: James Kalema)*



These corridors are crucial for a diversity of wildlife species, including elephants and large herbivores, so their blockage restricts their seasonal mobility and cross-border gene flow, with severe consequences for population viability. So, wildlife routes have been established between Tanzania and Murchison Falls Protected Area (MFPA), via Lake Mburo and the Katonga Wildlife Reserve, which have been increasingly curtailed or blocked by increasing settlements, fencing, and land conversion in the region, bringing about disruption of north-south dispersal routes that once made travel within the region possible.

In western Uganda, specifically, settlements between Queen Elizabeth Protected Area (QEPA) and Katonga Wildlife Reserve have reduced effective dispersal channels of wildlife across these ecosystems. The degradation of these connective landscapes hampers animal mobility and isolates population, creating increasingly vulnerable regions with low population densities, allowing for aggregation of wildlife within smaller habitat patches. As a result, there is an increased demand for forage and water resources, contributing to heightened stress on human-wildlife contact at the edges of reserves. With dwindling connectivity, genetic exchanges among populations diminish, and local declines are rendered impervious, especially for large-scale migratory species.

## 2.2 Land Use Change, Agriculture, and Infrastructure Development

Change in the use of land is a primary driver of wildlife resource deterioration in Uganda, which is driven by both demand for, on one hand, agriculture (small enterprises and other forms) and (on the other) large-scale agriculture. The farming of crops like sugarcane, rice, and oil palm, together with the aggressive livestock ranching practices it involves, has resulted into increased competition for land between development and wildlife conservation. These trends are driven by increasing population growth, economic growth, and market demand for food and cash crops (World Bank, 2020).

Developments in infrastructure (i.e., roads, hydropower projects, oil and gas extraction), especially in ecologically sensitive areas like the Albertine region, at the same time, increase land conversion pressures by clashing with sensitive natural ecosystems (*Figure 4*).



Figure 4: *Infrastructure development activities in Protected Areas. (Photo: Benson Baluku)*

Further, rural-to-rural migration and population intensification in areas of high population density have led to population growth that has expanded the scope of new land available for agriculture and population settlement, near forests and wetlands (Forest Trends, 2024). Taken together, these socio-economic and population condition drive habitat change, fragmentation, and degradation in order to promote unfavourable conditions for wildlife sustainability unless managed through equitable land use planning and effective policy support.





Land use change and infrastructure expansion have been particularly felt in key wildlife habitats throughout Uganda. For instance, the development of tourism infrastructures around critical breeding and connectivity corridors, such as lion breeding sites in Kidepo Valley National Park and elephant and chimpanzee corridors connecting Budongo-Bugoma, Kibale-Bwindi forests have disturbed animal breeding and movement patterns respectively contributing to population declines. Existing road infrastructure upgrades and maintenance has also contributed to decline in animal populations through road kills and dilution of the genetic pool of wildlife species through fragmentations and creating isolated animal populations (example of a road kill in *Figure 5*). Additionally, road infrastructure has been linked to increased wildlife crime as it enables easy movement into and out of the Protected Areas. There have been periods of history of landuse changes in which such challenges have appeared (*Figure 6*).

In the Lake Mburo region, in 1986, ranching sections of the National Park were removed from their original form to accommodate livestock farms, agriculture, and settlements, converting the former wildlife landscapes.

Conversely, in Nakasongola areas, intensified agricultural expansion has severely reduced the number of animals reported to inhabit the regions.



Figure 5: *Road kill in Protected Areas due to infrastructure development. Photo : (UBC Online)*

Such habitat loss and fragmentation have significantly diminished the size and quality of available habitats both within and outside of Protected Areas. In addition to the conversion of habitat, wildlife populations are also under pressure from a number of poaching incidents and the targeted elimination of species that are perceived as competitors for pastureland, water, and other resources. This increasing threat limits wildlife mainly to Protected Areas while at the same time compounding edge effects and increasing exposure to human/wildlife confrontation.



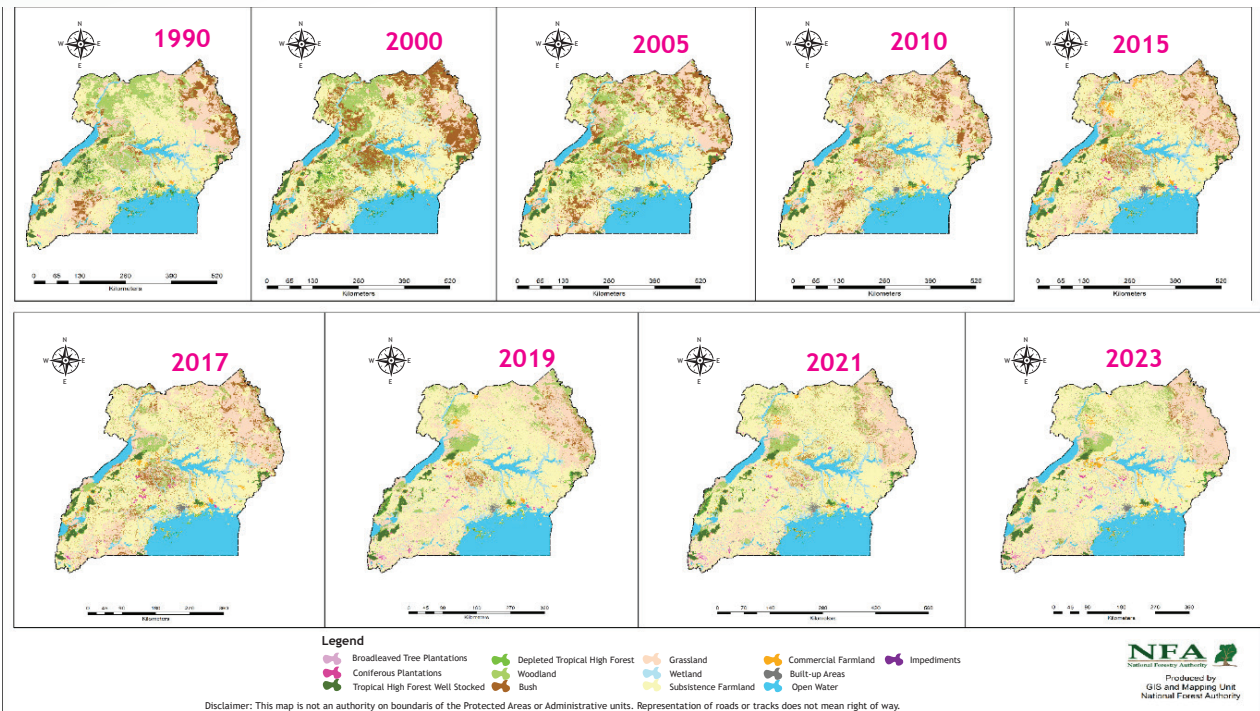


Figure 6: Land use change in Uganda, 1990 to 2023 (Photo: NFA)

### 2.3 Livestock Encroachment and Human-Wildlife Conflict

Livestock disturbance within Uganda’s Protected Areas continues to be a serious and ongoing problem, especially in savannah rangelands such as Lake Mburo, Queen Elizabeth, Pian Upe and Bokora-Matheniko. Pastoralists frequently bring their cattle, goats, sheep, and camels into such parks and reserves seeking grazing land and water (Figure 7).



Figure 7: Livestock encroachment on Protected Areas. (Photo: Benjamin Tumuhimbise)

This battle over limited resources can directly burden wild herbivores, lowering the amount of forage and water they have available, and also upsetting their natural movement patterns. These strains gradually deteriorate vegetation and habitats to the point that ecosystems become less robust and more severely impacted by other threats such as drought and alien invasive and problem native plant species.

Furthermore, the presence of livestock leads to a greater risk of disease transmission from domestic animals to the wild animal population. Diseases such as anthrax, foot-and-mouth disease, and brucellosis can also occur at the wildlife-livestock interface and pose a serious threat to both conservation efforts and local livelihoods. Carnivores like lions, hyenas, and leopards, for instance, often feed on livestock, prompting pastoralists to kill them in revenge, by poisoning, for instance, or snaring (Figure 8).





Figure 8: *Snared elephant. (Photo: Ronald Amu)*

Law enforcement records from the Uganda Wildlife Authority indicate wildlife mortality due to poisoning and diseases between 2010 and 2022, with 13 animals dead from poisoning and 238 deaths related to disease. These conflicting interactions between humans and wildlife have been a major challenge across Uganda Protected Areas with communities bordering Kidepo Valley, Queen Elizabeth, and Murchison Falls National Parks continuing to report frequent incidents of crop damage, human scare, livestock predation, occasional human injury or loss of life and infrastructure damage.

Between 2020 and 2025, Uganda Wildlife Authority recorded over 6,100 conflict incidents. Crop damage accounted for approximately 89% of all reported cases, followed by human scare (3%), human injuries (2%), livestock predation (2%), and infrastructure damage (2%) (Figure 9).

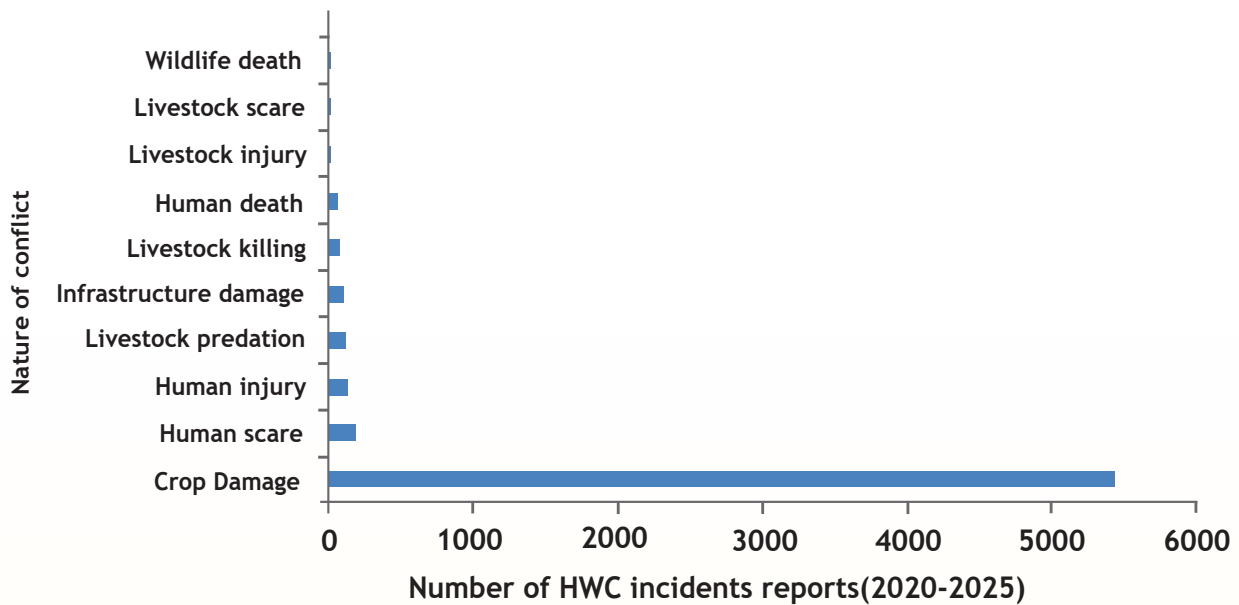


Figure 9: *Nature of HWC incidents recorded by UWA between 2020 and 2025*

Elephants were responsible for the majority of incidents, followed by buffaloes, hippopotamuses, baboons, and large carnivores (Figure 10).



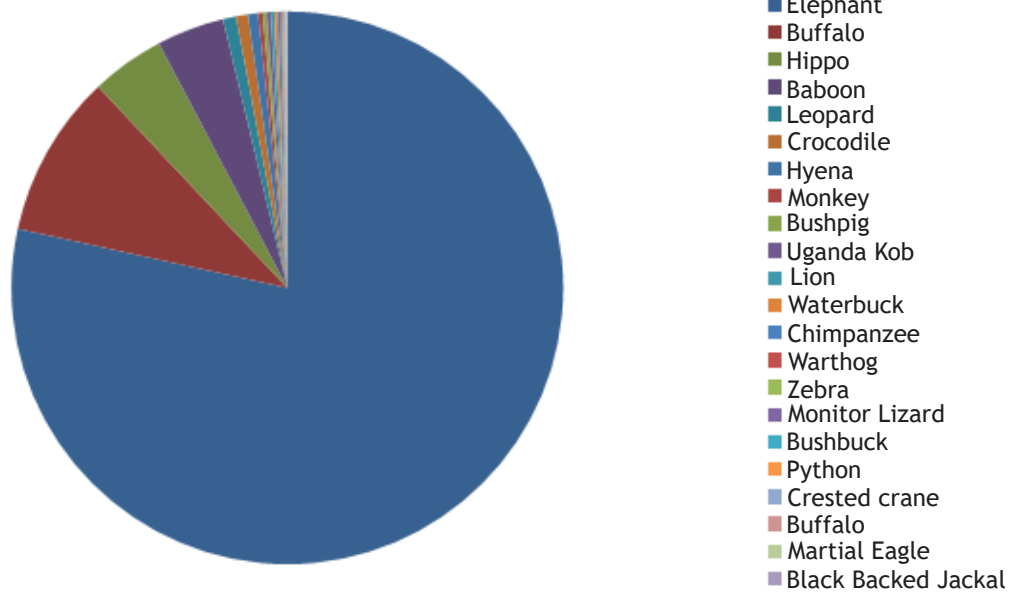


Figure 10: *Most reported animals in human-wildlife conflict between 2020 and 2025.*

Around the forest fragments in Bunyoro sub-regions, Chimpanzees are the leading cause of conflict in the area. UWA data gathered from this area between 2020 and 2025 revealed heightened incidents of human-chimpanzee conflict from 2019 to 2024 (Figure 11).

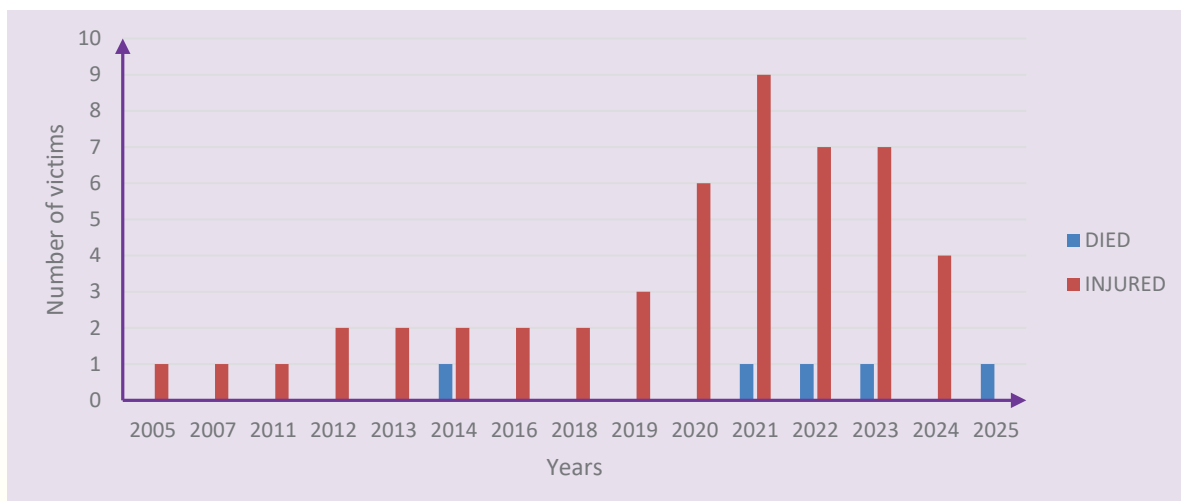


Figure 11: *Human injuries and fatalities from human chimpanzee conflict in the Bunyoro Sub-region between 2005 and 2025*

Compared to earlier reporting periods, both the frequency and geographic spread of incidents have increased, driven by habitat loss, climate-induced resource scarcity, and expanding human settlements near Protected Areas. For example, in Kidepo, in the recent years, more animals have been found living outside the National Park especially during the dry season. In Queen Elizabeth National Park, Lake Mburo National Park, Pian Upe, Bokora-Matheniko, the conflict is heightened by cattle keepers as livestock and wildlife compete for resources.





Retaliatory killing is suspected to have led to the declining numbers in carnivore populations in their home ranges (Figure 12) and endangered chimpanzees especially in the Bunyoro sub region (Figure 13).

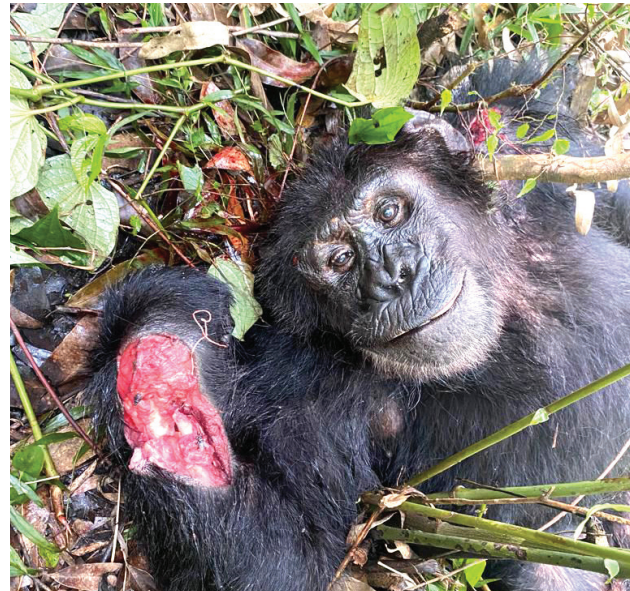


Figure 12: *Suspected retaliatory killing of animals by communities.* (Photo: Wabson Mugabe)

Figure 13: *Endangered chimpanzee.* (Photo: Sebitoli Chimpanzee Project)

## 2.4 Cultural Practices and Resource Use Traditions

Cultural and social practices play an important role in shaping wildlife resource use. Traditional hunting practices, bushmeat consumption, use of wildlife products for cultural ceremonies, and perceptions of wildlife as threats to livelihoods continue to influence human behaviour toward wildlife (Figure 14). In some landscapes, cultural demands for animal parts, combined with poverty and limited livelihood alternatives, contribute to illegal wildlife use and retaliatory killings, particularly of large carnivores such as lions and leopards.



Figure 14: *Traditional hunting practices for cultural purposes or livelihood* (Photo: Tumuhimbise Benjamin)

In December 2025, four lions were lost to poisoning in Queen Elizabeth Conservation Area. This adds to several other deaths Uganda has registered over the years to poisoning.

At the same time, positive cultural values and indigenous knowledge systems offer opportunities for conservation, especially where communities view wildlife as part of their heritage or as a source of tourism and livelihood benefits. Strengthening conservation-compatible cultural practices remains a key opportunity for long-term wildlife stewardship.



## 2.5 Climate Change and Extreme Weather Variability

Climate change also plays a significant role in Uganda's wildlife resources, changing the conditions of the underlying biological substrate for wildlife and ecosystems. Warmer temperatures, variation in rainfall patterns, and increasingly frequent extreme weather events such as drought and floods compromise habitat quality, availability of water, and growth of vegetation nationwide. These changes impact where species can establish and to what extent they can live, breed, and migrate, thereby creating the relationship between wildlife and its habitat across a broader land area. Climate change, by reshaping these environmental baselines, generates and amplifies multiple challenges for wildlife, such as habitat destruction, limited resources, and increased competition between humans and wildlife.

These climate-related stresses come at the same time as invasive plant species that are more tolerant of adverse and scarce rainfall conditions are growing in number. Although these plants excel in variable weather conditions, they tend not to do any good for wildlife, as they replace native plants essential to both breeding and foraging. This displacement shrinks the space in which wildlife feed and breed, thus reducing breeding success and enhancing the incidence of human-wildlife conflict (HWC). Increased HWC is often associated with poaching and retaliatory killings, which pose an even greater risk to wildlife.



Figure 15: *Massive glacier loss in the Rwenzori Mountains due to rising temperatures. (Photo: Project Pressure)*

Climate variability incidents of erratic rainfall, temperature increases, prolonged droughts, and severe weather events, has had an impact on water resources, food quality, disease occurrence, animal movements and flora and fauna existence. For example, the melting glaciers of Mount Rwenzori (Figure 15) pose a serious threat to flora such as the sphagnum moss and usnea beard lichens and fauna such as the three horned chameleon that depend on cold weather for survival.

Combining these factors, climate change represents a cross-cutting force in the long-term evolution of wildlife in Uganda.

Cumulative impacts of climate and invasive species damage the resilience of ecosystems, amplify other human pressures, and eventually place climate change itself as an essential driver of the trajectory of Uganda's wildlife resources and not just as an isolated pressure.





## 2.6 Invasive Alien and Problematic Native Plant Species and Habitat Degradation

Invasive Alien and Problematic Native Plant Species are an increasingly significant factor affecting wildlife habitats and population dynamics driven by climate change variability. Both problematic native plant species (such as *Borassus aethiopum*, *Dichrostachys cinerea* and *Imperata cylindrica* (Figure 16) and invasive alien species (including *Lantana camara* and *Chromolaena odorata* (Figure 17) have expanded rapidly across several Protected Areas. These species reduce forage availability, alter habitat structure, limit wildlife movement, and degrade ecosystem functionality. The spread of Invasive Alien and Problematic Native Plant Species has reduced open grasslands critical for grazers such as zebras, topis, and Uganda kob, pushing wildlife closer to community lands and increasing human-wildlife conflict. In addition, these fast proliferating vegetations reduces visibility during wildlife surveys, particularly aerial counts, which have been the dominant survey method for the 2023-2025 assessment period in most parks. While this does not invalidate population estimates, it highlights an important methodological limitation and underscores the need for complementary ground-based and technology-assisted monitoring approaches.



Figure 16: *Problematic Native Plant Species; Dichrostachys cinerea* (LEFT) and *Imperata cylindrica* (right) (Photo: Caroline Asiimwe)



Figure 17: *Invasive Alien Plant Species; Lantana camara* (left) and *Chromolaena odorata* (right) (Photo: Caroline Asiimwe)



## 2.7 Illegal Wildlife Use and Over Exploitation

### Illegal Wildlife Use

Illegal Wildlife use continues to undermine conservation gains in Uganda, with poaching for bushmeat and ivory remaining the most significant threats to elephants, pangolins, antelopes, and primates (e.g. Snared Elephant in *Figure 18*). Most poaching is done using indiscriminate methods such as wire snares (*Figure 19*).



Figure 18: *Illegal wildlife use: Poaching.*  
(Photo: Ronald Amu)



Figure 19: *Snares used to trap elephants.*  
(Photo: Caroline Asimwe)

While law-enforcement records show a decline in large-scale, organised poaching compared to the 1980s and 1990s, small-scale subsistence poaching persists across many Protected Areas. Between 2016 and 2024, Uganda recorded numerous wildlife seizures involving both live animals and wildlife products.

Elephants dominate seizures throughout the period, mainly through raw and worked ivory, molars, and bones, underscoring Uganda's continued role as a source, transit, and internal market for ivory. Pangolins increasingly feature from 2016 onward, through live animals, skins, and scales, reflecting rising international demand.

A wide range of other species has also been affected, including hippopotamus, crocodile, rhino, lion, leopard, python, tortoise, ostrich, okapi, chimpanzee, antelopes, buffalo, zebra, sitatunga, colobus monkey, and monitor lizard, demonstrating that illegal trade impacts multiple taxa, not just flagship species.

Trends show high volumes of elephant ivory seizures in 2016-2017, followed by more frequent but smaller consignments in 2018-2019, suggesting fragmentation of trafficking networks to evade detection. Illegal trade remained active during 2020-2021 despite COVID-19 restrictions, and inland interceptions increased in 2022-2023, including worked ivory items, pointing to stronger domestic and transit-level trade.





In 2024, continued seizures of ivory, pangolins, crocodile skins, and other products confirm the persistence of the threat. Kampala and surrounding districts, as well as Entebbe International Airport, consistently emerge as key trade hubs, with most interceptions led by UWA in collaboration with Police, Uganda Revenue Authority (URA), and Canine Units, led to arrests and prosecution of people involved in such illegal wildlife trade and use (Figure 20).

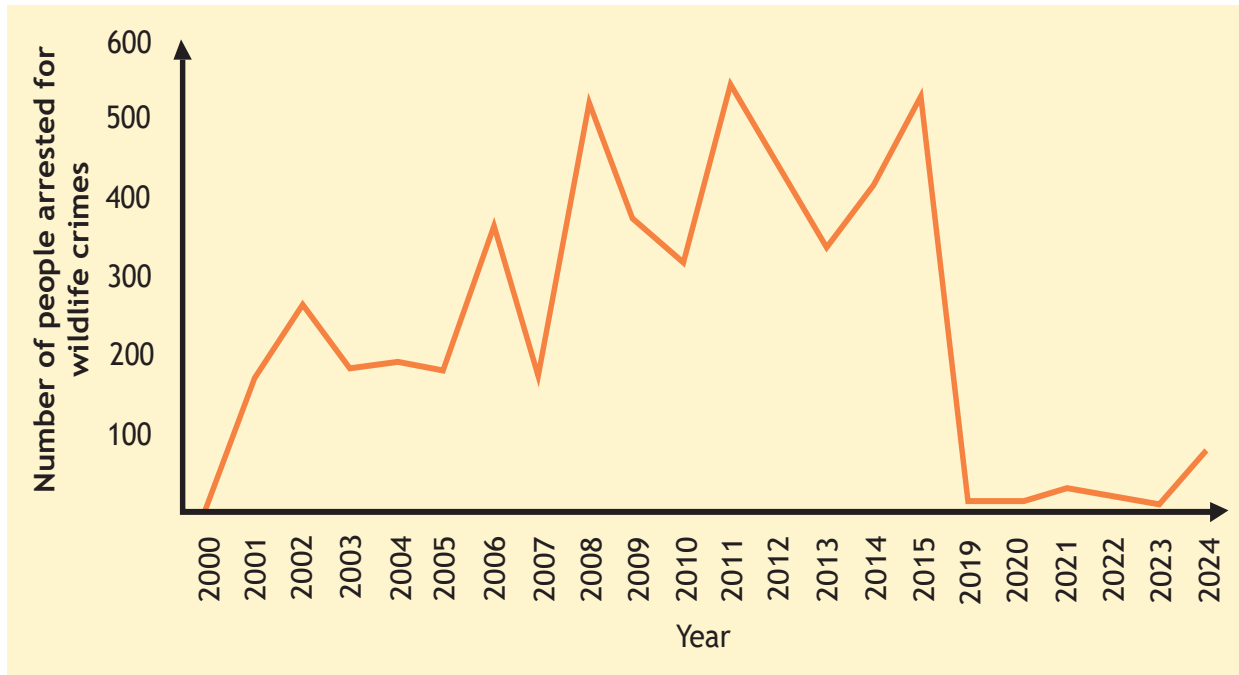


Figure 20: Number of people arrested for wildlife crimes between 2000 and 2024

Illegal extraction and over exploitation of natural resources remain among the most significant pressures on Uganda’s wildlife and ecosystems. These activities include poaching, illegal wildlife use and trade, unregulated fishing, illegal selective logging, charcoal production, and mineral and oil-related exploitation. Collectively, they result in the direct removal of wildlife, degradation of habitats, disruption of ecological processes, and long-term loss of wildlife and ecosystem services.

According to UWA ranger-based patrol data collected between 2019 and 2025, over 110,579 implements or tools used in wildlife poaching were confiscated or recovered from different Conservation Areas (Figure 21). These implements, including snares, fishing gear, traps, and other tools, serve as a direct indicator of the scale and spatial distribution of illegal activities within and around Protected Areas.

Murchison Falls Protected Area (MFPA) accounted for the largest share of confiscated implements, followed by Queen Elizabeth Protected Area (QEPA) and Kibale Protected Area (KPA), reflecting sustained and high-intensity pressure in these landscapes.

In Mount Elgon Protected Area, the poaching and illegal extraction of bamboo has significantly decimated their populations and that of several wild animals including the sitatunga. These areas combine high wildlife value with extensive aquatic and terrestrial resources, making them focal points for illegal exploitation.



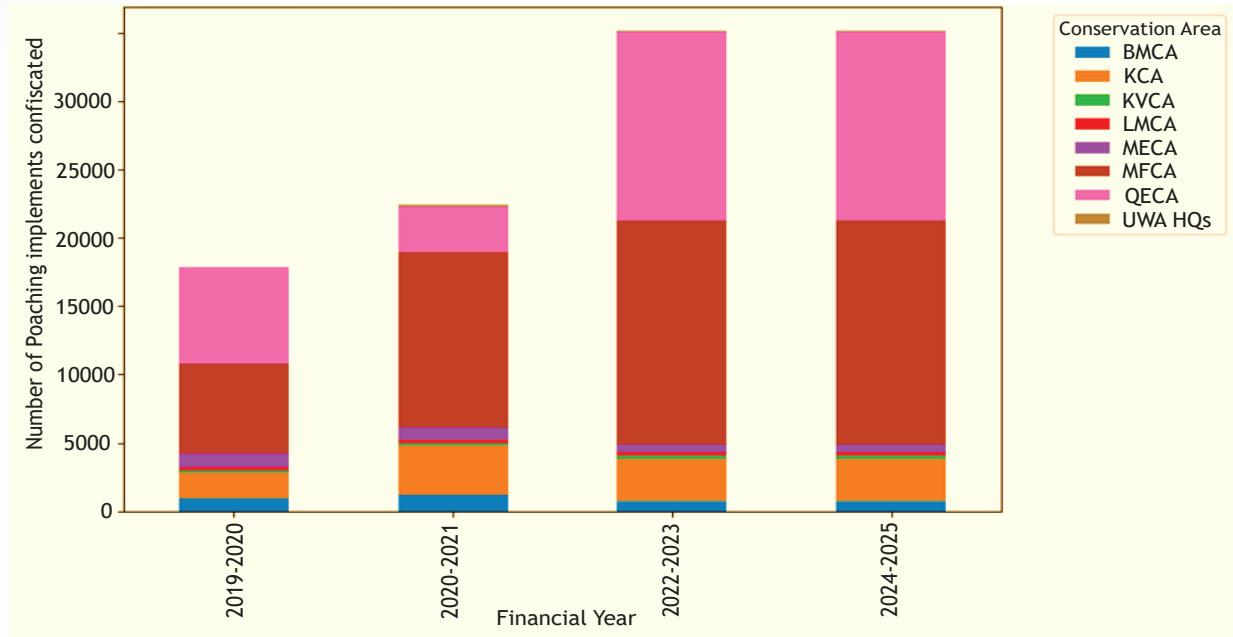


Figure 21: *Number of poaching implements confiscated or recovered from Conservation Areas between 2019 and 2025*

Data from ranger-based patrols between FY 2019/2020 and FY 2024/2025 revealed persistent and, in some cases, escalating use of illegal indiscriminate devices designed to capture wildlife across multiple conservation areas for both terrestrial and aquatic wildlife. For example, for terrestrial wildlife, nylon snares, wire snares, metal traps, wheel traps, bird-net traps, and pit traps are among the registered poaching methods utilised in Uganda’s Protected Areas with wire snares overwhelmingly dominate. Nearly 16,000 wire snares were recovered in 2022/2023, as compared to 4,888 in 2019/2020 and with high recovery persisting into 2024/2025 (Figure 22).

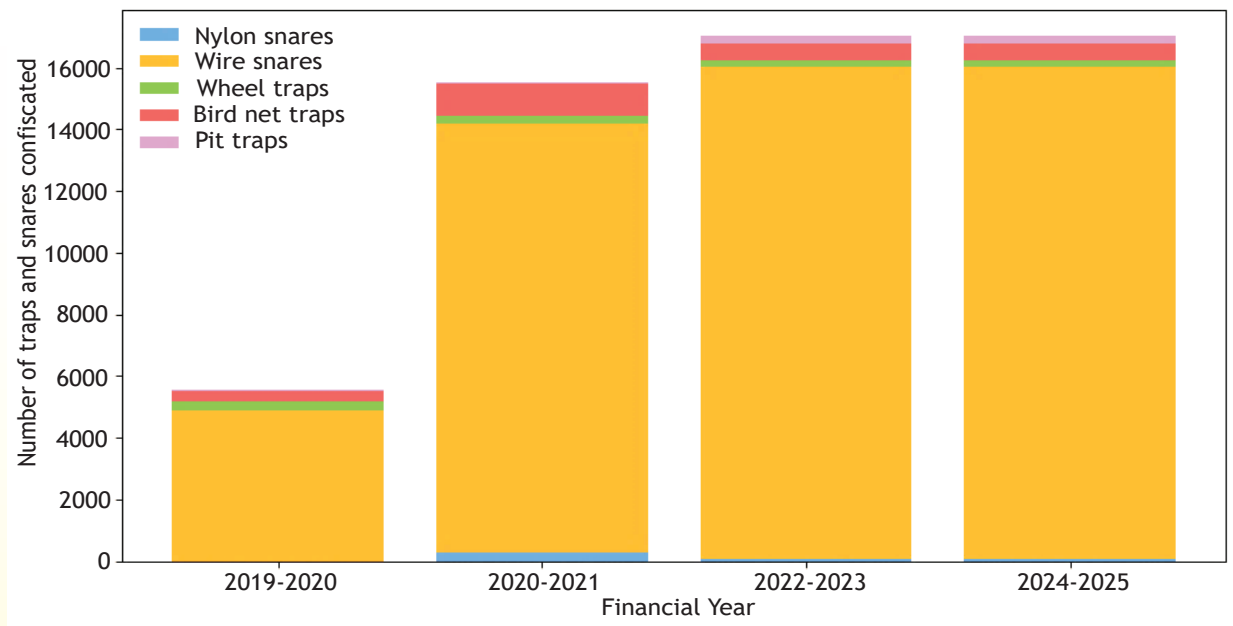


Figure 22: *Kinds of poaching traps and snares used in Conservation Areas between 2019 and 2025*





For aquatic species ranger-based monitoring data from 2019 to 2025 revealed that illegal fishing using prohibited gear such as; illegal fishnets, hook lines, fish hooks, umbrella nets, and unregulated fishing vessels still exist and continue to contribute to over exploitation of fish stocks and degradation of aquatic habitats. Fish hooks and hook lines account for the largest proportion of seized illegal fishing gear, indicating widespread use of longline and small-hook methods that are highly efficient but ecologically destructive, particularly to juvenile fish and non-target species. Illegal fishnets have remained consistently high across all years, reflecting persistent use of prohibited mesh sizes and net types (Figure 23).

The sharp increase in seized oars, canoes, and fishing boats from 2022-2023 suggests an expansion in fishing effort and spatial reach of illegal operations, most likely driven by declining fish stocks, increased demand, and economic pressures on fishing communities. This trend points to a shift from small-scale infractions towards more organised and intensive illegal fishing activities.

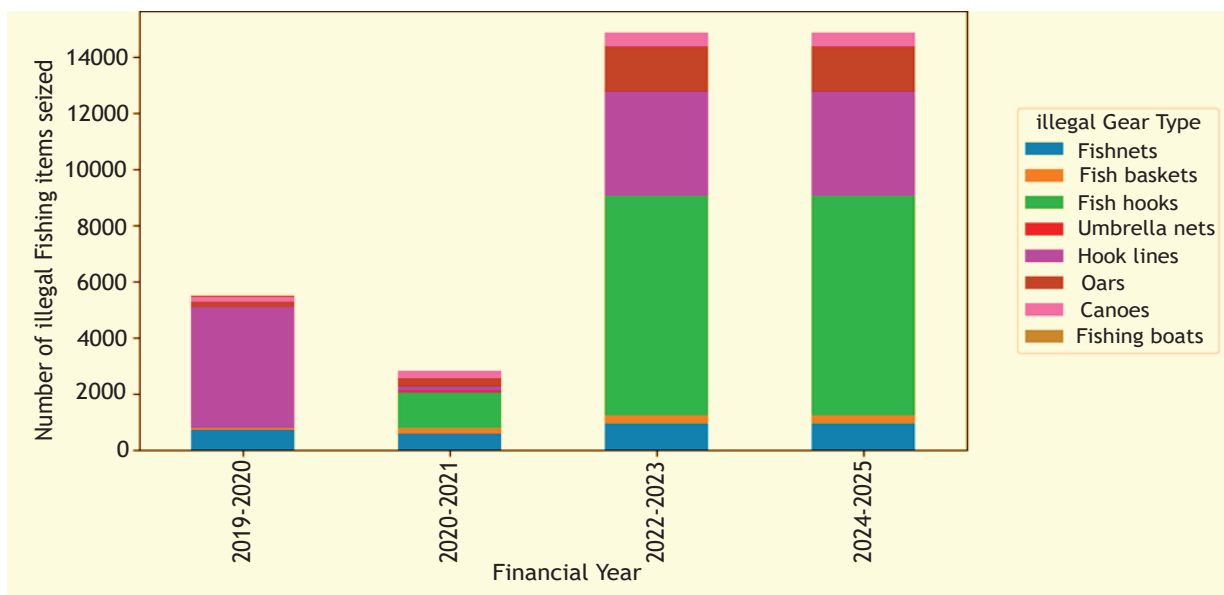


Figure 23: Extent of illegal fishing and methods used in Uganda, 2019-2025

### Timber Harvest and Non-timber Forest Extraction

Illegal timber harvesting and associated forest resource exploitation remain significant pressures on Uganda’s wildlife habitats, particularly within forest reserves and woodland landscapes adjacent to Protected Areas. Analysis of confiscation data between 2019 and 2025 shows that illegal timber extraction peaked sharply in 2019-2020, dominated by large volumes of seized timber.

Across all years, axes remain consistently high, indicating widespread small-scale tree cutting and charcoal-related activities (Figure 24). Indicators of illegal logging and timber harvest including confiscated timber, axes, power saws, sharpening files, handsaws, and pitsaws, providing a clear proxy for the scale, intensity, and methods of forest degradation occurring across conservation landscapes (Figure 25).

The increase in power saws and sharpening files in later years suggests a shift towards more organised and mechanised illegal logging operations, while the continued presence of handsaws and pitsaws, and though at lower levels, confirms persistent artisanal harvesting. The observed decline in timber confiscations after 2019-2020 likely reflects a combination of intensified law enforcement.





Figure 24: *Charcoal burning in Semuliki National Park. (Photo: Charles Kasaija Mwanguhya)*

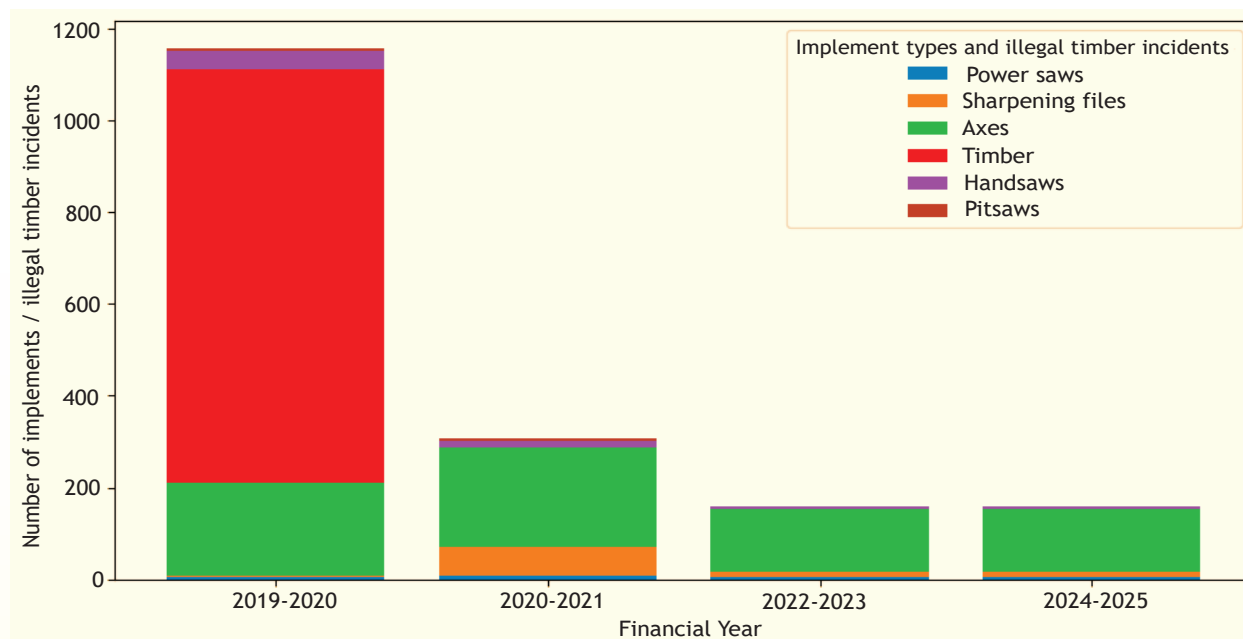


Figure 25: *Illegal timber and other forest resource harvesting implements confiscated between 2019 and 2025*

Non-timber forest extraction plays a significant role in the livelihoods of most communities living adjacent to Uganda’s Protected Areas providing essential products such as medicinal plants, fruits, honey, mushrooms, rattan canes, and fibres. However, despite its importance, there is limited data available on the scale and impact of non-timber forest product extraction across most Protected Areas in the country. The available information is primarily from Bwindi Impenetrable National Park, yet even this data remains sparse and incomplete (Figure 26).



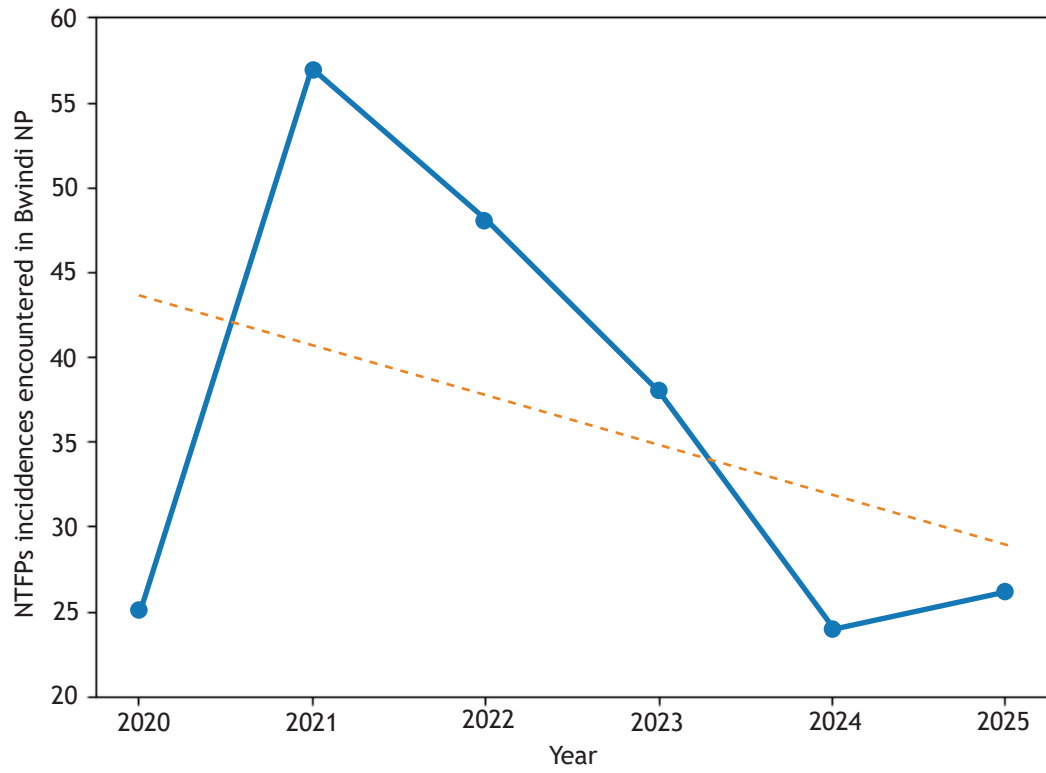


Figure 26: *Non-timber forest product extraction incidents encountered in Bwindi Impenetrable National Park between 2020 and 2025*





*(Photo: Juliet Mirembe)*



*(Photo: Isoke Sam)*





## Chapter THREE



*Photo: Adriano kabagambe*

### 3. State of Wildlife Resources

The State component of the DPSIR framework describes the current condition, status, and spatial distribution of wildlife and ecosystems under the mandate of the Uganda Wildlife Authority (UWA).

This assessment focuses on wildlife populations and habitat conditions within gazetted Protected Areas, as well as wildlife occurring outside Protected Areas, including zoos, sanctuaries, and the six wildlife management zones defined under the National Plan for Management of Wildlife outside Protected Areas (2021/22-2030/31).

The report presents population estimates and spatial distribution of selected indicator species for which relatively reliable and verifiable data are available. For medium and large mammals, population estimates are primarily derived from national and landscape-level wildlife censuses conducted between 2022 and 2025, providing the most recent assessment of population status and trends for savannah and other large-bodied species across Uganda's conservation areas.

This report builds on the 2021 State of Wildlife Resources Report, which highlighted population trends and distribution of key wildlife species, the socio-economic importance of wildlife resources and Protected Areas, and the major threats affecting wildlife conservation in Uganda.

The 2021 report relied on population data from wildlife censuses conducted between 2018 and 2021 and also documented several conservation actions implemented by UWA and its partners.

A key advancement in the 2026 State of Wildlife Resources in Uganda Report is the shift from earlier reporting approaches that largely focused on the population status and distribution of medium to large mammals.





This report adopts a broader and more inclusive perspective consistent with the comprehensive definition of wildlife. It incorporates information on flora, fungi, and invertebrates, as well as vertebrate groups including amphibians, reptiles, birds, and mammals, thereby providing a more holistic representation of Uganda's wildlife resources and biodiversity.

The report also expands the scope of assessment beyond wildlife occurring strictly within Protected Areas to include wildlife populations outside Protected Areas. These include wildlife occurring in sanctuaries, zoos, private wildlife holdings, and landscapes surrounding Protected Areas.

In many ecosystems, wildlife distribution is not confined to gazetted protected area boundaries. Protected Area borders are often porous, allowing wildlife to move into adjacent community lands, dispersal areas, ecological corridors, and seasonal grazing zones in response to changes in water and forage availability.

To reflect this ecological reality, population data in this report are compiled at the conservation area or landscape level, integrating wildlife occurrences both inside Protected Areas and in surrounding buffer and interface zones where regular wildlife movements occur. For analytical clarity, the report distinguishes between; Wildlife populations occurring in and around gazetted Protected Areas, where ecological connectivity allows frequent movement across boundaries; and wildlife populations occurring outside Protected Areas in more isolated landscapes, where habitat fragmentation and limited connectivity restrict regular movement into Protected Areas.

The report further considers habitat condition and land-use/land-cover changes that influence wildlife distribution and population dynamics. These include factors such as encroachment, agricultural expansion, vegetation transformation, and changes in habitat connectivity, which affect the quality and availability of wildlife habitats.

By integrating species population trends with information on habitat condition, vegetation integrity, and landscape connectivity, the report provides a more comprehensive and ecologically realistic overview of the status of Uganda's wildlife resources both within and beyond Protected Areas. This approach supports evidence-based conservation planning and promotes land scape-scale management interventions necessary for sustaining Uganda's wildlife resources.

## 3.1 Status and Trends of Flora in Uganda

### Status and trends of endemic flora species

With 4,816 known native vascular plant species in Uganda (Kalema et al. 2016), a total of 184 endemic and near-endemic taxa are identified and documented. Of these 52 are strict endemic and 82 near endemic, with a further 15 strict endemic and 35 near-endemic infraspecific taxa. These represent 3.8% of the known vascular flora of Uganda with families including Asparagaceae, Asphodelaceae and Asteraceae contributing significantly to the endemic flora. These endemics cover a wide range of growth forms but the majority (60%) is herbaceous, while tree taxa contribute less than 15%. More than 90% of the endemic flora has been assessed for their extinction risk of which 58% are threatened (VU, EN or CR).

Seventeen species have been identified with declining population sizes. Site- and species-specific threats have been identified and recommendations on how to address them are given in the Appendix A.





### Status and trends of Cycads in Uganda

Although cycads are among the most prized plants in the world (Ahlstrand and Stevenson 2021), they are among the most threatened species of plants today (Marler and Marler 2015). Uganda is blessed with four cycad species: *Encephalartos whitelockii* (Whitelock's cycad); *E. equatorialis*; *E. macrostrobilus*; and *E. septentrionalis* (Kalema and Beentje 2012).

The first three species of cycad are globally Critically Endangered (Bösenberg 2024, Eastern Arc Mountains and Coastal Forests CEPF Plant Assessment Project and Bösenberg 2024, Kalema and Beentje 2024). They are also on Uganda's National Red List of threatened plants (MTWA 2018).

*Encephalartos septentrionalis* is assessed as Least Concern, being more widespread, also occurring in Central African Republic, DRC and South Sudan (Eastern Arc Mountains and Coastal Forests CEPF Plant Assessment Project, Kalema and Beentje 2024).

All three of the threatened cycad species in Uganda are range-restricted, being endemic to Uganda (Kalema and Beentje 2012, Kalema et al. 2026a,b; Ojelel et al. 2026, Richards et al. 2026). Each of the three species is known only from a single site.

*Encephalartos whitelockii* occurs in the Mpanga River Gorge in western Uganda, with a very small percentage (<10%) of its population protected within Queen Elizabeth National Park (Kalema and Beentje 2012, Ogwal 2017). *Encephalartos equatorialis* (Figures 27 and 28) is known from Buwerere in Eastern Uganda, with the smaller percentage occurring inside the Bukaleba Central Forest Reserve (Kalema and Mucunguzi 2009).



Figure 27: *Threatened Encephalartos Equatorialis* in Buwerere village. (Photo:James Kalema)

*Encephalartos macrostrobilus* occurs in Era Central Forest Reserve, and the surrounding village of Lama in Moyo District (Ojelel et al 2022). The location of these three sites is shown in Figure 29, and they have all been identified as Important Plant Areas (IPAs), very critical for conservation of plants in Uganda (J. Kalema et al. in prep.; <https://tipas.kew.org/>).

All the three sites are facing threats ranging from land conversion to subsistence agriculture; tree felling for timber, charcoal burning and cutting of poles for construction; stone quarrying because of the many granitic rock outcrops (Byaruhanga et al. 2008, Eastern Arc Mountains and Coastal Forests CEPF Plant Assessment Project and Bösenberg 2024, Kalema 2012, Ojelel et al. 2022).





Consequently, habitat quality and survival of the cycads have continued to decline considerably. There is also some demand for specimens of some cycad species from plant collectors, and their seeds (Ojelel et al. 2022). This reduces the regeneration potential of the cycad species. Occasionally, there is cutting of the cycad leaves off the trees for no known purpose. All these threats have made the three species of cycad very susceptible to extinction.

The Mpanga Gorge species is believed to be the largest population of cycads in the world (Kalema 2008), now estimated at 8,000 (Bösenberg 2024) mature individuals, down from c.10,000 by 2010. *E. equatorialis* was first estimated at 300 mature individuals by Goode (2001), and now at 400 mature individuals (Kalema and Beentje 2024). *E. macrostrobilus* has had very erratic population estimates from 200-300 in 2010, to 181 in 2022 and 884 in 2025.



Figure 28: *Studying the ecology of Equatorial cycad (E. equatorialis) at Buwerere - Right: Female cone with ripe seeds (Photo: James Kalema)*

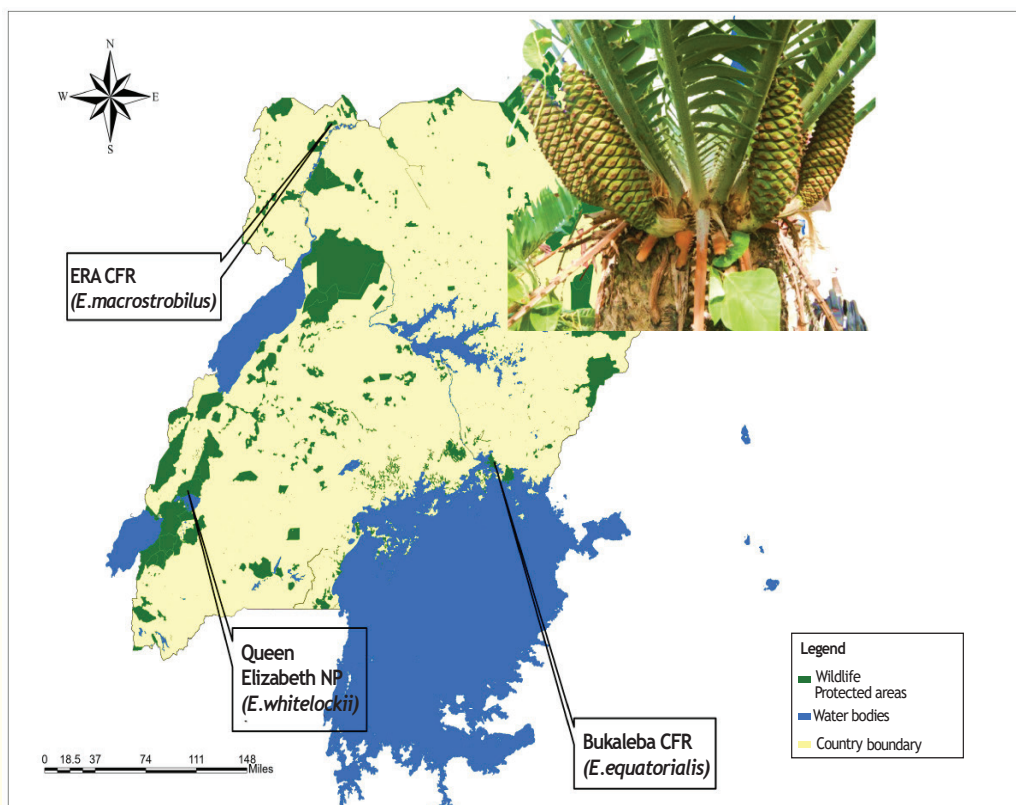


Figure 29: *Location of the three globally threatened cycad species in Uganda*





### Status and Trends of Crop Wild Relatives in Uganda

Crop Wild Relatives (CWR) are plant taxa that are genetically closely related to cultivated plants but growing in the wild. They have an indirect use derived from their relatively close genetic relationship to a crop, and hence important Plant Genetic Resources for Agriculture (PGRFA), as gene donors (Maxted et al. 2008).

At least 84 plant taxa (8.1% of the 1,037 socio-economically useful taxa of Uganda) have been identified as CWR in Uganda (O’Sullivan et al. 2025). Some of these are indicated in Table 1. Notable among them are those related to Coffee, Finger Millet, Pearl Millet, Sorghum, Rice and Eggplant.

The CWR are a very critical wildlife resource, with a key role of ensuring food security owing to their desirable traits of disease and pest resistance, drought tolerance; resilience to climate change, hence important for climate adaptation; and conservation of biodiversity.

Despite these essential values, CWR have not been accorded the prioritisation they deserve. They are undervalued and underutilised (Ford-Lloyd et al. 2011). Consequently, they face threats of pollution, and vegetation clearance for agriculture and urbanisation. Except for a few instances, the CWR have not been given the research attention that they deserve and thus have little or no baseline information available on their distribution and trends.

### CWRs of Coffee

Coffee is by far the most important crop in Uganda’s agriculture sector. An example of wild coffee is in *Figure 30*.



Figure 30: *Wild coffee species in Uganda. (Photo: James Kalema)*

Four native species of coffee occur in the wild in Uganda (see *Figure 31*) - *Coffea canephora* (robusta coffee), *C. eugenioides* (eugenioides coffee), *C. dewevrei* (excelsa coffee) and *C. neoleroyi*, in forest or woodland habitats (Davis et al. 2023, also see Kalema and Beentje 2012, Kalema and Hamilton 2020). However, these are at risk of climate change, encroachment; particularly for agriculture, illegal logging and charcoal burning (Davis et al. 2023).





*Coffea neoleroyi* is globally Endangered (O’Sullivan et al. 2017), but the other three are all globally Least Concern (Chadburn and Davis 2017a,b; O’Sullivan et al. 2020). There is need for CWR *in situ* and *ex situ* conservation efforts to be implemented. Priority CWR and their sites of occurrence need to be identified and protected.

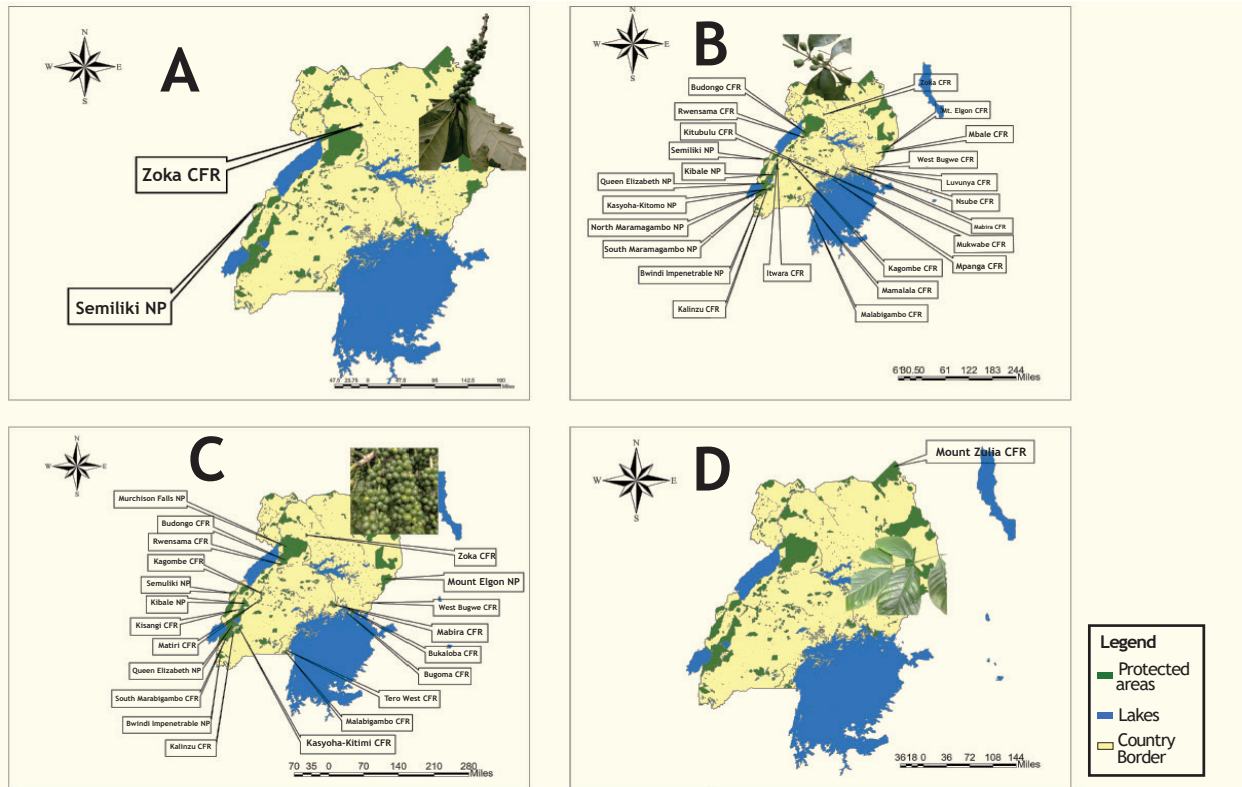


Figure 31: Distribution of wild coffee in Uganda: A: *Coffea dewevrei*, B: *C. eugenioides*, C: *C. canephora*, D: *C. neoleroyi*.

In Uganda, the most important sites for coffee CWR are the forested habitats of Zoka and Budongo CFR. The wild robusta coffee in these two has high allelic richness and expected heterozygosity. It is genetically very unique and possesses special genetic traits not found elsewhere in the world (Kiwuka et al. 2021).

Additionally, research has shown that Arabica coffee (*Coffea arabica*, the most prized coffee species) was formed naturally when two coffee species, Robusta coffee (*C. canephora*) and *C. eugenioides*, combined.

The Robusta-like part of Arabica coffee is very similar to the Robusta coffee plants found in Zoka Forest. This closeness suggests that Zoka forest (and perhaps a wider region including South Sudan and North Kenya) might have been an original home for Arabica coffee, not just Ethiopia.

Zoka has three important coffee species - the “parents of arabica” (Robusta and Eugenioides), and Excelsa coffee, an emerging high priority coffee species. Zoka and Budongo wild coffee populations are highly differentiated with the highest level of originality (in terms of number of private alleles per locus). This indicates that these populations include so far unexplored genetic material, which could be of great potential interest to the coffee breeding sector. This makes Zoka and Budongo extremely valuable for breeding of new, climate-resilient coffee varieties.

The native coffee natural capital plays a crucial role in the long-term sustainability of the Ugandan coffee sector (Davis et al. 2023). There is a dire need to seek special support in ensuring





the conservation of Zoka forest (Figure 32) to allow for the adaptation of the coffee genetic resources important for the present and future generations.

Restoration of this badly degraded forest is urgently needed for recovery of its stock and ecological and socio-economic functionality. Collaborative management and other community-based initiatives should also be initiated.



Figure 32: *Zoka forest, an Important Plant Area*  
(Photo: James Kalema)

In Uganda, *C. neoleroyi* is highly restricted, only known from Mount Zulia CFR (Figure 31{D}). *Coffea dewevrei* is only known from two sites, Semuliki National Park and Zoka CFR (Figure 31{A}). The other two species, *C. canephora* and *C. eugenioides*, are more widespread (Figure 31 {C,D}). While more records have been made of *C. dewevrei* to-date, *C. neoleroyi* has remained only known from two accessions since pre-2021 collections (Figure 33). The site for *C. neoleroyi* (Mount Zulia CFR), Zoka CFR and Semuliki NP (the two sites for *C. dewevrei*) have been identified as Important Plant Areas in Uganda (J. Kalema et al in prep.; <https://tipas.kew.org/>).

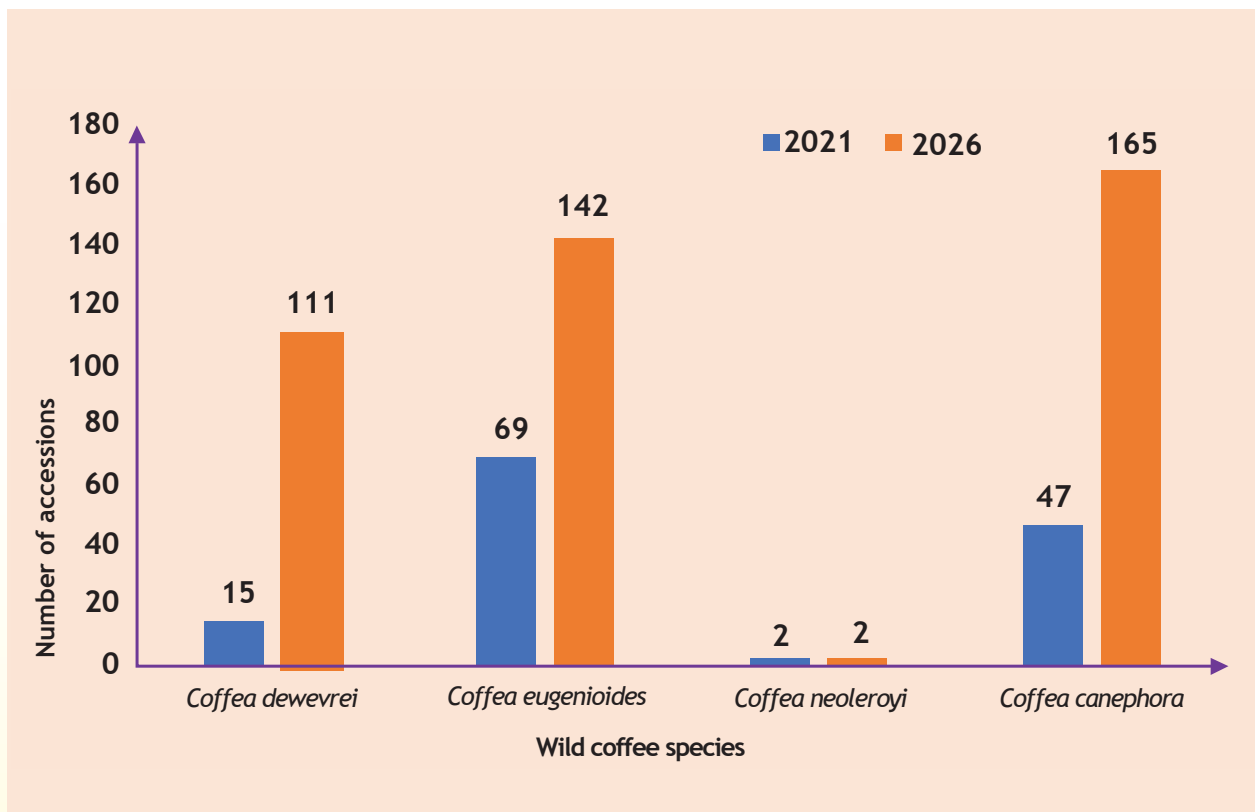


Figure 33: *Comparison of abundance of wild coffee species in Uganda between just before 2021 and 2026. Source: Kalema et al. (in prep.)*





### CWRs of Eggplant

The following six wild *Solanum* species have contributed to the genepool of eggplant: *Solanum aculeatissimum*, *S. anguivi*, *S. campylacanthum*, *S. cyaneopurpureum*, *S. dasyphyllum* and *S. hastifolium* (Figure 34). These species grow more commonly in disturbed areas of bushlands and grasslands, as well as in forest and thicket edges. They have widespread occurrence in the country except *Solanum hastifolium*, which is known only from Karamoja (Moroto). Globally, the species are of Least Concern. *Solanum campylacanthum* is often regarded a noxious weed in grasslands, sometimes occurring in high abundance but the rest of the species are often low in abundance. The major threat to these species is bush clearance.



Figure 34: Some species of *Solanum*, CWRs of Eggplant (Photo: Mary Namaganda)

### CWRs of Finger Millet



Figure 35: *Eleusine kigeziensis*, CWR of Finger Millet (Photo: James Kalema)

These include: *Eleusine coracana* subsp. *africana* (African finger millet), *E. jaegeri* and *E. kigeziensis* (Figure 35), all species of Least Concern (globally). *Eleusine coracana* subsp. *africana* is a widespread and common weed of disturbed places especially in open areas, whereas *E. jaegeri* and *E. kigeziensis* are more restricted and uncommon, and occur in forested areas along tracks and paths.

The major threat to their existence is vegetation clearance. Up to 2016, *E. jaegeri* and *E. kigeziensis* had increasing Extent of Occurrence and Area of Occurrence following a targeted survey that discovered more locations where the species occurred (Table 1). However, the current trends are unknown.





### CWRs of Pearl Millet

The wild relatives of pearl millet are: *Cenchrus caudatus*, *C. hohenackeri*, *C. mezianus*, *C. procerus*, *C. purpureus*, *C. ramosus*, *C. riparius*, *C. trisetus* and *Pennisetum mildbraedii*.



Apart from *Cenchrus purpureus* that is widespread, and *C. caudatus* that also occurs in Kabale and Kisoro, the distribution range of these species is northern and eastern Uganda, overlapping the growing zones of pearl millet (Figure 36). *Cenchrus riparius* and *C. trisetus* are restricted to the Mount Elgon area, whereas *C. mezianus* is restricted to Moroto and Kotido.

Habitat destruction is the main threat to these species. For example, the small but formerly healthy population of *C. hohenackeri* at Kafu was trampled over and the place currently operates as a market. Thus, whereas further research usually documents new distribution points, it is commendable to survey old localities in order to update occurrence records of species (Table 1).

Figure 36: *Cenchrus caudatus* (Photo: James Kalema)

Table 1. Status of CWRs of finger and pearl millet in the year 2016

CWR	Related crop	No. of pre-2016 known localities	No. of localities in 2016	Pre-2016 Extent of Occurrence (EOO in km <sup>2</sup> )	Potential EOO in 2016 (km <sup>2</sup> )	Pre-2016 AOO (km <sup>2</sup> )	Potential AOO in 2016 (km <sup>2</sup> )
<i>Eleusine jaegeri</i>	Finger millet	7	10	5,429.54	5,875.91	49.93	59.91
<i>E. kigeziensis</i>		7	17	746.66	781.36	69.90	89.87
<i>Cenchrus caudatus</i>	Pearl millet	10	24	34,404.01	42,239.55	99.86	179.74
<i>C. mezianus</i>		10	23	8,998.69	13,773.41	89.87	169.76
<i>C. procerus</i>		9	32	7,970.60	10,353.68	89.87	209.70
<i>C. hohenackeri</i>		4	6	4,857.71	4,857.74	39.94	59.91
<i>C. ramosus</i>		11	53	5,406.47	12,792.22	109.84	289.58
<i>C. riparius</i>		2	0	NA	NA	1	NA
<i>C. trisetus</i>		1	0	NA	NA	1	NA
<i>P. mildbraedii</i>		8	0	303.87	NA	79.88	NA

Source: Adapted from Kalema et al. 2016





### CWRs of Sorghum

Two wild relatives of sorghum occur in Uganda (Figure 37). *Sorghum bicolor* subsp. *verticilliflorum* (common wild sorghum) is a widespread and usually abundant weed in disturbed places, particularly sorghum plantations. On the other hand, *Sarga purpureosericea* (Syn: *Sorghum purpureosericeum*) is known only from Karamoja region and can grow locally abundant in some places. There is currently no major threat to these species but bush clearance could significantly reduce the population size of *S. purpureosericea* in Karamoja.



Figure 37: *Sorghum* wild relatives. (Photo:James Kalema)

### CWRs of Rice

Uganda has three wild crop relatives of rice: *Oryza eichingeri*, *O. longistaminata* (Figure 38) and *O. punctata*. *Oryza eichingeri* grows in wet places in forests, occurring either in small pure communities or as scattered individuals. It is relatively widespread occurring in the central, western and north western forests. *Oryza longistaminata* is a wetland species that may grow in pure extensive stands particularly in the Lake Kyoga wetlands. *Oryza punctata* is a forest and riverine bush species that does not have clustering/dominating tendencies.



Figure 38: *Wild rice, Oryza longistaminata* in the foreground. (Photo:James Kalema)

Thus, it is probably the most vulnerable of the three species. Deforestation would threaten both *O. eichingeri* and *O. punctata*. Focus on the conservation of these two species should be put on Budongo and Bwamba forests where both species occur. The localities of *O. punctata* in Karamoja (Loolung and Kaleri Hill) are outside the protected area network. The populations of *O. eichingeri* in Mabira Forest are also probably well protected but the ones in Bugoma and Zoka forests are under threat because of habitat degradation, just like the ones along Entebbe Road and in Kiboga.





### Other CWRs

According to the database 'Plants Of the World Online' (<https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:60467411-2#distributions>), the occurrence of *Vicia sativa* subsp. *Nigra*, the wild relative of the common vetch is doubtful in Uganda. It is, however, presented here until evidence against its presence is available.

*Vigna unguiculata* subsp. *Pubescens*, the wild relative of the cow peas, is documented to occur in Mbale and probably a few other undocumented areas (unpublished records), however, the cultivation of cow peas is not widespread in the country.

*Vicia lenticula* (*Lens ervoides*), the wild relative of lentils, is known to occur in Kisoro in only one locality below Mt. Muhavura. Although lentils are not cultivated in Uganda, the country should conserve the related rare genetic resources because they could be useful in the future through international exchanges.

*Ipomoea ochracea*, the wild relative of sweet potato, is reported to occur along the western border close to the DRC (<https://www.gbif.org/species/2928568>). Targeted surveys are recommended to document the occurrence of this species.

## 3.2 Status and Trends of Macrofungi in Uganda

Macrofungi form an important component of Uganda's biodiversity and play critical ecological roles in forest ecosystems, including nutrient cycling, decomposition of organic matter, and symbiotic associations with plants and animals. Despite their ecological and socio-economic importance, macrofungi in Uganda remain poorly documented compared to other taxonomic groups, and available information is largely derived from a limited number of ecological studies and academic theses conducted in selected ecosystems.

Most research on macrofungi in Uganda has focused on species diversity, distribution patterns, and ethnomycological knowledge, particularly in forest habitats such as Bwindi Impenetrable National Park, Kibale National Park, Mpanga Forest, Mabira Forest, and areas within the Lake Victoria Basin (Forest Macrofungi: *Figure 39*). To date, no national conservation assessments of macrofungi have been conducted for Uganda. The conservation status of fungal species occurring in the country has therefore not been formally evaluated at the national level. However, some fungi globally have been assessed under the IUCN Red List of Threatened Species, highlighting the growing recognition of fungi as important components of biodiversity requiring conservation attention.



Figure 39: Forest Macrofungi (Photo: Lucy Donaldson)





Existing studies indicate that Uganda supports a diverse assemblage of macrofungi (Table 2), although comprehensive national inventories remain limited. Early regional work on fungal diversity in East Africa, including studies on agarics and polypores, provided baseline information on fungal diversity and distribution across the region and documented several taxa occurring in Ugandan forests, grasslands and woodlands.

Research on edible indigenous mushrooms in the Lake Victoria Basin (Rakai District) documented at least 10 mushroom species across five genera, with diversity varying across vegetation types such as grasslands, forests, and agricultural areas. Environmental factors including soil properties and vegetation structure were found to influence species occurrence and distribution.

Further studies in Mpanga Forest (Mpigi District) documented macrofungal diversity and local community knowledge on edible and medicinal species. The study highlighted the importance of macrofungi as non-timber forest products and emphasised the influence of soil nutrients, organic matter, and seasonal rainfall patterns on species richness and abundance.

In western Uganda, a detailed investigation of polypores in Bwindi Impenetrable National Park and Kibale National Park provided one of the most comprehensive species inventories for the country. The study produced a checklist of species and documented several taxa new to science from these forests, including first records collected from Bwindi and Kibale.

These studies collectively indicate that Uganda’s tropical forests harbour significant macrofungal diversity, particularly in moist forest ecosystems of the Albertine Rift and central forest reserves.

Table 2. Selected macrofungi record in Uganda

Group	Scientific name	Common / Use name	Location recorded in Uganda	Source and year
Edible macrofungi (Agarics)	<i>Termitomyces titanicus</i>	Giant termite mushroom	Lake Victoria Basin, central Uganda	Engola et al., 2007
	<i>Termitomyces microcarpus</i>	Termite mushroom	Lake Victoria Basin, Rakai	Engola et al., 2007
	<i>Termitomyces</i> sp.	Edible termite mushroom	Mpanga Forest, Mpigi	Ngom et al., 2022
	<i>Leucoagaricus rubrotinctus</i>	Edible woodland mushroom	Mpanga Forest	Ngom et al., 2022
	<i>Volvariella volvacea</i>	Paddy straw mushroom	Central Uganda forests	Pegler, 1977
	<i>Auricularia auricula-judae</i>	Wood ear mushroom	Central and western forests	Pegler, 1977
Agarics (Order Agaricales)	<i>Marasmius</i> sp.	Litter-decomposing mushroom	Mpanga Forest	Ngom et al., 2022
	<i>Psathyrella</i> sp.	Saprophytic agaric mushroom	Mpanga Forest	Ngom et al., 2022
	<i>Coprinus</i> sp.	Ink cap mushroom	Central Uganda forests	Pegler, 1977





	<i>Schizophyllum commune</i>	Split-gill mushroom	Tropical forests including Mpanga	Pegler, 1977
Polypores (Bracket fungi)	<i>Spongipellis africana</i>	Bracket fungus	Bwindi Impenetrable NP	Ipulet, 2005
	<i>Grammothele africana</i>	Polypore fungus	Bwindi Impenetrable NP	Ipulet, 2005
	<i>Junghuhnia africana</i>	Wood-decay fungus	Bwindi Impenetrable NP	Ipulet, 2005
	<i>Junghuhnia glabricystidia</i>	Wood-decay fungus	Kibale National Park	Ipulet, 2005
	<i>Gloeoporus africanus</i>	Poroid crust fungus	Bwindi Impenetrable NP	Ipulet, 2005
Other macrofungi	<i>Hypoxyylon</i> spp.	Wood-inhabiting fungus	Mabira, Mpanga and Zika forests	Taligoola and Whalley, 1976
	<i>Xylaria</i> spp.	Deadwood fungus	Mabira, Mpanga and Zika forests	Taligoola and Whalley, 1976
	<i>Ganoderma lucidum</i>	Reishi /bracket fungus	Western and central forests	Ryvarden and Johansen, 1980
	<i>Trametes versicolor</i>	Turkey tail fungus	Western and central forests	Ryvarden and Johansen, 1980

**Ecological Importance:** Macrofungi play essential ecological roles in Uganda's ecosystems. Many species function as saprophytes, decomposing dead wood and plant litter and contributing to nutrient recycling in forest ecosystems. Others form mutualistic relationships with plants through mycorrhizal associations, enhancing nutrient uptake and supporting forest productivity. Others are parasitic.

In addition to their ecological functions, many macrofungi species are important sources of food and traditional medicine for rural communities. Indigenous edible mushrooms such as *Termitomyces* and *Agaricus* species are widely harvested and form an important seasonal source of nutrition and income in many parts of Uganda.

Despite these contributions, the current knowledge of macrofungi in Uganda remains fragmented and incomplete. Most available studies are localized and often conducted as graduate research projects rather than systematic national surveys. Consequently: (i) Comprehensive species checklists for Uganda are lacking (ii) Information on species abundance and population trends are largely unavailable (iii) Distribution data are limited to a few well-studied forest ecosystems and (iv) Many potentially occurring species remain undocumented or undescribed.

### 3.3 State of Insects and Other Invertebrates in Uganda

Arthropods that include the insects are the most diverse and functionally important animals on Earth (Stork 2018). In some regions terrestrial populations are known to be declining. Despite this, insects and other invertebrates are often overlooked in conservation policy, and it is difficult to assess how anthropogenic threats and conservation actions affect insect populations. The changes are happening even in the most Protected Areas. Arthropods play a very critical role in the functioning of both aquatic and terrestrial ecosystems, including decomposition, nutrient recycling, pollination and predation, and water filtration (Noriega et al. 2018, Prather et al. 2013). Despite their prominence in ecosystems and the emerging understanding about their declines, insects remain largely overlooked in the national and international biodiversity conservation agendas, with most arguments focused on large vertebrates (Figure 40). The globally threatened





(Endangered) Bwindi Junglewatcher (*Neodythemis munyaga*), is only known with certainty from Uganda, uncertain from DRC (Clausnitzer 2018). The globally threatened (Vulnerable) Papyrus wisp (*Agriocnemis palaeforma*) is restricted to Uganda and Rwanda (Clausnitzer 2016). The population size and trends of these two important species are unknown.

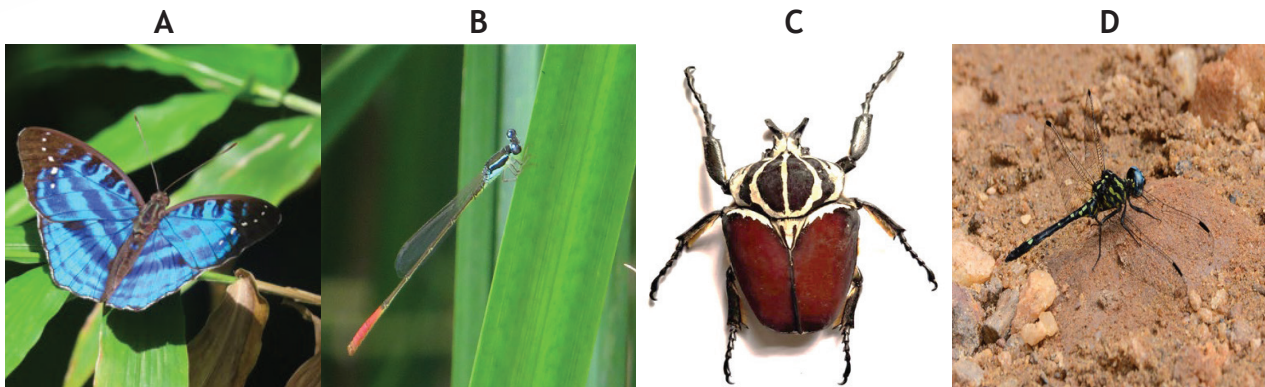


Figure 40: *Arthropods (insects) - Butterfly (A), Damselfly (B), Goliath Beetle (C), Bwindi Jungle Watcher (D)*(Photo: Akite Perpetra (A-C), Racheal Hopper (D))

### National and Global Conservation Status of Insects

While over 80% of most vertebrates have been globally assessed, only 1% of insect species have been assessed and a disproportionate number of which are classed as Data Deficient (IUCN, 2025). Out of the 29 insect Orders, only the Odonata (dragonflies and damselflies), has been comprehensively assessed both nationally and globally (IUCN 2026, WCS 2016). In Uganda, only two insect groups have been evaluated; butterflies and dragonflies (WCS 2026). Globally representative species belonging to at least four insect Orders have been assessed; Lepidoptera, orthoptera, Odonata, and two non-insect taxa (Mollusca and Crustaceans). Some examples of Order Lepidoptera are shown in Figure 41.



Figure 41: *Some invertebrate fauna of Uganda. Left: Hypolycaena jacksoni, Centre: Argyrocheila undifera, Right: Cynandrapis* (Photo: Akite Perpetra)

### Conservation Status of Other Invertebrates in Uganda

According to the IUCN, majority of invertebrates in Uganda have not been either globally nor nationally assessed. The only exception is dragonflies that have all been globally and locally assessed. For insects of Order Coleoptera (beetles), all the IUCN assessed species are listed as Data Deficient (DD). Table 3 provides a summary of the conservation status of those groups that have been assessed.





Table 3. Conservation status of invertebrates in Uganda (CR = Critically Endangered, EN = Endangered, VU = Vulnerable)

TAXON	IUCN			UGANDA		
	CR	EN	VU	CR	EN	VU
ODONATA	0	3	3	16	4	24
LEPIDOPTERA	0	0	1	42	57	63
ORTHOPETRA	0	2	2	0	0	0
MOLLUSCA	10	7	5	0	0	0
CRUSTACEANS	1	2	5	0	0	0

From Table 3, most of the invertebrate fauna of Uganda have not been assessed. The number of threatened species at the National level is much higher than that considered globally. This includes most of the species that are known to be endemic to Uganda. Also, some of the species that are considered globally Data Deficient are considered nationally threatened. Mollusca and the Crustaceans, have only been assessed globally but not nationally. Similarly, all the beetles (Order Coleoptera) that have been assessed globally are considered Data Deficient and none has been assessed nationally. A comprehensive survey to document baseline information as well as updating the extensive data gaps is needed urgently.

### 3.4 Status of Herpetofauna (Amphibians and Reptiles) in Uganda

#### Distribution, Abundance, and Trends

Uganda's herpetofauna, which include amphibian and reptilian species, is an important part of the country's biodiversity. Uganda's amphibian species is estimated to range from 90 to 121 species, with projections of more than 130 species, and documented records remain of 89 species. Reptile species are relatively better documented; estimates are between 176 and 219, projections above 240, with 176 confirmed species.

Herpetofauna in Uganda are distributed on the basis of its altitude, vegetation cover, and climate, with most species inhabiting forests and wetlands, which are major biodiversity hotspots. Albertine Rift area is still the most studied, however large portions of Uganda, including northern Uganda (from West Nile to Karamoja), eastern, central, and southern sections of Uganda, and wetland and agricultural landscapes are poorly surveyed, despite research attempts such as Pian Upe Wildlife Reserve.

A recent survey revealed that a total of 88 herpetofauna species (constituting approximately 30%) have been documented to occur in Protected Areas; while about 70% of herpetofauna species occur outside Protected Areas; especially in areas dominated by wetland and agricultural habitats (Behangana, 2025). Some of the Protected Areas where herpetofauna have been recorded and their numbers are shown in (Figure 42). Notably, most species lack long-term population monitoring, with the exception of the Nile crocodile, which has been monitored since the 1960s and is currently in decline. This underscores a critical need for comprehensive surveys, increased conservation beyond Protected Areas, and extensive monitoring programmes to protect Uganda's herpetofaunal diversity. To build on the knowledge regarding herpetofauna of Uganda, data analysis from historical records and multiple biodiversity databases (including the Amphibian Species of the World; AmphibiaWeb; IUCN; GBIF).



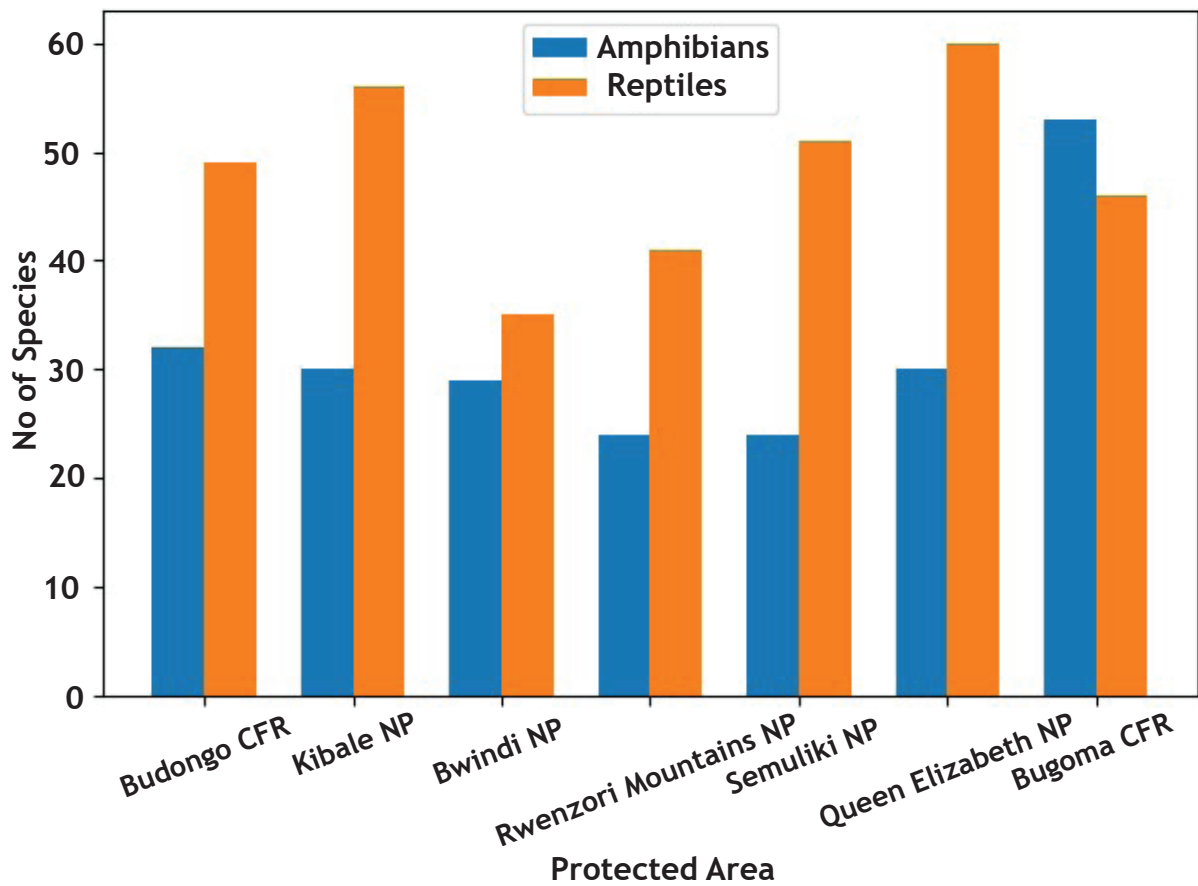
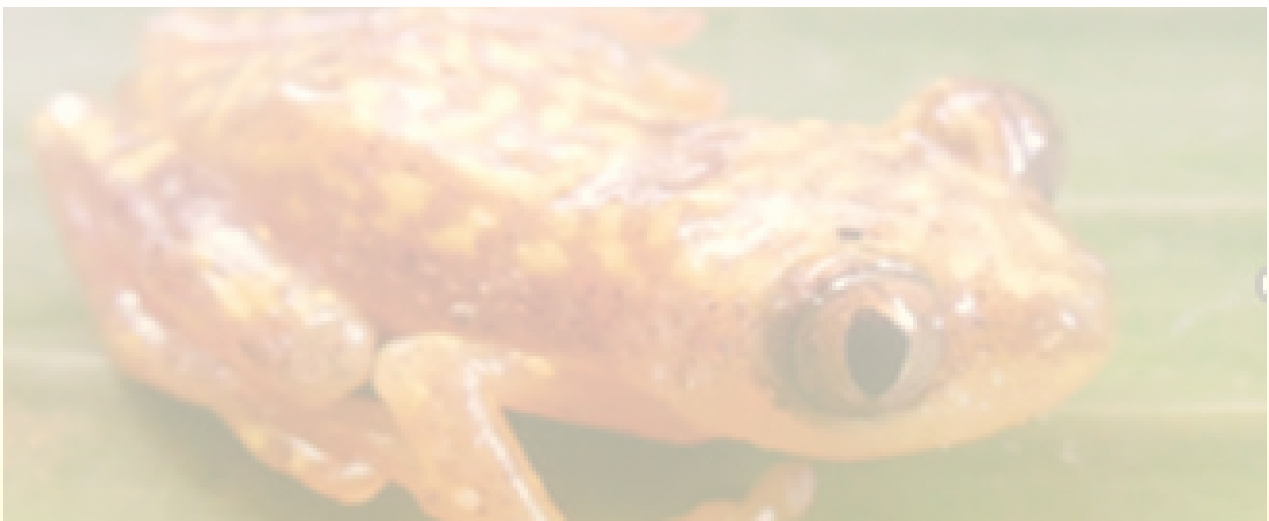


Figure 42: Amphibian species richness in selected Protected Areas

Although the datasets are patchy, the evidence in this regard underlines the fact that while herpetofauna exhibits high species diversity (which may be difficult to quantify or to estimate according to its population), there are important knowledge gaps about species abundance and range. The scarcity of data and high percentage of species outside Protected Areas calls for more research and monitoring, to find effective conservation measures in the face of persistent environmental threats.





### Amphibian Species Richness

Uganda has 13 families and 33 genera of amphibians, all of them in one order - Anura (frogs and toads). Estimates of species richness vary greatly because of sampling and taxonomic difficulties. On average, 90 species of amphibians are found, comprising 1% of global species richness (Figure 43).

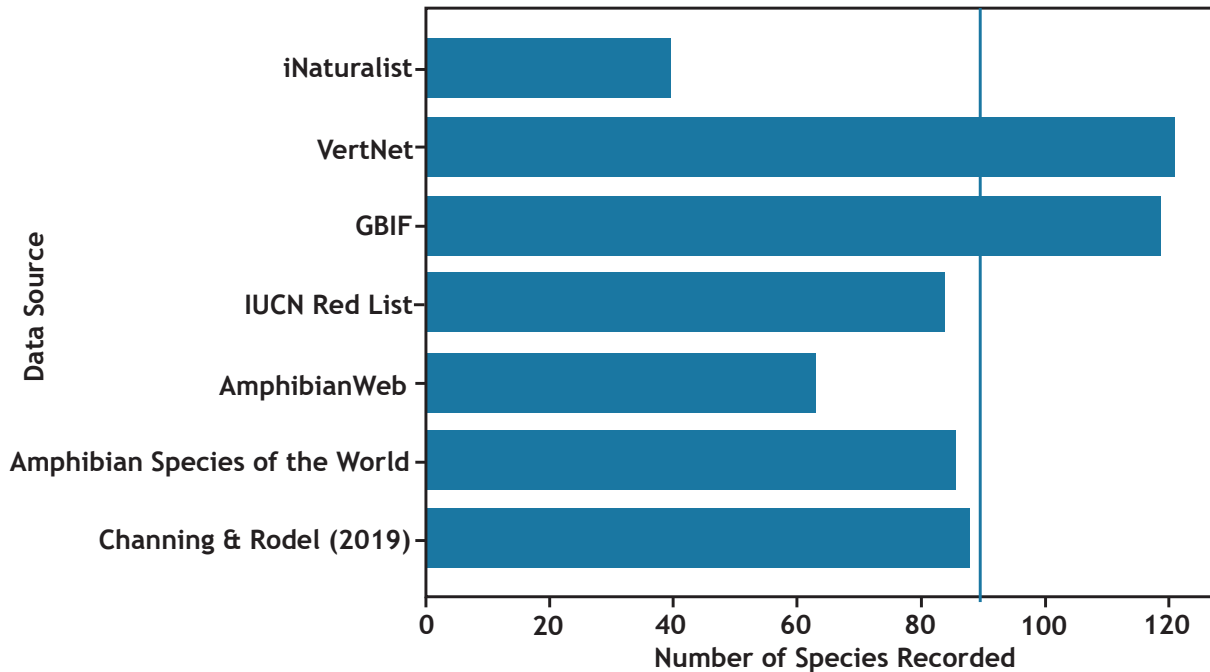


Figure 43: *Relative contribution of major datasets to Uganda's amphibian richness estimates (range 40-121 species, average =90).*

### Reptilian Species Richness

Reptiles of Uganda belong to three orders: Squamata (lizards and snakes), Testudines (turtles, tortoises, and terrapins), and Crocodylia (crocodiles), and comprise 24 families and 77 genera, with on average, 176 species. The average richness of reptiles is 176 species, accounting for 1.4% of the total diversity of reptiles worldwide (Figure 44).

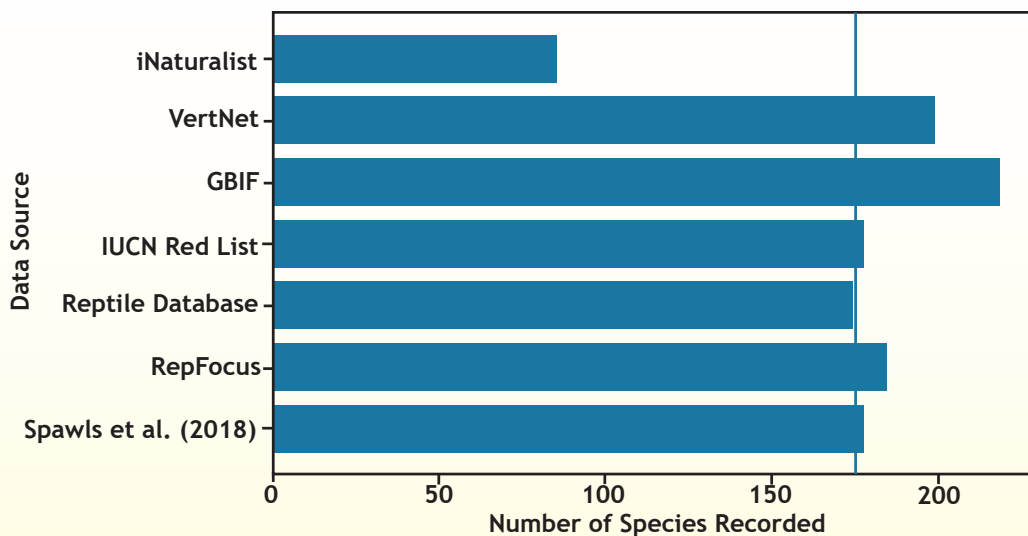


Figure 44: *Variation in reptile richness estimates across repositories (range 86-219 species, average ~176).*





### Conservation Status and Threats to Uganda's Herpetofauna

The conservation status of species informs and guides prioritisation for monitoring. For amphibians, only one species is listed as Critically Endangered, one as Vulnerable, two as Near Threatened, four as Data Deficient, seventy-five as Least Concern, and three remain Not Evaluated. Within reptiles, the category is one Critically Endangered, two Endangered, seven Vulnerable, seven Near Threatened, three Data Deficient, 151 Least Concern, and five Not Evaluated. These categorisations reflect the serious imperatives for directed conservation and enhanced population profiling in Uganda.

Adaptable species such as Nile Grass Frog (*Ptychadena nilotica*), Kivu Reed Frog (*Hyperolius kivuensis*), Senegal Kassina (*Kassina senegalensis*), Common Reed Frog (*Hyperolius viridiflavus*), Natal Puddle Frog (*Phrynobatrachus natalensis*), and Mababe Puddle Frog (*Phrynobatrachus mababiensis*) occur in a wide variety of habitats from wetlands and grassland to agricultural environments. But various species that live in limited, relatively underpopulated habitats such as that of the Albertine Rift, a high biodiversity and endemism region, are especially vulnerable. These range from Albertine Rift Tree Frog (*Leptopelis kivuensis*), Bequaert's Puddle Frog (*Phrynobatrachus bequaerti*), Rwanda Long Reed Frog (*Phrynobatrachus versicolor*), Müller's Clawed Frog (*Xenopus muelleri*), and Kivu Clawed Frog (*Xenopus vestitus*). A few amphibians inhabit montane forests or wetlands, making them more vulnerable to habitat degradation due to environmental changes, climate impacts and anthropogenic activities.

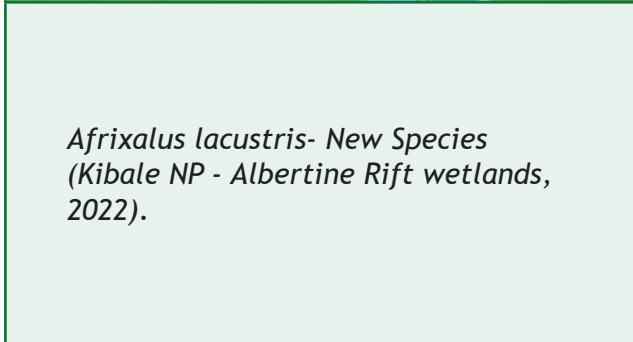
Reptiles are more widespread and present on Uganda's varied ecosystems, such as forests, wetlands and savannas. The Speckled-Lipped Skink (*Trachylepis maculilabris*), Striped Skink (*Trachylepis striata*), Forest Cobra (*Naja melanoleuca*), Olive Marsh Snake (*Natriciteres olivacea*), Olive Grass Snake (*Psammophis mossambicus*), Montane Side-striped Chameleon (*Chamaeleo ellioti*), Flap-necked Chameleon (*Chamaeleo dilepis*), Blue-headed Tree Agama (*Acanthocercus atricollis*), and Nile Monitor (*Varanus niloticus*) exhibit some adaptability to habitat alterations. *Figure 45* shows a cross-section of some herpetofauna in Uganda.

Habitat reduction and fragmentation due to agricultural expansion, wetland drainage, logging, and human encroachment pose primary threats, particularly outside Protected Areas, where more than 70% of Uganda's herpetofauna reside (WCS 2026). Species with limited ranges or localised distributions, such as those found in wildlife hotspots, like the Albertine Rift, are particularly susceptible to chronic habitat degradation and climate-induced changes. Given this, conservation approaches should integrate the protection of areas studied with the expansion of the research and conservation of understudied areas, for the future of Uganda's rich herpetofaunal diversity.





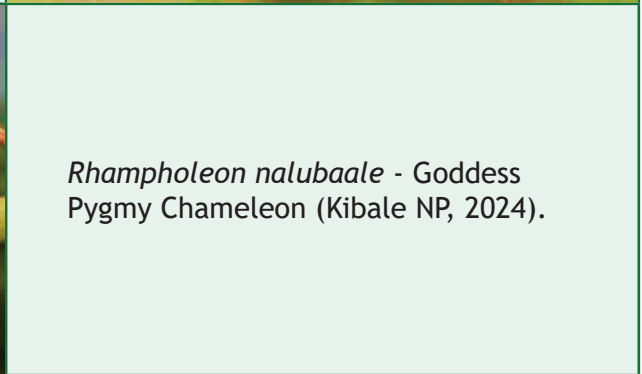
*Rhampholeon plumptrei* - Plumptre's pygmy chameleon (Mabira Forest, 2024)



*Afrixalus lacustris*- New Species (Kibale NP - Albertine Rift wetlands, 2022).



*Rhampholeon nalubaale* - Goddess Pygmy Chameleon (Kibale NP, 2024).



*Lygodactyluskaramoja* -New Species (Northern Uganda, 2024).



Figure 45: *Some Herpetofauna species found in Uganda. (Photos Dany Hughes)*



### Population Trends of Crocodiles in Uganda

With the exception of the Nile Crocodile, no population studies have been conducted on herpetofauna in Uganda. Population surveys have been done only for the Nile crocodile *Crocodylus niloticus* by different researchers since 1960's, specifically for the section of the Victoria Nile between the delta and the Murchison Falls National Park (MFNP).

Crocodile populations in other parts of the Country e.g. on Kyoga Basin lakes, Lake Victoria, Lake Mburo (Figure 46), Kazinga Channel and Lake Edward have received little attention, yet crocodile - human wildlife conflicts have been frequently reported in the media.

Nile Crocodile population counts between Victoria Nile, Murchison Falls National Park and Albert Nile have been studied since the 1950's by Pitman (1952), Cott (1961, 1968, 1969), Parker (1969), Parker and Watson (1970), Baguma et al. (1996, 2014) and Behangana, et al. (2014 and 2017). The most recent study was by Amanyanganya, S. 2023, which reported a total of 1,110 crocodiles occurring in Victoria Nile, Albert Nile, Murchison Falls National Park and Lake Victoria.

Longterm monitoring of Nile crocodile shows overall decline since the 1960s, with localised recovery in Victoria Nile (Figure 47).



Figure 46: Nile crocodiles (*Crocodylus niloticus*) (Photo: Juliet Mirembe)



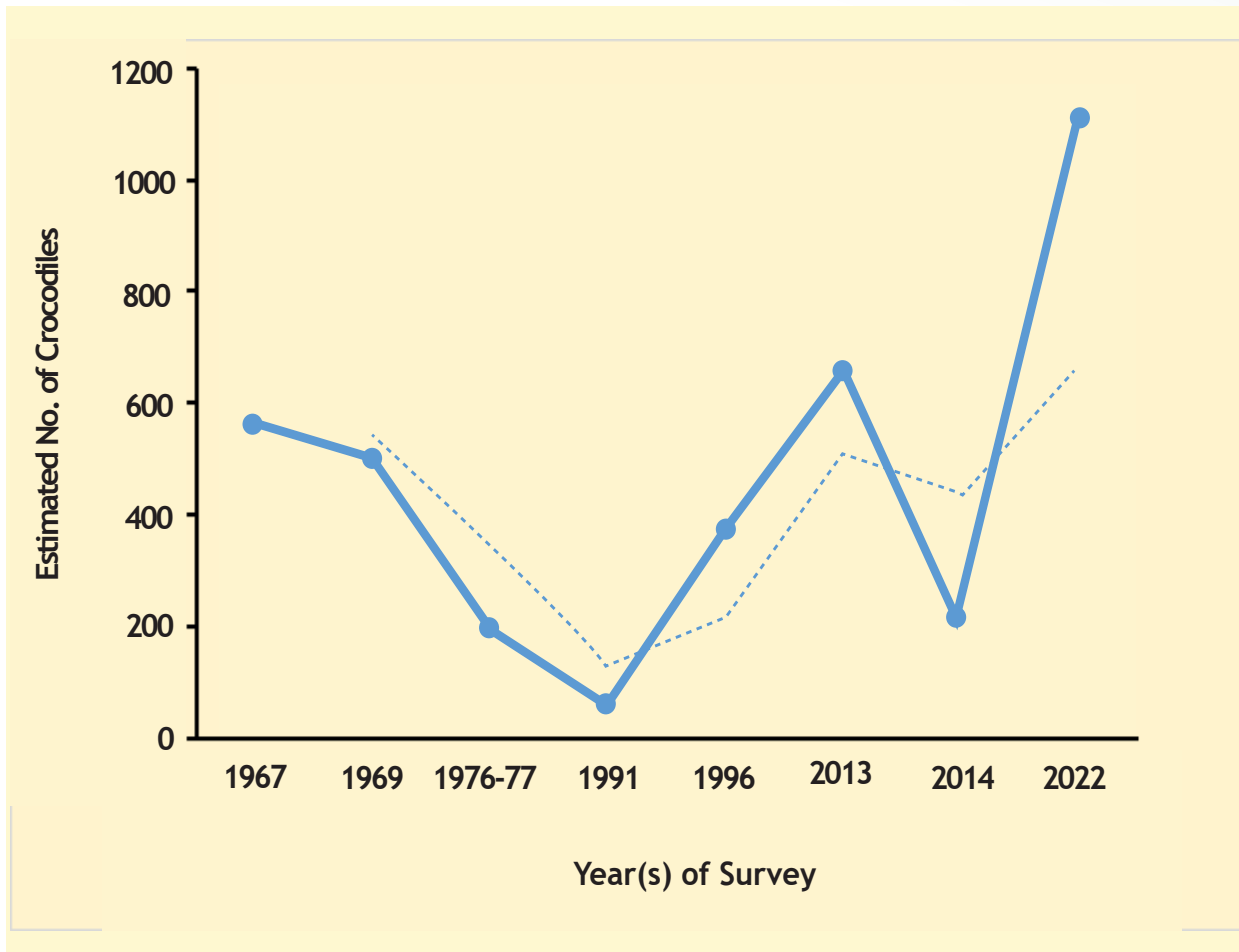


Figure 47: Nile Crocodile population trends (1967-2022)

### 3.5 Status of Avifauna (Birds) in Uganda

Uganda holds about 1,060 species (NatureUganda 2019), which represents about 48% of Africa’s, and about 10% of the global avian fauna. Of Uganda’s bird species, 24 (2.3%) are Globally Threatened, 29 (2.7%) are Near threatened, while majority are currently classified as Least Concern. Of these species, about 800 (75.5%) are resident species and about 238 are migratory (Carswellet al 2005). The migrant species include 137 Palearctic ones (these breed in the Palearctic region but are found in Uganda in the northern winter, typically between October and March), 56 Afro-tropical migrants (these complete their journeys within Afro-tropical region), 189 Forest specialists (FF) and 160 Water specialists (W) (Carswell et al. 2005).

Birds in Uganda are classified into three; landbirds, water birds and sea birds, and migratory bird species, with majority being land birds followed by waterbirds and few sea birds (Figure 48). According to Carswell et all (2005), species are further re-classified based on habitat categories, where about 18% are forest interior species (FF), 12% are forest dependant species and 10% are forest edge species (f). A further 23% of the total species are classified as water or wetland related species.



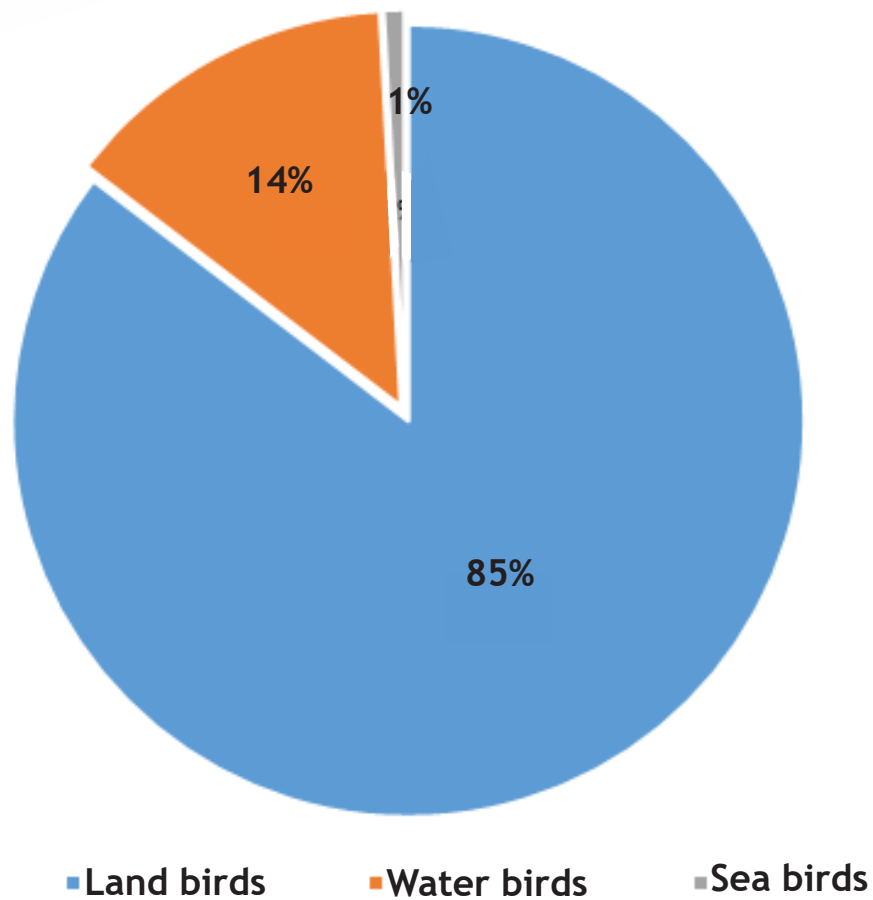


Figure 48: *Distribution of birds in Uganda by general environmental condition*

### Land birds

Almost 900 (85%) of the bird species recorded in Uganda are land birds (Figure 49). However, the number of species being sighted has been decreasing steadily over the years (Figure 50).



Figure 49: *Land birds. (Left and middle Photos: Phillip Chaon; Right: Turyashemererwa Alex)*



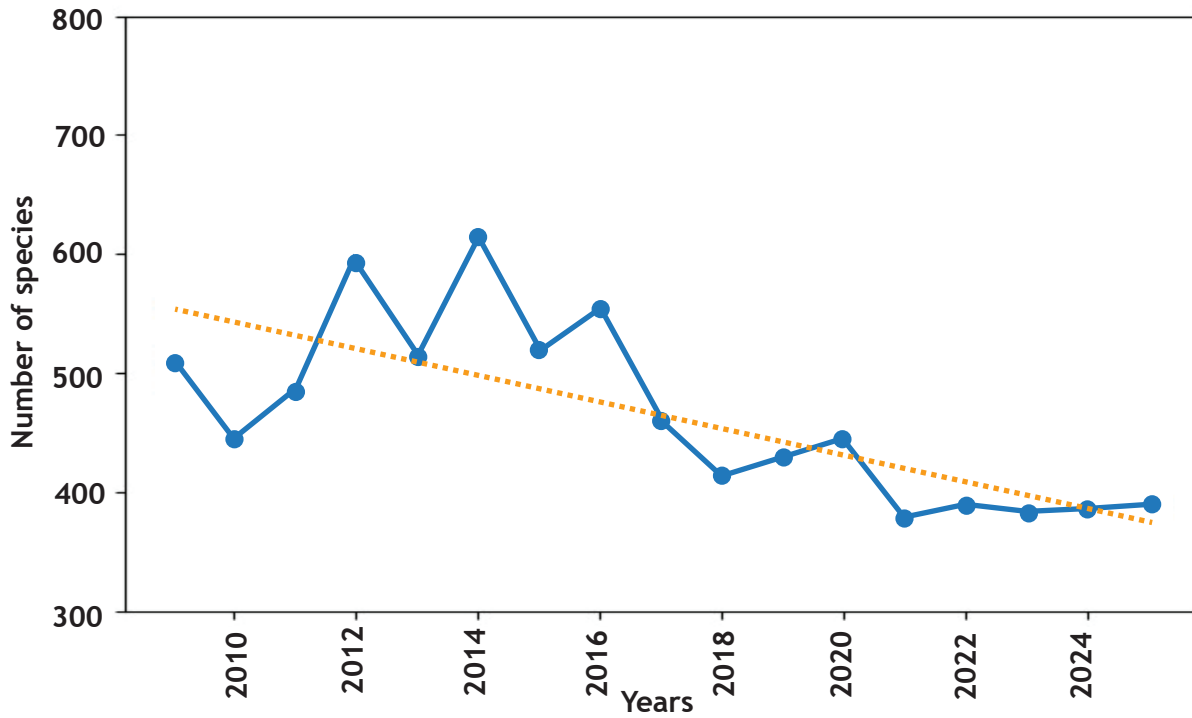


Figure 50: *Records of land bird species between 2009 and 2025. (SOURCE: Nature Uganda monitoring data)*

### Migratory Birds Species

There are about 238 migratory species, including about 137 Palearctic Migrants (PM) and 56 Afro-tropical Migrants (AM). The PM occur in Uganda typically between October and March, while the AM species complete their migration journeys within the Afro-tropical region. Some species, such as Black kite, are both PM and AM. Surveys between 2005 and 2025 show a declining trend in number of sighted migratory bird species in Uganda (Figure 51).

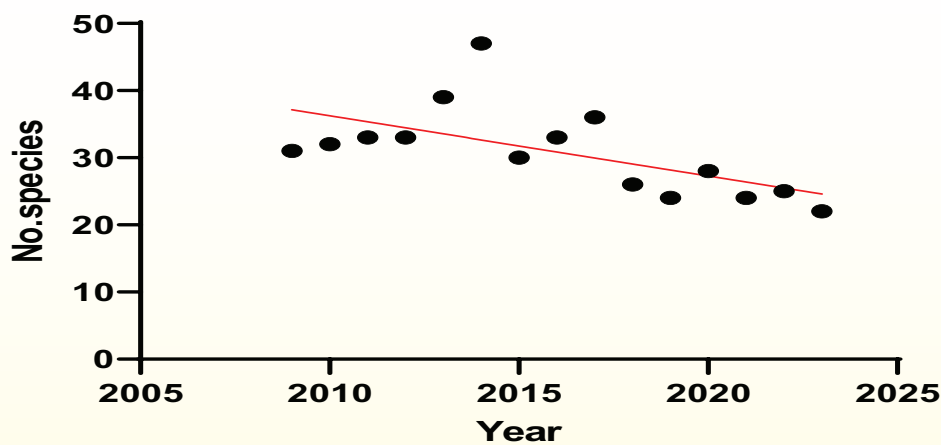


Figure 51: *Records of Palearctic Migrant species between 2005 and 2025. (SOURCE: Nature Uganda monitoring data)*





### Water birds

Uganda holds about 160 water bird species (Carswell et al 2005), of these, 89% are categorised as water specialists and 10% are categorised as water dependant species. The sighted number of species has in general shown stable trends (Figure 52)

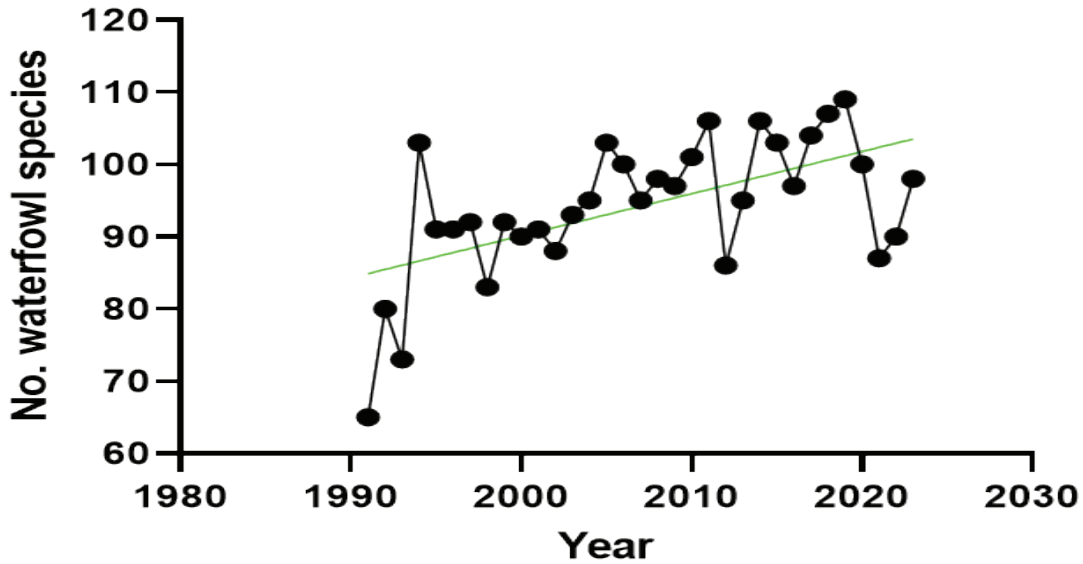


Figure 52: *Records of water birds over time. (SOURCE: Nature Uganda monitoring data)*

### Endemic Bird Species

The Fox’s Weaver *Ploceus spekeoides* (NT) and the Karamoja Apalis *Apalis karamojae* (VU) are the only two Uganda’s endemic bird species (Onongo et al.2025; Jombella et al., 2024) (Figure 53). The Fox’s Weaver is a small passerine confined to seasonally flooded wooded grasslands and wetland mosaics dominated by whistling-thorn(*Vachellia drepanolobium*) in north eastern Uganda particularly around lakes Bisina and Opeta, and Wildlife Reserves of Pian-Upe, Bokora and Matheniko (Onongo et al.2025; NatureUganda, 2012).



Figure 53: *Left the Karamoja Apalis and Right the Fox’s Weaver. (Photo Credit: Jonathan Onongo).*





Similarly, the Karamoja Apalis inhabits seasonally wet grasslands dominated by whistling-thorn and was recently recognized as a distinct species separate from *Apalis stronachi* of southern Kenya and northern Tanzania (Jombela et al 2024). While the largest populations of both species are found on privately owned or community-managed lands. Protected areas including Bokora, Matheniko, and Pian-Upe Wildlife Reserves provide crucial habitats that help sustain their populations in relatively intact whistling-thorn grasslands (Onongo et al.2025; 2021). Also, whistling-thorn acacia (*Vachellia drepanolobium*) which is the preferred nesting by both species is frequently cut for firewood and cleared for farmland within its limited range in Uganda (Onongo et al.2025; 2021)

## Threatened species

Globally Threatened species found in Uganda include nine endangered species, notably; White-backed Vulture (Critically Endangered), Rüppell's Vulture (Critically Endangered), Hooded Vulture (Critically Endangered), the Grey-crowned Crane (Endangered), Shoebill (Vulnerable), alongside 15 Vulnerable species. *Figure 54* shows Ruppell's Vulture and Shoebill, both globally and nationally threatened species in Uganda, while table 4 shows population estimates and major threats to selected threatened species in Uganda.



Figure 54: *Ruppell's Vulture* in Murchison Falls National Park left. (Photo: Micheal Kibuule) and Shoebill in Mabamba right. (Photo: Phillip Chaon)





## Grey-crowned Crane

Uganda conducted its first countrywide census of the Grey Crowned Crane (*Balearica regulorum*), the national bird of Uganda, from 9<sup>th</sup> August to 9<sup>th</sup> September 2023 to establish an updated baseline on its population size, distribution and threats. The census was implemented through a collaboration involving the International Crane Foundation, Endangered Wildlife Trust, Uganda Wildlife Authority, Wildlife Clubs of Uganda and Meaningful Empowerment for Change and Poverty Alleviation (MECPA), with support from district local governments and community members. The survey targeted crane habitats outside Protected Areas, particularly wetlands, agricultural landscapes and community lands where cranes interact closely with people (*Figure 55*). Field teams conducted ground-based surveys. In total, 1,305 locations across 131 of Uganda's 135 districts were visited during the census period.



Figure 55: A flock of Grey-crowned cranes in a wetland (Photo: International Crane Foundation)

The census recorded a population of 10,077 Grey Crowned Cranes in Uganda, with cranes observed in 846 sites (65% of surveyed locations) (*Figure 56*). Nearly half of the population (46%) occurred in the Western region, followed by 36% in the Central region, making these two regions the main strongholds for the species. The south-western districts of Lwengo, Isingiro and Mbarara are the most important hotspots, collectively hosting more than 2,100 cranes (about 21% of the national population). Other districts with significant populations included Kassanda, Kalungu and Ibanda. Habitat analysis showed that cranes primarily occupied crop fields (37.6%), wetlands (28.2%) and dairy farms (22.1%), indicating strong adaptation to human-dominated landscapes where feeding opportunities are available.

Despite Uganda holding a large share of the global population, Grey Crowned Cranes face increasing threats across their range.

The main drivers of decline include loss and degradation of wetlands and grasslands due to agricultural expansion, which reduces nesting and feeding habitats.

Additional threats include poisoning from agricultural chemicals, collisions with power lines, and illegal capture of eggs, chicks or adults for captivity and trade. The census also documented cases of cranes being kept in captivity in various facilities, highlighting the need for stronger enforcement against illegal pet trade. Addressing these threats through wetland protection, regulation of crane captivity, community awareness and habitat restoration is critical for securing the future of this endangered species in Uganda.







population declines. Conservation actions led by NatureUganda and partners focus on wetland protection, community awareness, and monitoring within Important Bird Areas to safeguard these critical habitats.

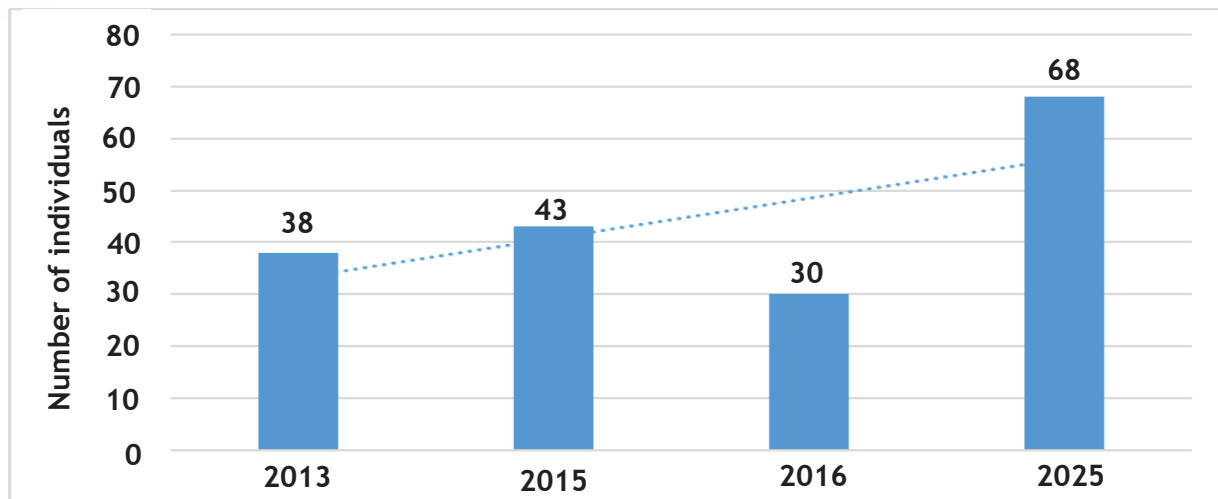


Figure 57: *The population trend of Grauer's Swamp Warbler, 2013-2025 (Source: NatureUganda report, 2024)*

Table 4. *Population estimates, distribution and threats of key threatened bird species*

Species	Estimated population in Uganda	Spatial distribution in Uganda	Major threats	Source
White-backed Vulture	Estimated 2,000-3,000 individuals nationally (declining)	Mainly in savannah Protected Areas including Murchison Falls National Park, Queen Elizabeth National Park, Kidepo Valley National Park, and surrounding rangelands	Poisoning from predator control and contaminated carcasses, habitat degradation, collision with power infrastructure, decline in large mammal carcasses	BirdLife International (2024); Nature Uganda - State of Birds in Uganda (2026); Global Raptor Impact Network (2023)
Rüppell's Vulture	Estimated few hundred individuals in Uganda (locally uncommon)	Primarily in Karamoja and northeastern savannah landscapes, including Kidepo Valley National Park, Pian Upe Wildlife Reserve, and surrounding rangelands	Poisoning, reduced prey base due to decline in wild ungulates, disturbance at nesting cliffs, electrocution and collisions with power lines	BirdLife International (2024); Global Raptor Impact Network (2023); Nature Uganda Raptor Monitoring Reports (2025)
Hooded Vulture	Estimated several hundred individuals, mostly urban-associated populations	Occurs in urban and peri-urban areas including Kampala, Masaka, Mbarara, as well as markets, abattoirs, and landfill sites	Poisoning, persecution due to cultural perceptions, illegal wildlife trade for belief-based use, changes in waste management systems	BirdLife International (2024); Nature Uganda - State of Birds in Uganda (2026); Ogada et al. African Vulture Crisis Review (2016)





Shoebill	Estimated 1,000-1,500 individuals nationally	Mainly in large papyrus wetlands including Mabamba Bay Wetland, Lutembe Bay Wetland, Sango Bay-Musambwa Islands-Kagera Wetland System, and wetlands along the Albert Nile system	Wetland drainage and degradation, disturbance from fishing and tourism activities, illegal capture for wildlife trade, climate-driven habitat changes	BirdLife International (2024); Ramsar Site Information Service (2023); Nature Uganda Wetland Bird Monitoring (2025)
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### 3.6 Status of Mammal Species in Uganda

Uganda has a remarkably high species diversity of mammals, and these are spread through a mosaic of ecosystems, both inside and outside gazetted Wildlife Protected Areas. These environments span savannah landscapes, tropical forests, wetlands and montane ecosystems to agricultural and community-managed landscapes giving crucial ecological connectivity. The exact total number of mammal species of Uganda has not yet been ascertained. However, considering the recent discoveries such as the bat species *Pseudomormocia kityoi* known from Mabira CFR, and the Short palate fruit bat (*Casinycteris argynnis*) and De Winton’s long-eared serotine (*Laephotis wintoni*), but also taxonomic revision in some species including elephant (two distinct species - see status and trends of elephants in Uganda on page 61), lion (two subspecies - *Panthera leo leo* and *P. l. melanochaita*), zebra, Uganda kob, buffalo and bushbuck, the country is currently believed to have 342+5=347 mammal taxa (species and infraspecific ranks to subspecies level). Protected Areas such as National Parks, Wildlife Reserves and Forest Reserves continue to be the main habitats of this nature for large and medium mammals, among them elephants, buffaloes, giraffes, lions, rhinoceroses, zebras, bushbucks and great apes.

Uganda is home to some rare and elusive mammals such as: the white-bellied pangolin, giant pangolin, Temminck’s ground pangolin, low-land bongo, Bate’s pygmy antelope, African golden cat, red river hog, chequered giant sengi, aardvark, African crested porcupine, Pousargues’s mongoose, and Water Chevrotain. The country is also a home of important Albertine Rift endemic species, including the mountain gorilla, and a number of endemic or near-endemic small-mammal species closely associated with montane forests.

Many of these species also live outside Protected Areas, especially in wildlife corridors, and community lands and fragmented forests, where ecological mechanisms persist beyond the limited conservation boundaries. Uganda’s forests and wetlands are also home to many species of small mammals, including rodents, shrews and an unusually diverse group of bats, which play essential ecological roles in pollination, seed dispersal and insect population control. Collectively, these mammal populations feed a big part of nature, tourism and natural resources in the country.

This report focuses on the state, population trends and spatial distribution of small, medium and large mammals in Uganda, both inside and outside Protected Areas. For medium and large mammals, population estimates are primarily derived from national and landscape-level Wildlife censuses conducted between 2022 and 2025 (Table 5). For species that were not counted within the report period, population estimates from 2021 status of wildlife resources reports were considered. For small mammals and elusive species, data from conservation partners and researchers was relied upon.



Table 5. Population estimates and trends of selected medium to large mammals in and around Gazetted Protected Areas

Species	2011-2014	2015-2017	2018- 2020	2021-2022	2023-2025	Population change 2022-2025
African Elephant	5,739	5,808	7,975	6,621	6,352	-269
Bright's Gazelle	57	57	750	756	756	0
Buffalo	36,953	37,054	44,163	32,235	41,548	9,313
Burchell's Zebra	11,888	11,897	17,516	17,762	20,942	3,180
Chimpanzee	5,000	5,000	5,072	5,072	6,075	1,003
Common Eland	1,351	1,742	2,492	3,510	3,619	109
Gorilla	400	400	459	459	459	0
Greater Kudu			206	206	206	0
Hartebeest	9,667	9,841	17,274	8,154	10,414	2,260
Hippopotamus	5,838	5,838	10,165	8,226	9,026	800
Impala	33,565	33,565	53,636	22,356	37,735	15,379
Lesser Kudu			806	806	806	0
Lion	493	493	373	314	291	-23
Ostrich			1,856	1956	1412	-542
Roan Antelope		118	190	352	352	0
Nubian Giraffe	880	880	2,072	2,414	2,519	105
Southern White Rhino	17	22	35	43	61	18
Topi	2,222	2,222	2,713	1,805	3,809	2,004
Uganda Kob	77,759	74,702	175,590	166,526	175,109	8,583
Waterbuck	12,222	12,809	22,244	16,638	22,623	5,985
Oribi				13,851	11,005	-2,846
Common Duiker				19,384	19,396	12
Warthog				14831	18,652	3,821
Giant Forest Hog				741	741	0
Bushbuck				3,779	3,676	-103
Leopards	493	-	-	-	328	-165
Common Reedbuck				449	982	533
Mountain Reedbuck					25	25





### Status and Trend of Nubian Giraffe in Uganda

Uganda is home to the critically endangered Nubian Giraffe (*Giraffa camelopardalis camelopardalis*), a Critically Endangered subspecies (Wube et al. 2018) of the northern Giraffe. Formerly known as the Rothschild’s Giraffe (*Giraffa camelopardalis rothschildi*), it was reclassified in 2025 by the IUCN SSC Giraffe and Okapi Specialist Group (GOSG) as part of the northern Giraffe species. These giraffes occur in four Protected Areas: Murchison Falls National Park (MFNP), Kidepo Valley National Park (KVNP), Pian Upe Wildlife Reserve (PUWR), and Lake Mburo National Park (LMNP) ( Figure 58).

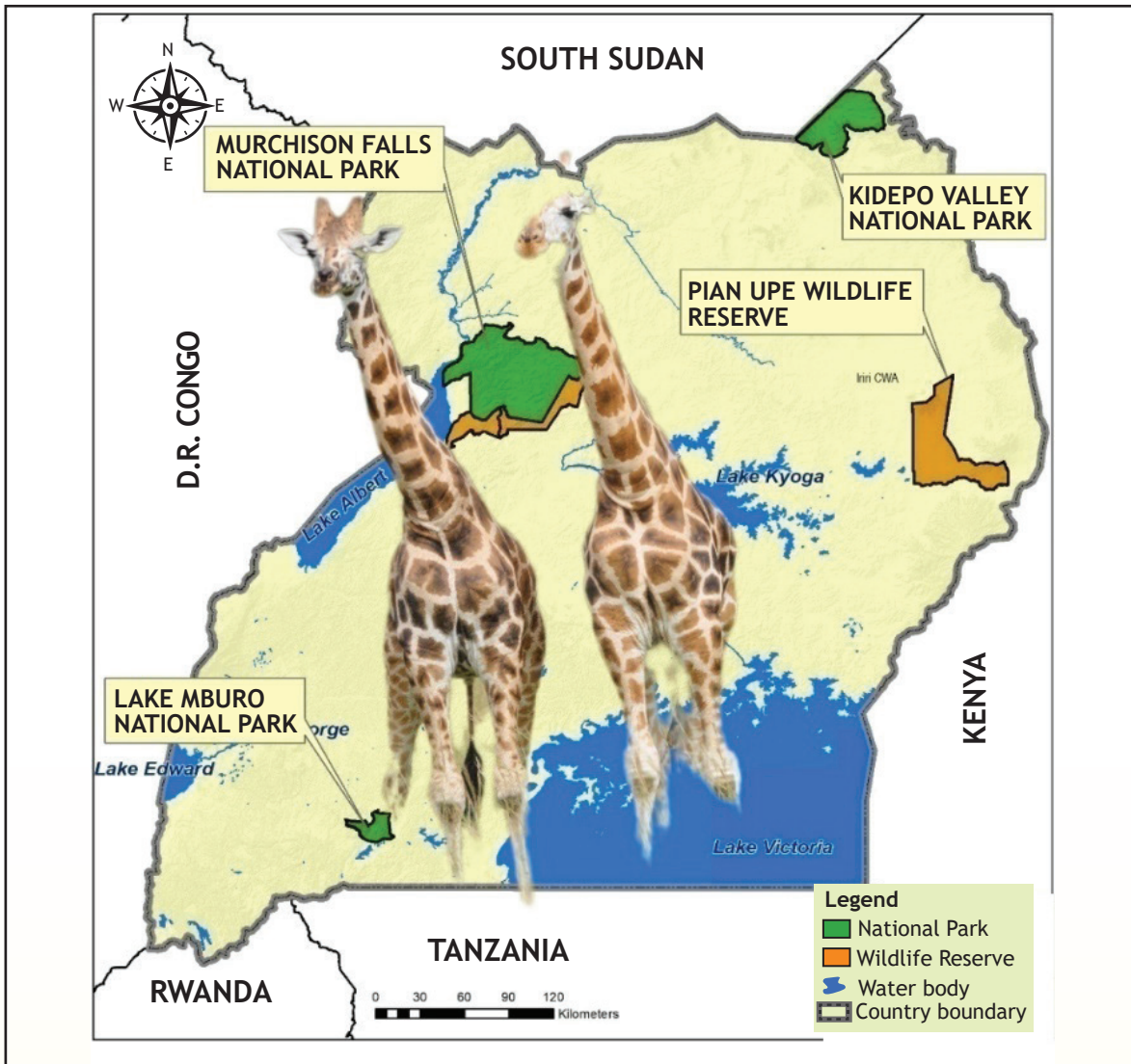


Figure 58: Protected Areas with Nubian Giraffe in Uganda

As of the 2023-2025 surveys, Uganda’s total Nubian Giraffe population stands at 2,519 individuals. Populations are monitored using individual-based photographic surveys that employ pattern recognition software to identify each giraffe by its unique spot pattern. The largest population is in MFNP (n=2,250). The decline noticed in MFNP between 2023 and 2025 could be the ecological change in habitat affecting visibility in a greatly invaded park rather than biological loss. Historically restricted to the northern sector, MFNP saw translocations of 18 individuals in 2016 and 19 in 2017 to the southern bank, leading to range expansion and population increase. In LMNP, giraffes had been extinct locally for more than a century before being reintroduced in 2015 with 15 individuals from MFNP. Their numbers grew to 52 individuals by 2023 and 64 by





2025. KVNP's population was nearly lost in the 1990s. A boost came in 2018 with 14 individuals translocated from MFNP, and by 2025 the population reached 163 giraffes, showing a sustained upward trend.

In PUWR, the population was re-established in 2019 with 14 giraffes from MFNP. The population increased from 35 in 2023 to 42 by 2025. In general, the giraffe populations are showing a steady increase across the parks (Figure 59), also as reported by Marneweck et al. (2025). The recorded decline in Murchison Falls National Park is currently attributed to the survey method which is dependent on what has been and photographed within the survey period.

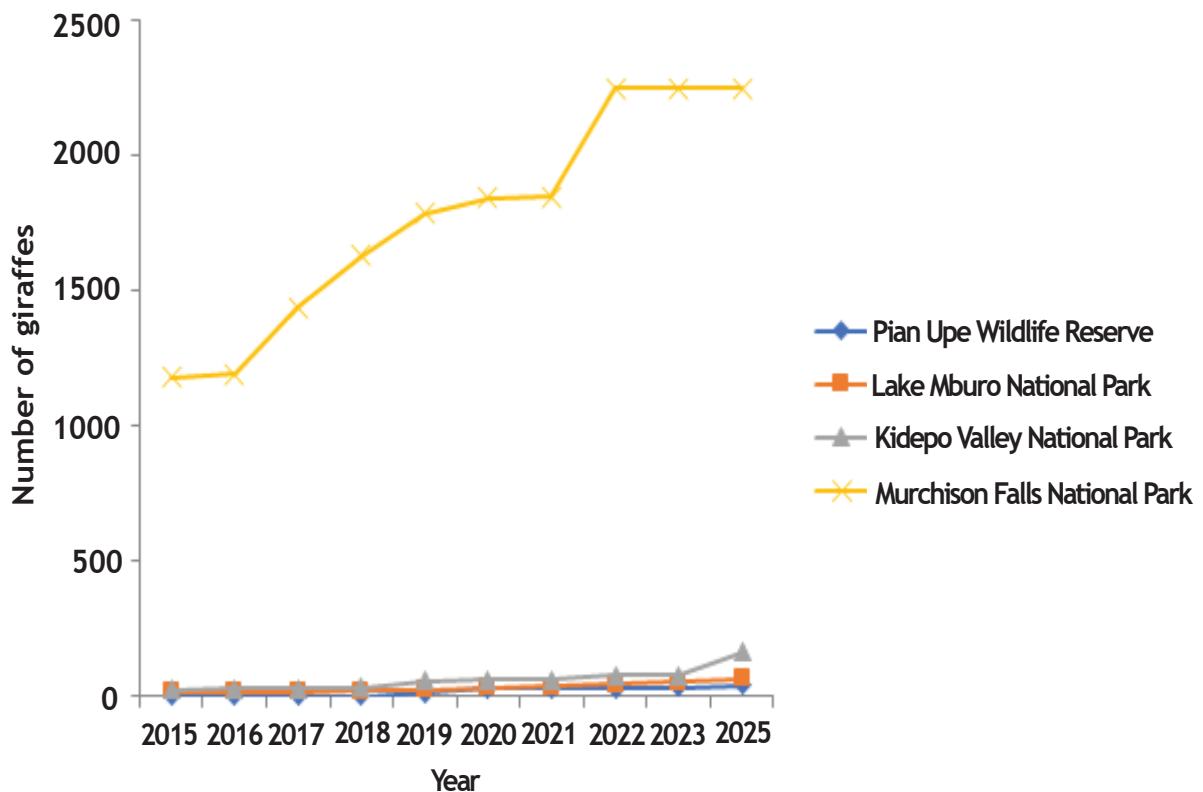


Figure 59: Population trends of giraffe in Protected Areas

### Status and Trends of Elephant in Uganda

Uganda is home to two elephant species: the African savannah elephant (*Loxodonta africana*) and the African Forest Elephant (*Loxodonta cyclotis*). On the Uganda National Red List, both species are classified as Critically Endangered, while globally the savanna elephant is assessed as Endangered (Gobush et al. 2022), while the forest elephant is Critically Endangered (Gobush et al. 2021). Elephants are distributed across several ecosystems in the country, with significant populations occurring in Murchison Falls National Park, Queen Elizabeth National Park, Kidepo Valley National Park, Kibale National Park, Bwindi Impenetrable National Park, Semuliki National Park, Toro-Semliki Wildlife Reserve, Katonga Wildlife Reserve and Rwenzori Mountains National Park (Figure 60). Occasionally, we receive a population in Mount Elgon National Park from Kenya but these come in seasonally and go back.



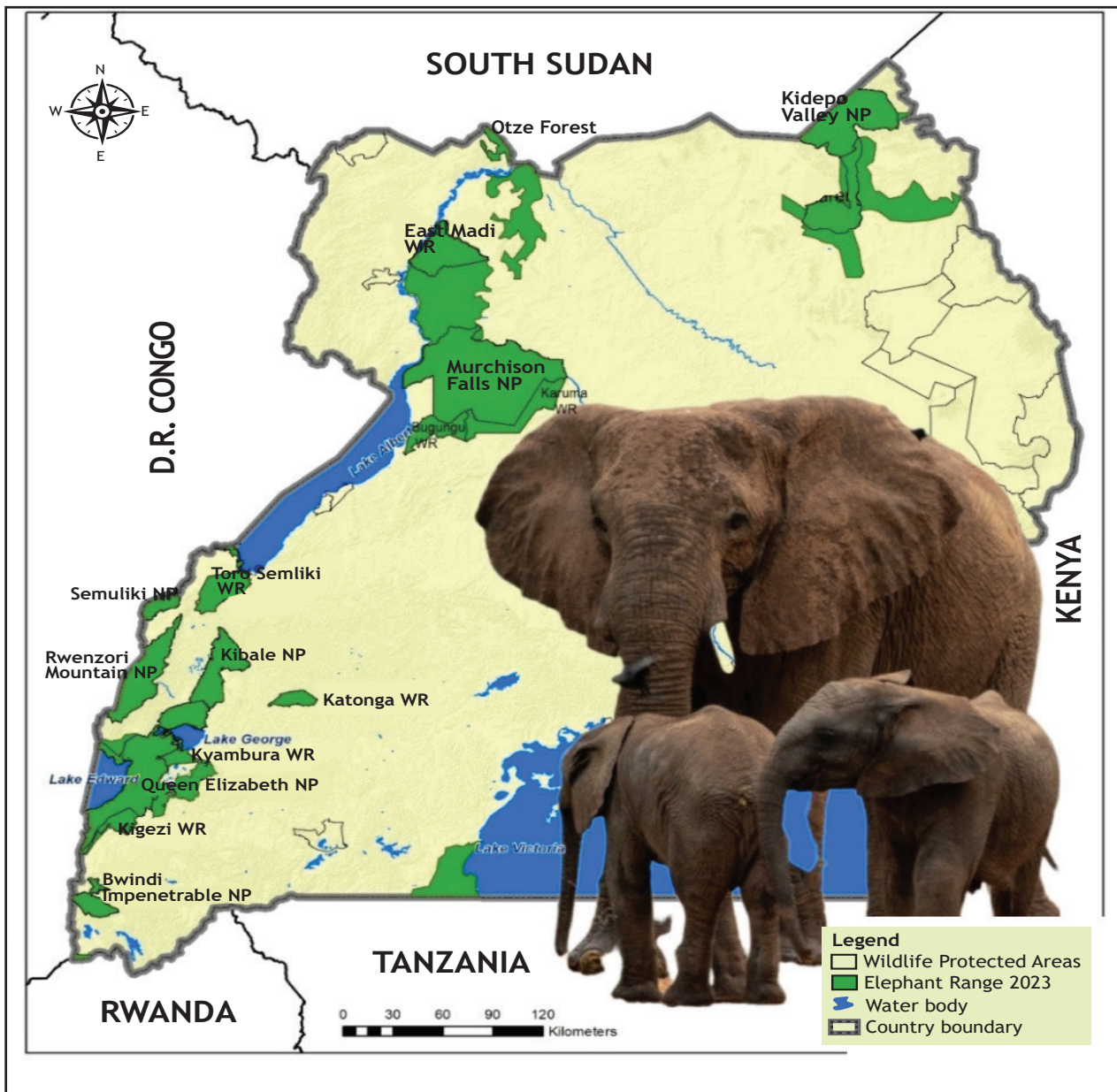


Figure 60: *Protected Areas with elephants*

As of 2023-2025, Uganda’s elephant population is estimated at 6,352 individuals, compared to 6,621 recorded in 2021-2023, indicating a slight downward trend of 4.06% (Figure 61). The largest populations occur in the Queen Elizabeth Protected Area (QEPA), followed by the Murchison Falls Protected Area (MFPA). A recent survey in Kibale National Park (UWA, 2025) showed an increase in Forest elephants from 566 in 2019 to 703 in 2025.



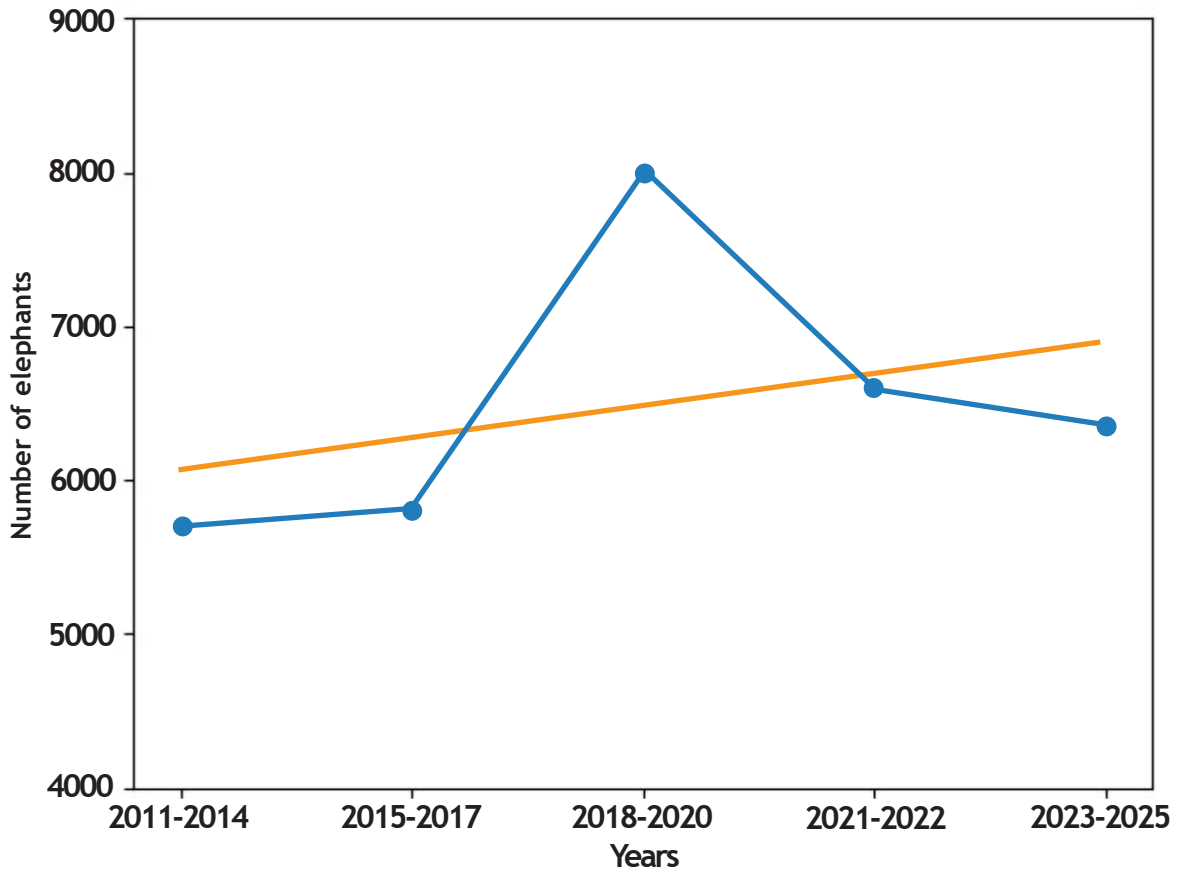


Figure 61: *Elephant population trend from 2011 to 2025.*





The decline highlights ongoing migrations into the neighbouring countries, occupation of community areas in Karamoja where they are not counted during surveys and limited poaching. Around KVCA, elephants have established permanent niches outside KVCA where they launch crop raiding missions making KVCA a hot spot for HWC. Other collared elephants have been recorded on UWA's EarthRanger to have migrated into Kenya (Figure 62).

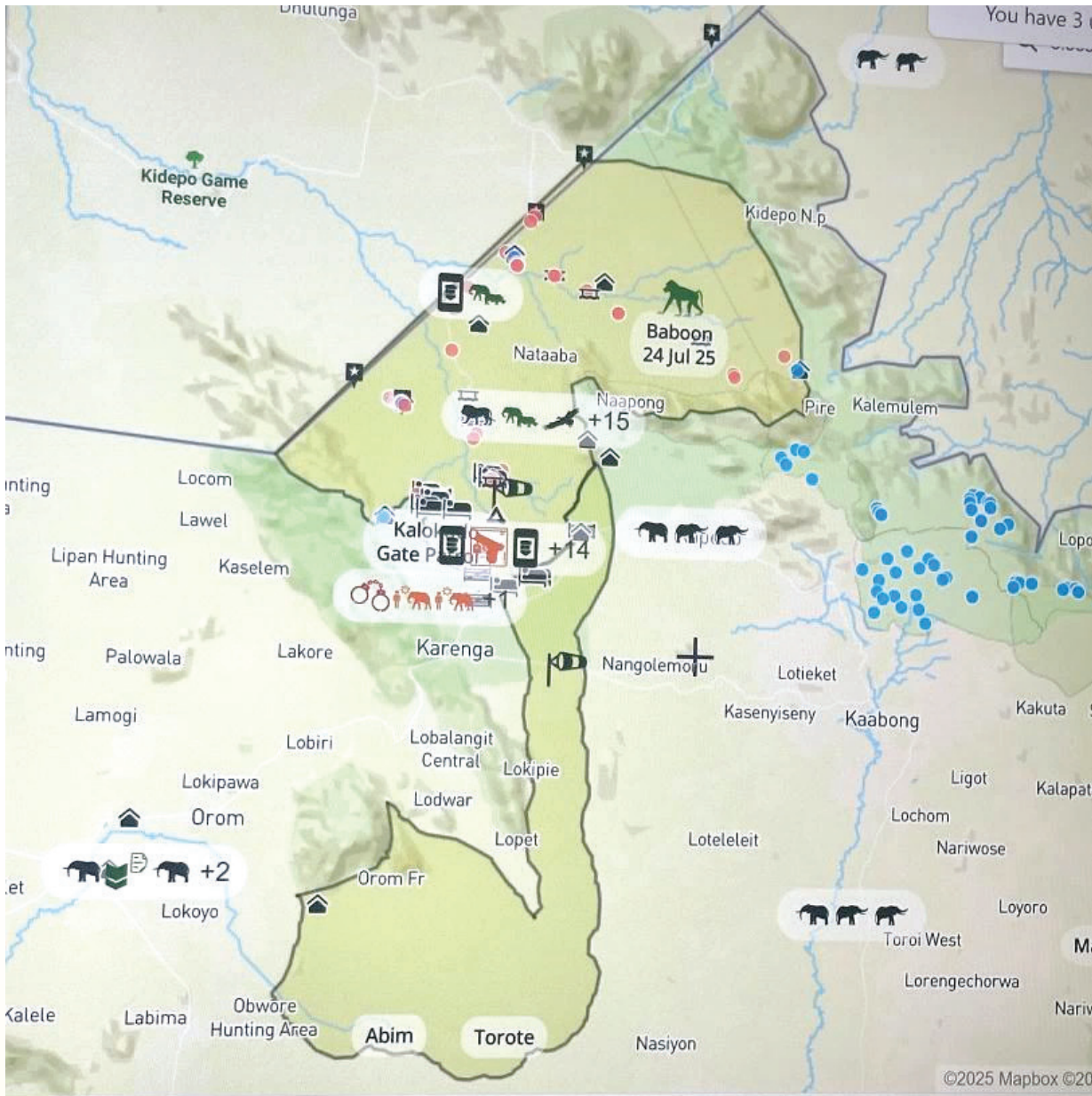


Figure 62: Collared elephants outside KVCA and across the borders in Kenya





### Status and population trends of Buffalo in Uganda

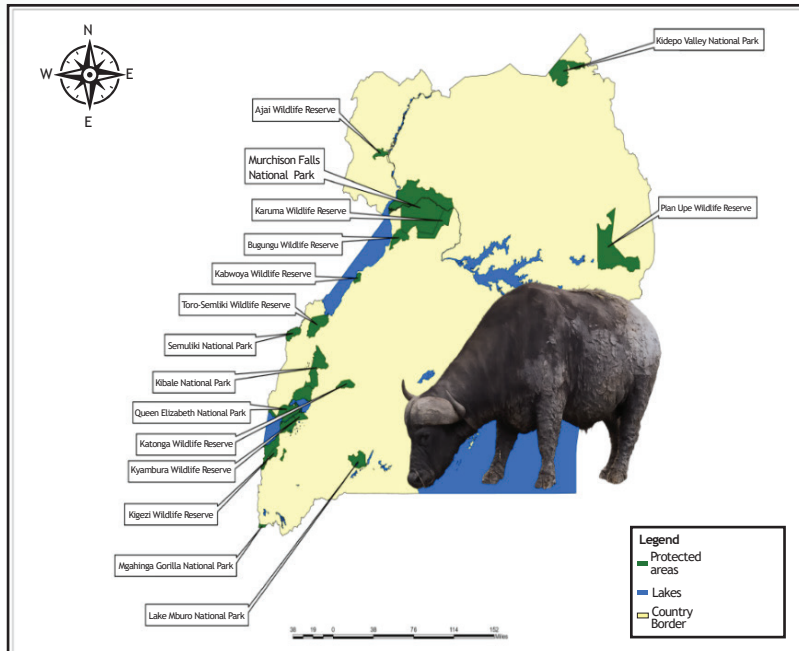


Figure 63: Protected Areas with Buffaloes

Buffaloes are a key species among Uganda’s iconic Big Five and are found in seven National Parks and nine Wildlife Reserves across the country (Figure 63). The Kidepo Valley National Park is the main buffalo stronghold, while Queen Elizabeth National Park, Murchison Falls National Park, and Lake Mburo National Park are the other areas that harbour significant buffalo populations. Population data from 2011 to 2025 shows a slight variation between the sub-periods. However, a healthy population growth rate of 8.8% per annum was observed from 2022 to 2025 (Figure 64).

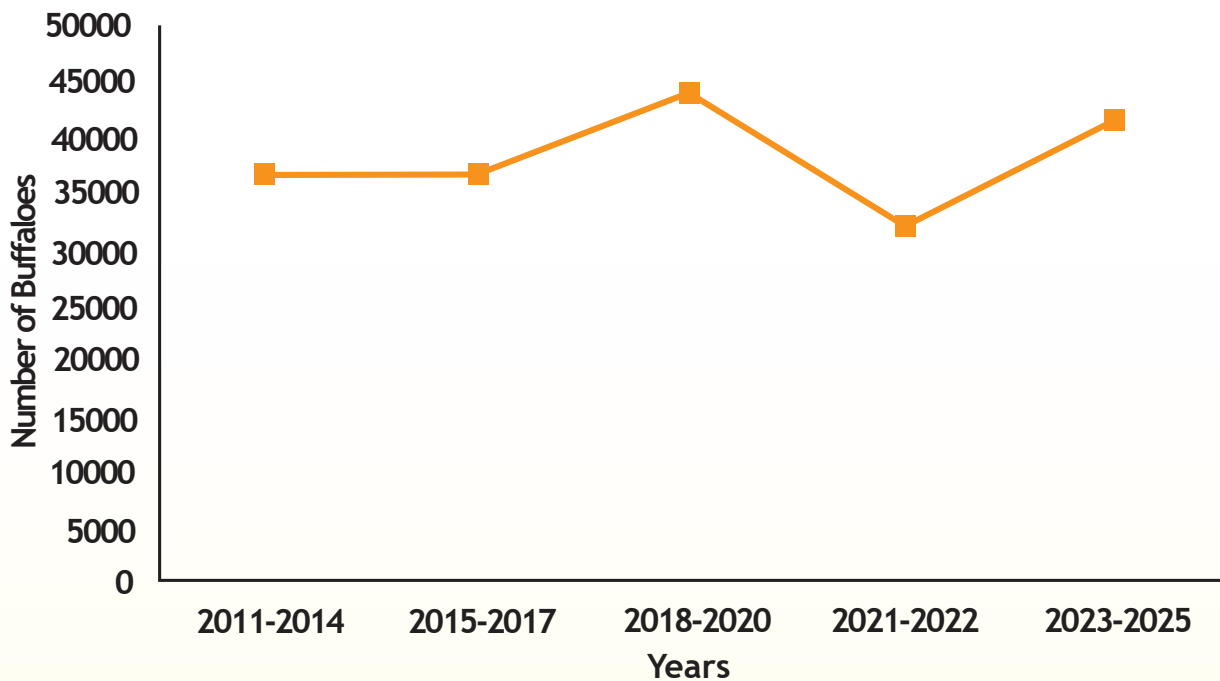


Figure 64: Buffalo Population trend from 2011 to 2025





### Status and Trends of Lion in Uganda

The lion (*Panthera leo*) is one of Uganda’s most iconic carnivores, yet it remains among the country’s most threatened large mammals. Lions are currently restricted to Queen Elizabeth National Park, Kidepo Valley National Park, and Murchison Falls National Park (Figure 65), where they play a vital ecological role as top predators. On the Uganda National Red List, lions are classified as Critically Endangered, while the IUCN Global Red List places them under the Vulnerable category.



Figure 65: Protected Areas with Lions

Uganda’s lion population has experienced a notable decline over the past five years, falling from an estimated 373 individuals in 2020 and 291 individuals in 2022/2023 census (Figure 66). This represents a 21.99% reduction nationally in over 3 years and 7.75% per annum. The decline has been most pronounced in Kidepo Valley and Queen Elizabeth National Parks while in Murchison Falls National Park the lion population has remained relatively stable. For Kidepo, the decline rate is significantly notable. In 2009, an abundance estimate suggested there were about 132





lions in KVNP. However, a survey conducted between August and December 2022 revealed a drastic reduction with an estimated population of 12 lions remaining in the park, indicating a 90.91% decline rate in 13 years. Main causes of the decline have been poisoning linked to livestock predation, snaring, and illegal trade in lion parts; cultural demands such as the lion skin, habitat degradation through colonisation and establishment of IAS and PNS, and encroachment pressures. In QENP, the decline rate in five years is 45.07% and 12.94% per annum. Main causes of the decline include, poisoning and trade in body parts. In December 2025, four lions were poisoned in QENP as a retaliatory action due to livestock predation.

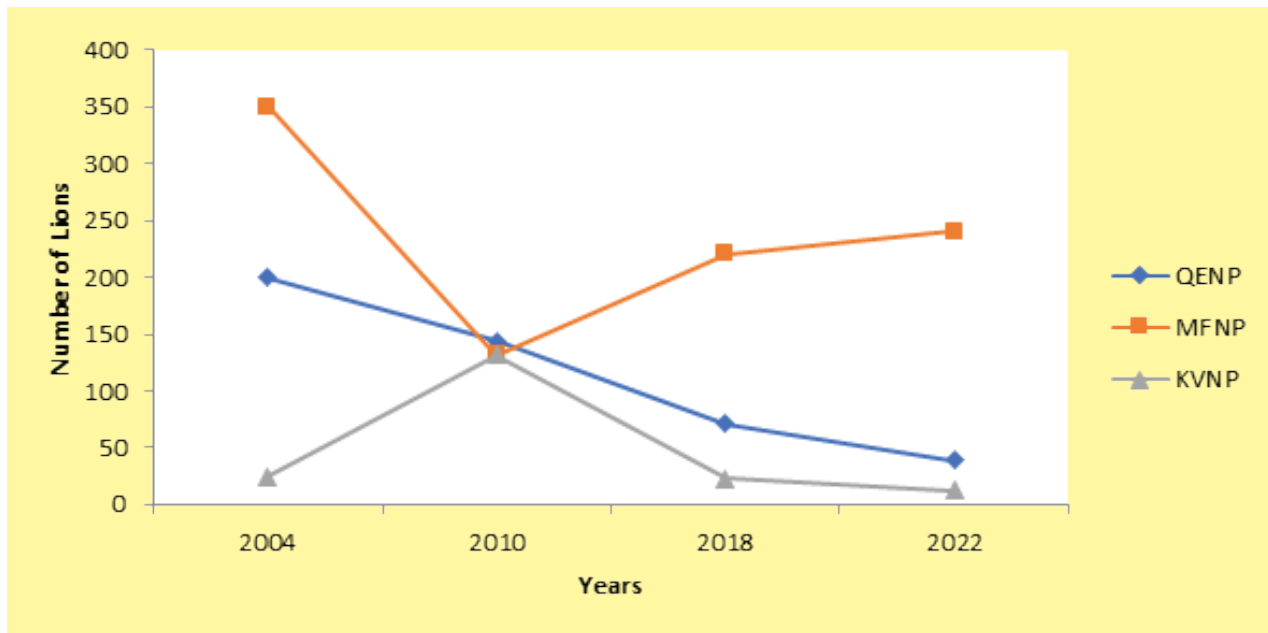


Figure 66: *Lion population trends in gazetted Protected Areas*

While the National Survey revealed that Uganda has 291 lions remaining in the wild, the population estimates were derived using standardised call-up surveys combined with direct observations and spoor evidence, a method that estimates adult and sub-adult lions within defined sampling blocks; cubs aged one year or less were excluded because their survival is highly variable and detection probability is low, which could otherwise inflate estimates and bias trend analysis.

Recent monitoring using individual recognition techniques has provided updated insights into the status of the lion population in the Queen Elizabeth Conservation Area. As of 2025, a total of 93 individual lions were identified and are being monitored across 22 known pride groups. This population comprises 28 adult males, 36 adult females, and 33 sub-adults and cubs. These results indicate that the current lion population in Queen Elizabeth Conservation Area is substantially higher than estimates derived from previous survey methods, which relied largely on spoor counts and call-up surveys. The improved estimates reflect the increased accuracy of individual identification and long-term monitoring approaches, rather than a sudden population increase.

The findings underscore the importance of continuous, landscape-level monitoring using robust and standardised methods to accurately track population status, assess long-term trends, and evaluate the effectiveness of the Strategic Action Plan for Large Carnivore Conservation in Uganda (2024-2034). Sustained monitoring will be critical for guiding adaptive management and ensuring the long-term viability of lion populations within the conservation area.





### Status and Trends of Southern White Rhinoceros in Uganda

In 2001, Uganda introduced two (2) Southern white rhinos (*Ceratotherium simum simum*) from Solio Ranch, Kenya to Uganda Wildlife Education Conservation Centre (UWEC). In year 2005 four white rhinos were again introduced from Solio Ranch, Kenya to Uganda at Ziwa Rhino Sanctuary. In 2006 two (2) white rhinos were donated by The Disney Park Zoo in Florida USA and introduced in the country at Ziwa Rhino Sanctuary. The six (6) rhinos at Ziwa became the breeding stock for the country. Following the donation of eight additional rhinos from South Africa (thanks to African Parks that facilitated the importation and donation) on 9th December 2025, Uganda currently has 61 southern white rhinos; 53 at Ziwa rhino sanctuary four at Ajai Wildlife Reserve, two at Kidepo Valley National Park and two at Uganda Wildlife Conservation and Education Centre (UWEC) (Figure 67).

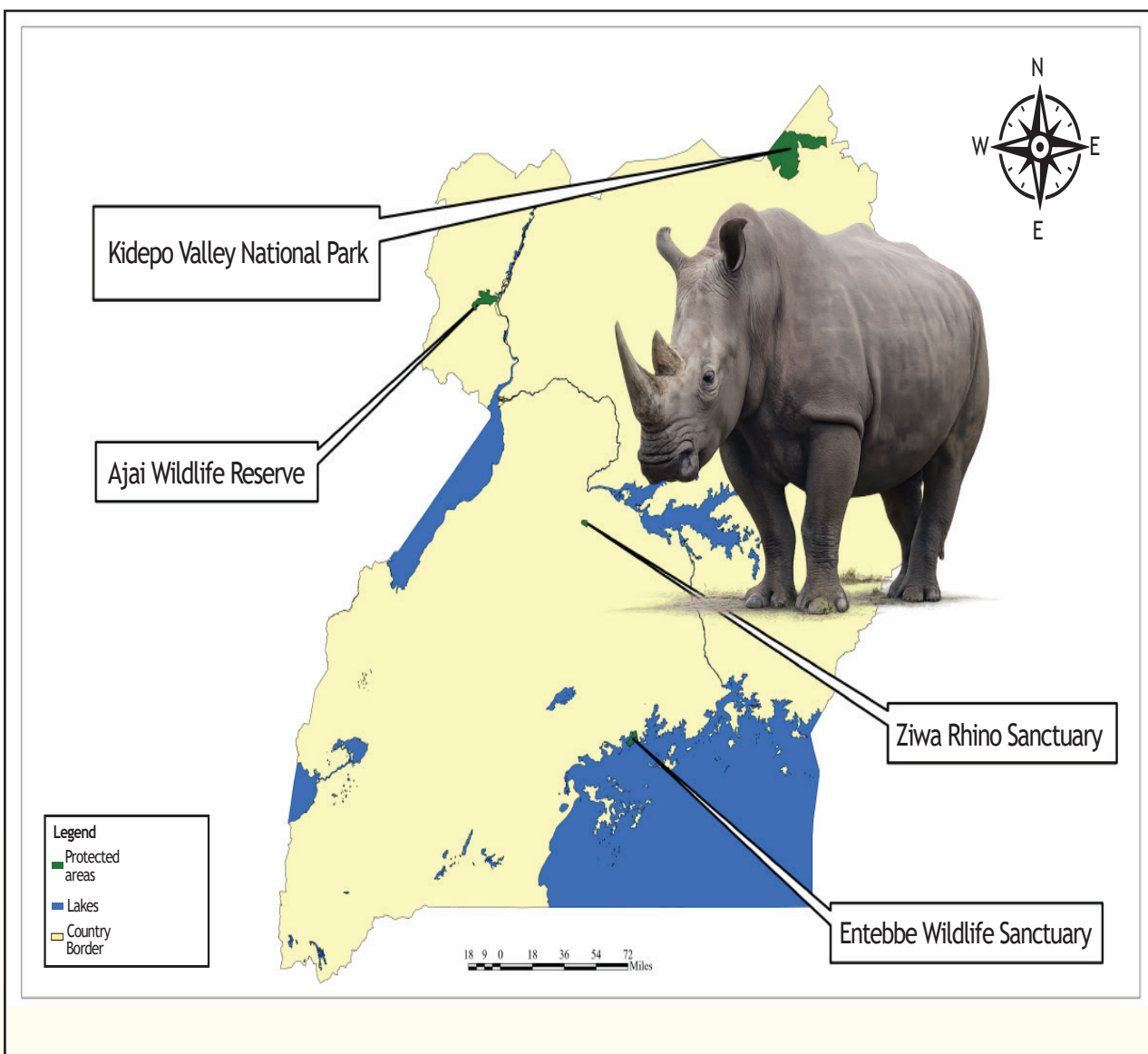


Figure 67: Protected Areas with white rhinoceros





### Status and Trends of Zebra

The population of zebras in Uganda is stable and they are found in only four Protected Areas (Lake Mburo National Park, Kidepo Valley National Park, Pian Upe Wildlife Reserve and Katonga Wildlife Reserve - KTWR) (Figure 68). In 2018, 43 zebras were translocated from the Lake Mburo Ranches to KTWR. However, the numbers in KTWR seem not to be increasing probably due to vegetation change in the reserve, while the population in Pian Upe Wildlife Reserve is growing at a faster rate.

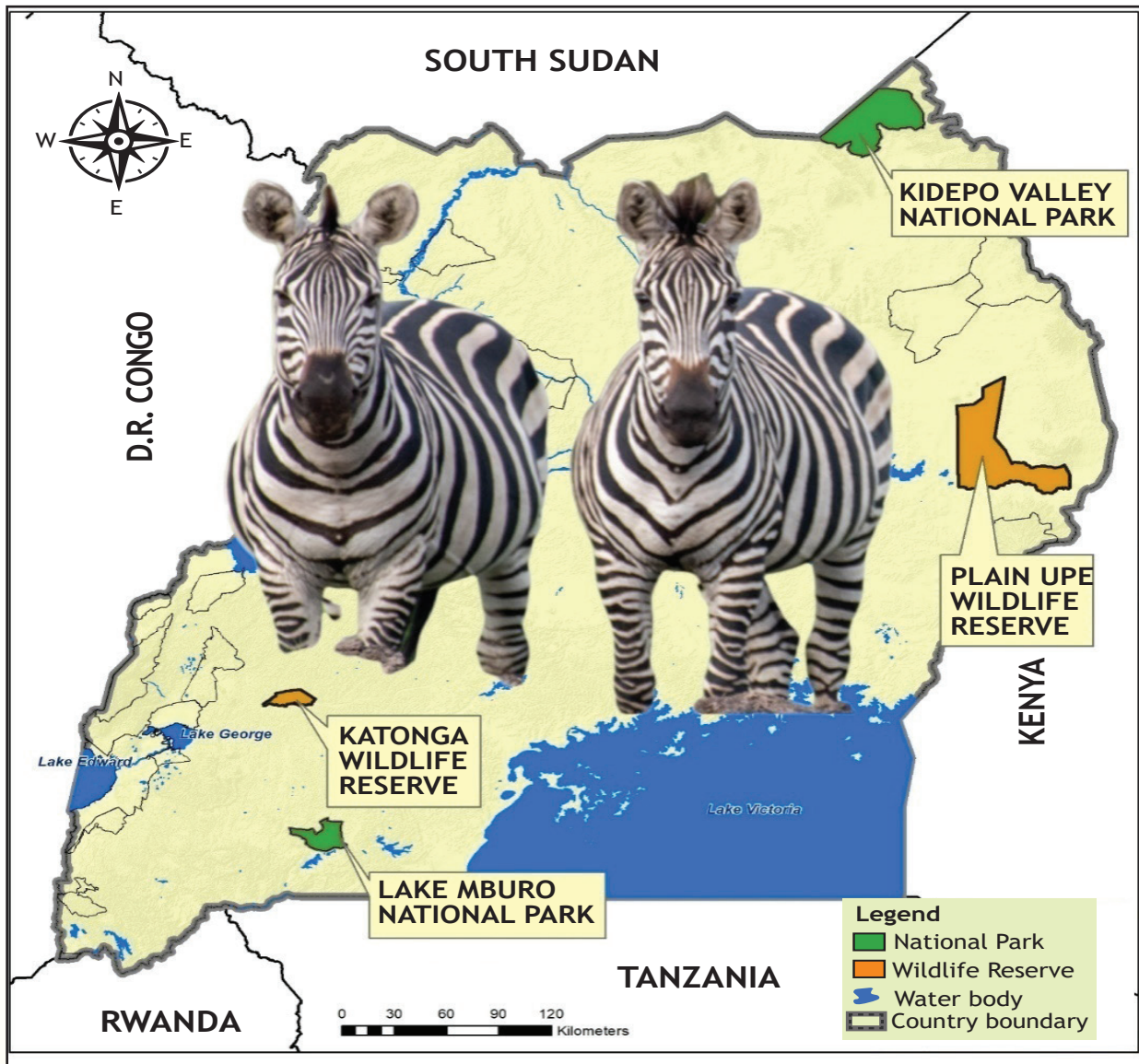


Figure 68: Protected Areas with Zebras

Generally, the zebra population is showing a 17.9% increase rate between 2022 and 2025 (increased from 17,762 to 20,942) and a 5.6% average annual increase rate (Table 5).





### Status and Trends of Eland in Uganda

The Common Eland in Uganda has a highly restricted and fragmented distribution, occurring only in three conservation landscapes: Pian Upe Wildlife Reserve (PUWR), Lake Mbuo National Park (LMNP), and the Kidepo Valley landscape (*Figure 69*).

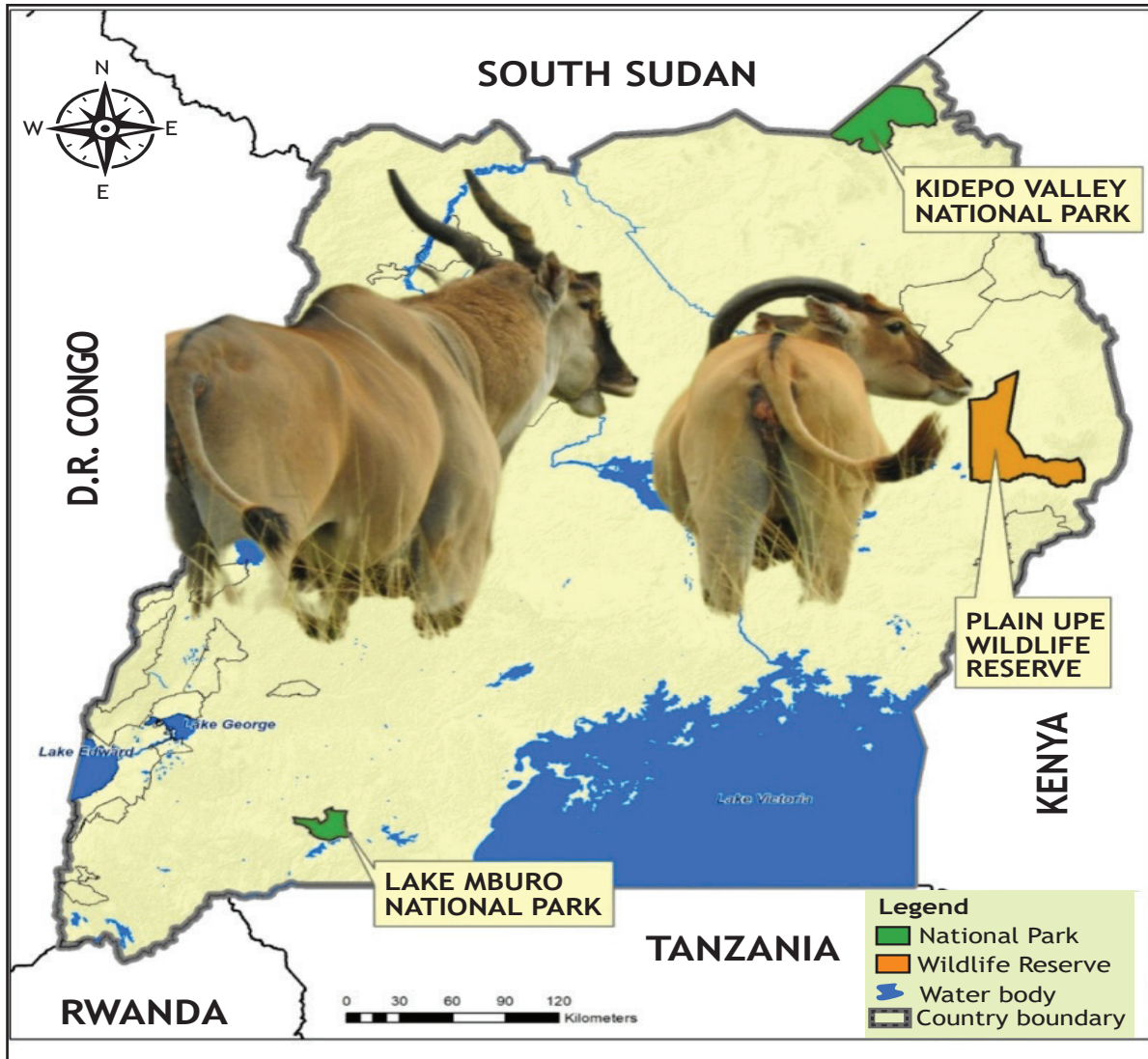


Figure 69: *Protected Areas with Elands*

While nationally the species is listed as Endangered on the Uganda National Red List, at the Global level, the species is classified as Least Concern on the IUCN Red List. The current national population is estimated at 3,619 individuals, with 3.3% in Lake Mbuo Ranches (n=86) and Karenga Community Wildlife Management Area (n=35) while 96.7% are concentrated in Pian Upe Wildlife Reserve (n=1,818) and Lake Mbuo National Park (n=1,553) and Kidepo Valley National Park supports only 127 elands. The concentration of about 93% of Uganda’s elands is in two Protected Areas (Pian Upe Wildlife Reserve and Lake Mbuo National Park).





### State of Roan Antelope in Uganda

The roan antelope (*Hippotragus equinus*) is one of Uganda’s largest and most distinctive antelope species, recognised for its robust build, reddish-brown coat, and striking facial markings. Historically, roan antelopes were found in several Protected Areas, including Kidepo Valley National Park and Lake Mburo National Park; however, they are now locally extinct in these parks. Currently, in Uganda, roan populations persist only in Pian Upe Wildlife Reserve, where 352 individuals were recorded in 2023 (Figure 70). These gregarious grazers typically form herds of 6 to 30 animals and depend on their speed and keen senses to avoid predators. Although classified globally as Least Concern, Uganda’s roan antelope faces significant local threats such as habitat loss, poaching, and competition with livestock.

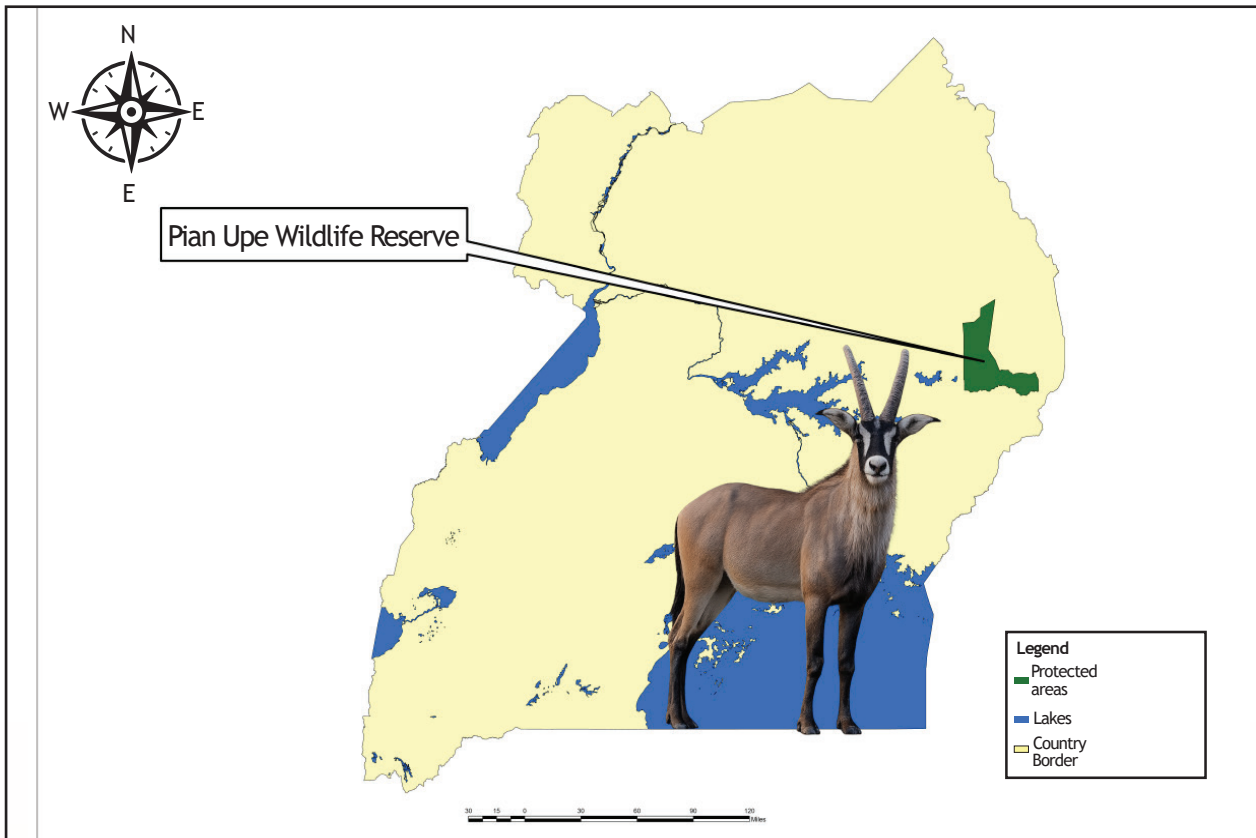


Figure 70: Protected Area with Roan Antelopes





### Status and Trends of Mountain Gorilla in Protected Areas

The Mountain Gorilla (*Gorilla beringei beringei*) is an endangered species, having been downlisted from Critically Endangered to Endangered on the IUCN Global Red List in November 2018. In Uganda, mountain gorillas occur in Bwindi Impenetrable National Park (BINP) and Mgahinga Gorilla National Park (MGNP) (Figure 69). The population of gorillas in BINP was estimated at 459 individuals in the 2018 gorilla census (Figure 70), while the greater Virunga landscape, which includes MGNP, recorded 604 individuals in the 2015 census. Uganda shifted its gorilla census methodology from nest-count surveys to genetic-based census in 2011, establishing genetics as the standard method for future surveys. This year, Uganda completed a new gorilla census in Bwindi, and the data are currently under analysis to determine the updated population estimate.

Although gorilla censuses are intended to be conducted every five years, financial constraints have resulted in Uganda carrying them out approximately every eight years since 2011.

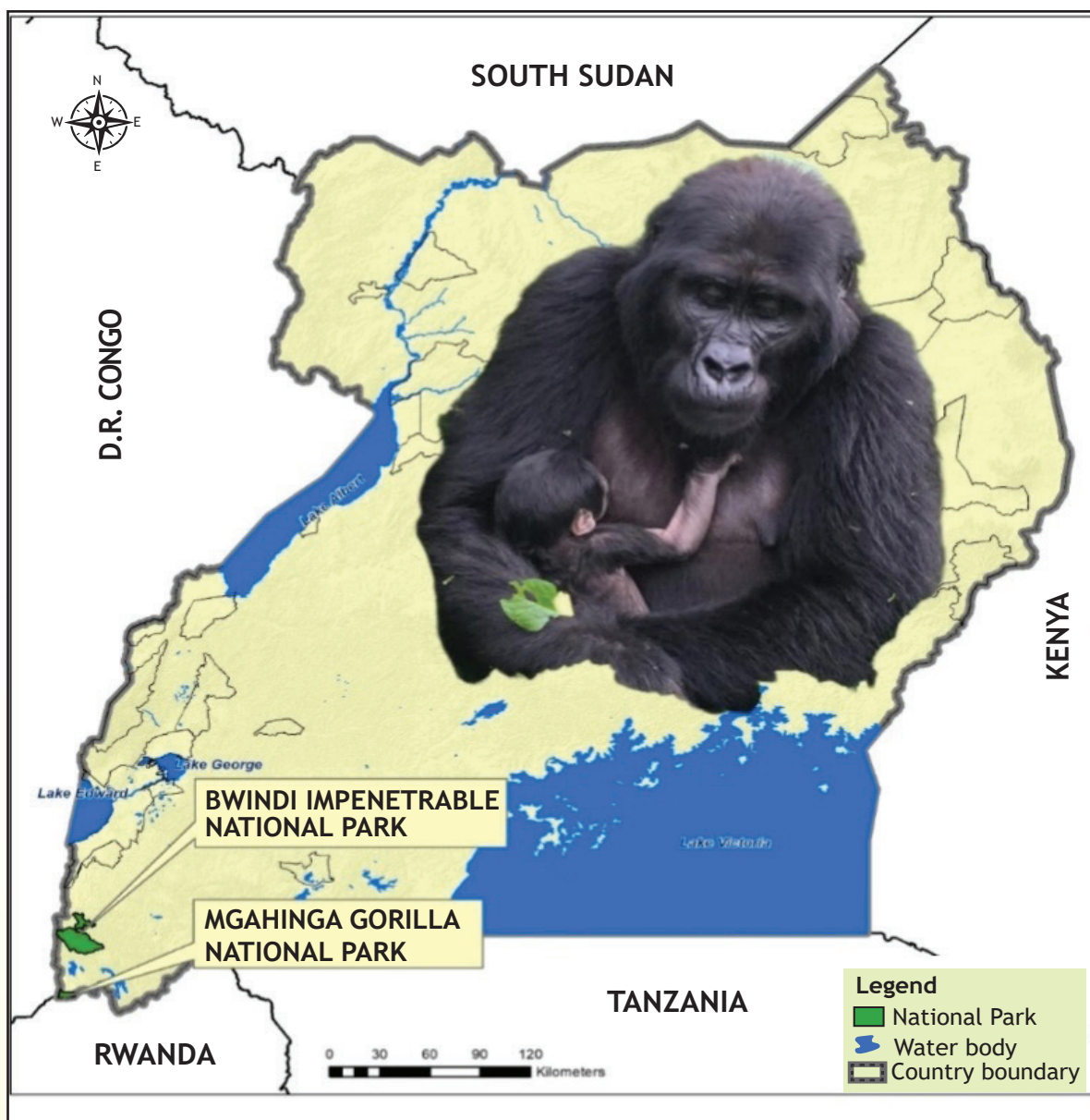


Figure 71: Uganda Protected Area with gorillas



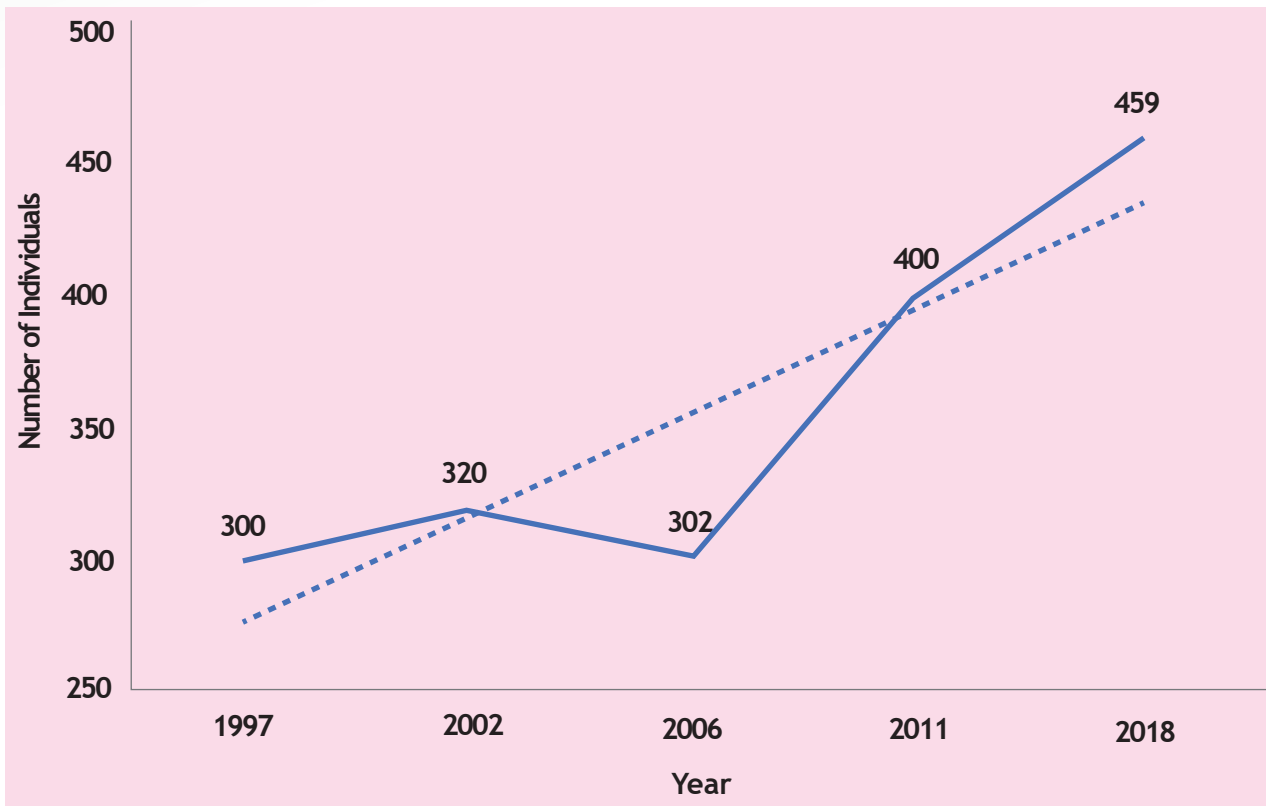


Figure 72: Mountain gorilla population trends in BINP





### Status and Trends of Topi in Uganda

Topis are species categorised as of least concern both on the Uganda and IUCN Global Red Lists. They are found only in three Protected Areas (Queen Elizabeth National Park, Lake Mbuo National Park and Pian Upe Wildlife Reserve (Figure 73). The Topi population for the country is at 3,809 in 2025 having increased from 1,805 individuals recorded in 2022. The 2024 mammal census in Lake Mbuo National Park did not record sightings of Topis neither in the park nor the ranches in the conservation area.

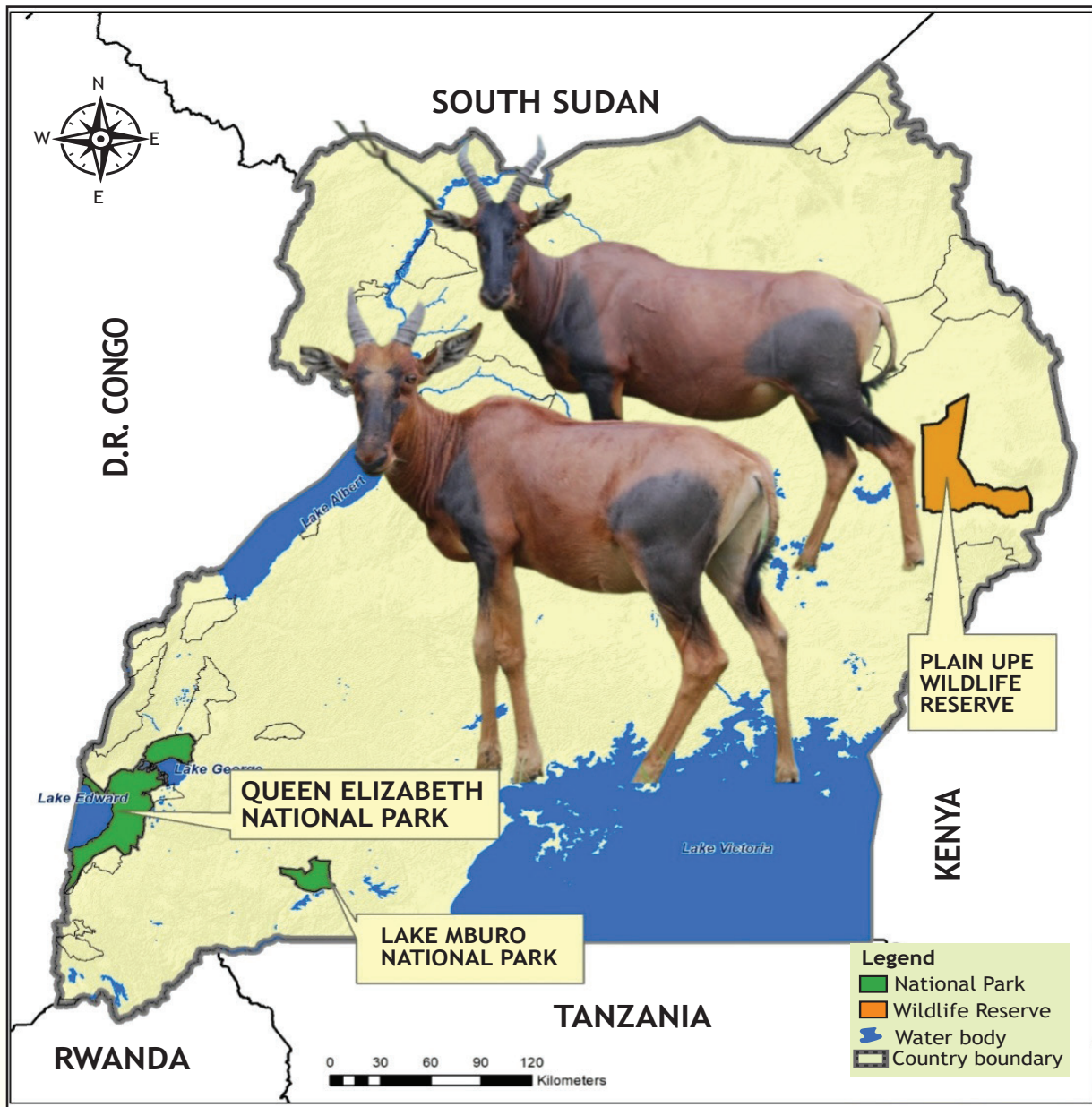


Figure 73: Uganda Protected Area with topis





### Status and Trends of Hippopotamus in Uganda

Hippopotamus are species of Least Concern on both the Uganda and IUCN Global Red List. They are widespread within the country though majorly concentrated in Queen Elizabeth National Park and Murchison Falls National Park. Hippo populations in QENP, MFNP and LMNP are usually monitored through total counts using motorised speedboat riding at an average speed of 14km/hour on the water bodies.

Population estimate for hippos is also captured whenever Systematic Reconnaissance Flights are conducted in the above Protected Areas. (Figure 74 shows a cow and her calf). The 2023/2025 Hippo population registered an increase from 8,226 to 9,026 individuals registered in 2021/2022 and a 9.72% increase rate in 3 years and 3.13% average annual increase rate. Over 77% of the hippo population was recorded in QECA (Figure 75).



Figure 74: Hippopotamus with calf (Photo: UWA)

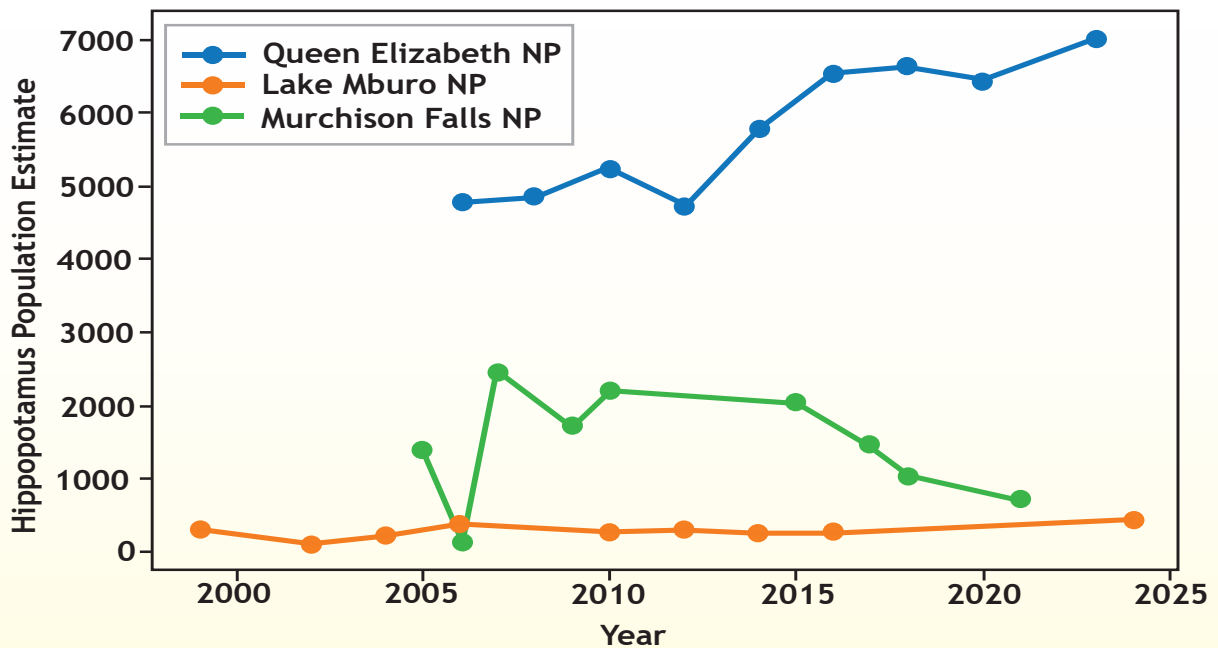


Figure 75: Population trends of hippopotamus in selected Protected Areas





### Status and Trends of Chimpanzee in Uganda

Chimpanzees (*Pan troglodytes*) are among the most important flagship and endangered species in Uganda, primarily ranging in the forest ecosystem of the Albertine Rift (Figure 76). The latest national chimpanzee census was conducted from 2017 to 2020, with further site-specific surveys conducted in the Rwenzori Mountains, Kibale and Bwindi Impenetrable National Park in 2025. Consequently, this analysis recalibrates the chimpanzee status using 2020 national census data, complemented by recent confirmed trends from the Rwenzori Mountains, Bwindi Impenetrable and Kibale National Parks.

Uganda’s chimpanzee population as of 2025 is 6,075 individuals, up from 5,072 in 2021/2022 (Table 5). This increase is primarily due to population growth in Rwenzori Mountains National Park, which recorded 739 individuals in 2025 up from 576 chimpanzees in 2021, 426 individuals in Bwindi Impenetrable National Park in the 2025 census and 1,415 individuals in 2025 up from 1,001 chimpanzees recorded in the 2019 census. At present, Uganda is home to 77 chimpanzees currently under ex-situ management, including 54 at Ngamba Island Chimpanzee Sanctuary and 23 at the Uganda Wildlife Conservation Education Centre (UWEC). Looking forward, there will be ongoing studies targeting chimpanzee populations as well as their status in Uganda Wildlife Authority (UWA) PAs and isolated forest fragments to help establish updated statistics on population numbers and trends.

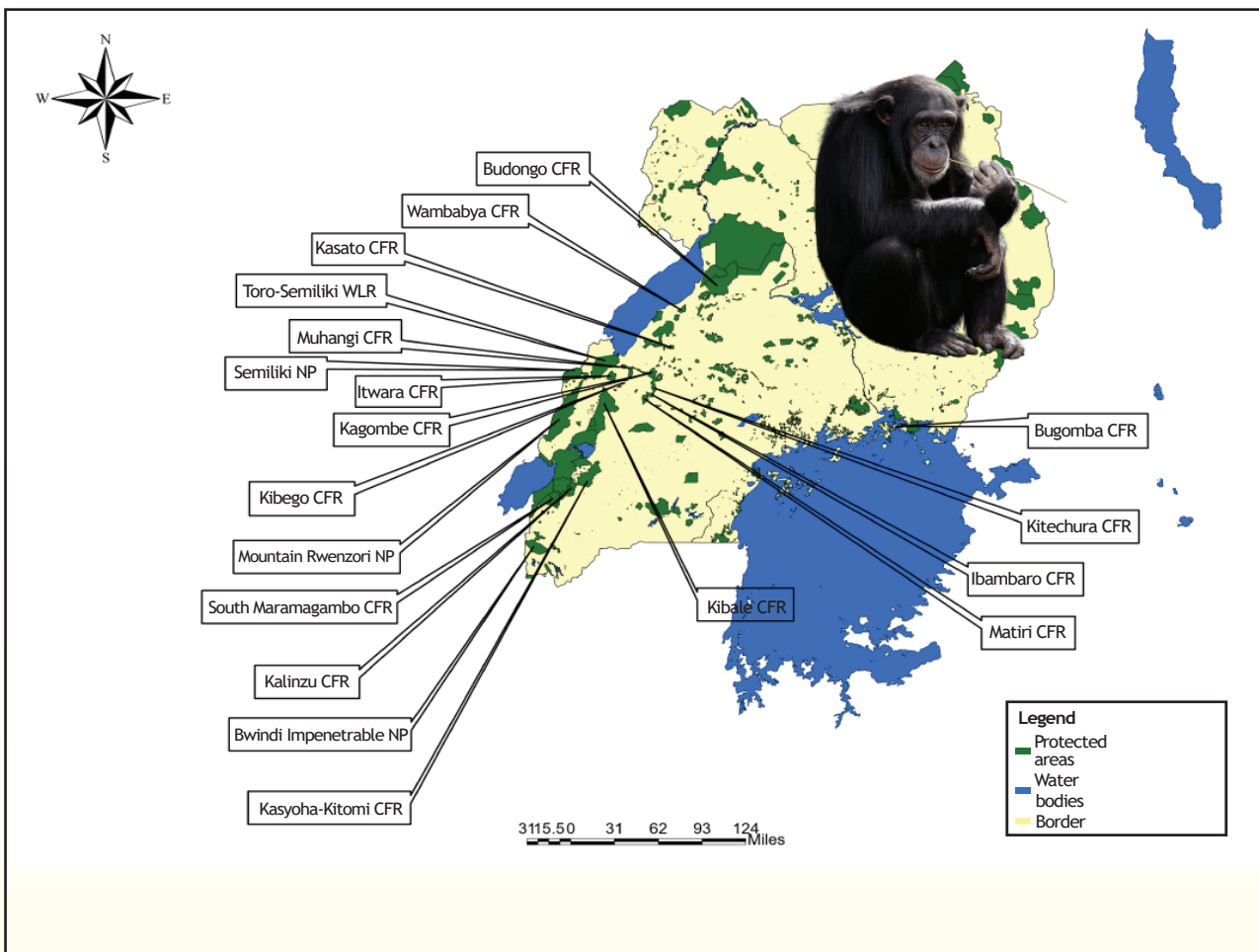


Figure 76: Protected Areas with chimpanzee





### Status and Trends of Leopard in Uganda

Leopards (*Panthera pardus*), both globally and within Uganda, are rated as Vulnerable for reasons such as habitat fragmentation, retaliatory killings resulting from livestock losses, and decline in prey species. Uganda’s number of leopards has been declining over time and has been decreasing over the recent past decades. The most recent estimate derived from the recent Non Detriment Findings (NDF) by Mudumba et al. (2023), estimates that there are around 328 leopards in the country (Table 5). These leopards are expected to live in Seven national parks-Queen Elizabeth National Park (QENP), Murchison Falls National Park (MFNP), Kibale National Park (KVNP), and Lake Mburo National Park (LMNP), Semliki National Park, Kidepo Valley National Park, Mt. Elgon National Park, five wildlife reserves, and two community wildlife area as predicted by the NDF based on habitat suitability among other parameters (Figure 77). Leopards were calculated at about 86 individuals in QENP and about 12 in LMNP, contrasting previous camera-trap studies (Brackowski et al., 2022), which reported 31 and 25 for each park respectively in 2018. Leopard numbers were greater in the past; in 1988, over 4,200 were reported, and 493 by 2010, suggesting a steep decline in the population over the decades. In addition to the leopards living in PAs, the 2023 NDF assessment predicted an estimate of 104 leopards to be living outside PAs in Uganda.

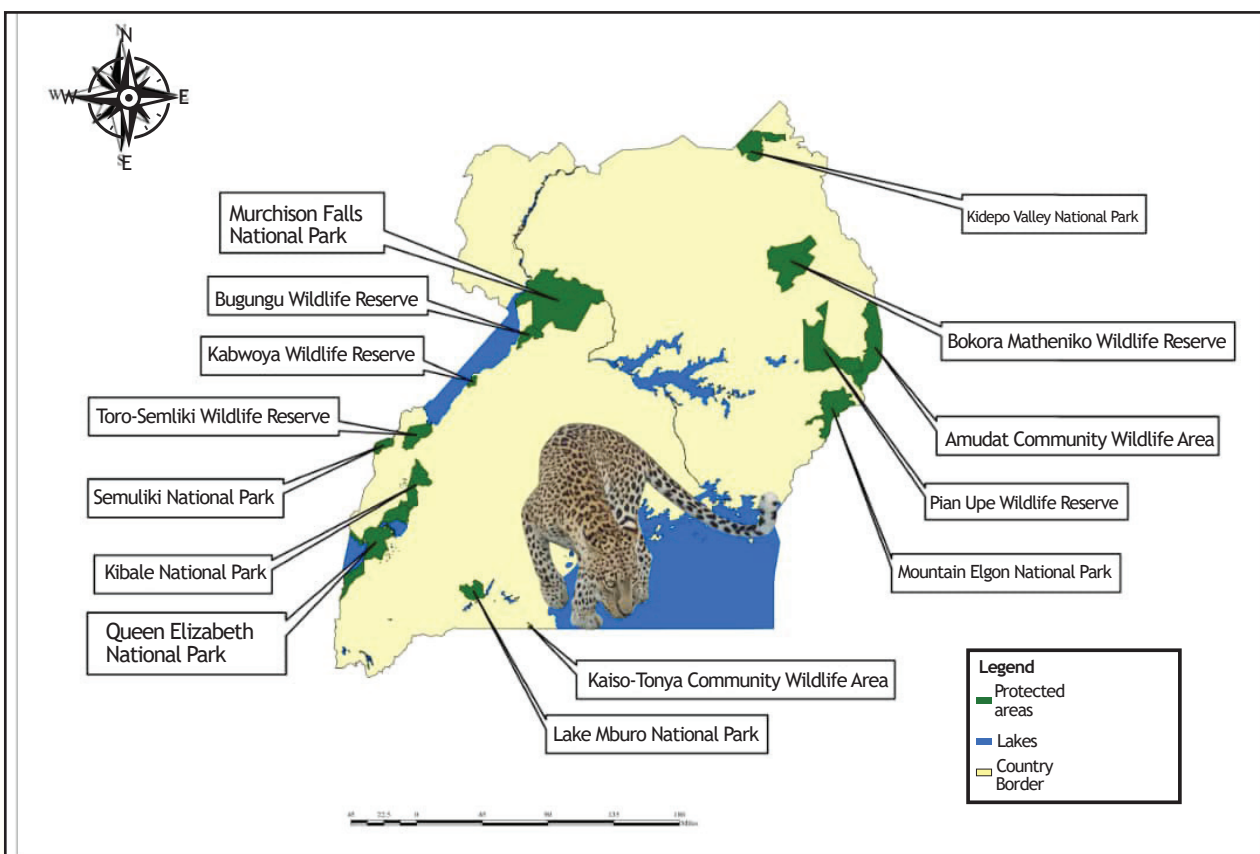


Figure 77: Protected Areas with Leopards.

Human-leopard conflict is a serious issue, particularly around the park edge, where livestock predation can cause the killing or poisoning of leopards in retaliation. Although leopards still live in Uganda’s Protected Areas, there is a dearth of long-term and continuous population monitoring outside Uganda’ PAs. The establishment of standardised camera-trap surveys along key conservation landscapes is imperative when monitoring the population of leopards in Uganda to determine conservation quotas that can support conservation efforts and create effective conflict management strategies. The presence of leopards in other Protected Areas is confirmed by patrol reports and conflict records, but little quantitative data is available on population





density. These data gaps will be tackled in future assessments to contain the presence, status and trends of leopards in Uganda rather than a solely relying on NDF prediction models.

### Status of Pangolins in Uganda

Pangolins are among the most threatened mammal groups globally, with all species experiencing severe population declines due to illegal trade and habitat loss. Uganda may be one of very few countries which support all four African species. Recent verified records confirm the continued presence of the giant pangolin (*Smutsia gigantea*), Temminck's ground pangolin (*Smutsia temminckii*) and white-bellied pangolin (*Phataginustriacuspis*) (Chester Zoo, 2024). The black-bellied pangolin (*Phataginus tetradactyla*) is also thought to occur in the country, but there have been no confirmed records in recent years.

The giant pangolin, the largest pangolin species, reaches up to 180cm and 40kg (Hoffmann et al., 2020) and is classified as Endangered on the IUCN Red List (Nixon et al., 2019). Although widely distributed across central and southern Uganda, giant pangolins are rare and are almost exclusively restricted to Protected Areas. Recent species distribution modelling across Uganda revealed giant pangolin distribution is predominantly influenced by distance to protected area boundaries, elevation and tree cover, with the species preferring areas far away from human influence, elevations below 1500m and high tree cover (Matthews, 2026). Giant pangolins have large home ranges, and therefore depend on large, connected habitats (Matthews, 2026) (Figure 78).

Like giant pangolins, Temminck's ground pangolins are terrestrial, but they are smaller, typically measuring up to 140cm and weighing an average of 10kg (Pietersen et al., 2020). The species is classified as Vulnerable (Pietersen et al., 2019a). In Uganda, the species is associated mainly with savannah and open woodland habitats and occurs across the northern parts of the country. Recent evidence indicates that Temminck's and giant pangolins may occur sympatrically in at least one area of Uganda, suggesting some overlap in habitat use between the two terrestrial species (Chester Zoo, 2024).

The white-bellied pangolin, weighing 1-3kg with a total length of approximately 100cm, is listed as Endangered (Pietersen et al., 2019b; Jansen et al., 2020). It is associated mainly with lowland and mid-altitude forest ecosystems, where it uses tree hollows for shelter. In Uganda, white-bellied pangolins occur widely across forested landscapes south of the River Nile. Owing to their semi-arboreal habits, they can persist in areas with partial tree cover and are found both inside and outside Protected Areas. They are frequently recorded in human-modified landscapes such as farmland and villages and where remnant tree cover remains, highlighting the importance of retaining trees and habitat connectivity outside of Protected Areas.

The black-bellied pangolin is a small, fully arboreal species, typically measuring around 120cm and approximately 1-4kg (Gudehus et al., 2020). It is listed as Vulnerable (Ingram et al., 2019) and is closely associated with riparian, swamp and primary forests. Although included on the list of Uganda's Nationally Threatened Species (Prinsloo et al., 2016), there are no recent verified records of black-bellied pangolins originating from within the country. While individuals have been confiscated in Uganda, their source remains uncertain. Its strictly arboreal habits make it very elusive, and targeted surveys are needed to confirm its status in Uganda. If present, it would likely occur in western lowland forests linked to the broader Congo-Guinea forest system.

The primary threat to all pangolin species in Uganda is illegal exploitation. All pangolins are listed under Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which prohibits international commercial trade (CITES, 2017). Despite this protection, hunting and trafficking remain widespread.

Pangolins are hunted for their meat for consumption and for their scales, which are used in traditional medicine. Exploitation occurs for domestic use and to meet international demand, primarily from Asian markets.





Uganda functions as both a source and transit country within regional and global trafficking networks. Over the past decade, authorities have confiscated more than 9,990kg of scales, 56 live animals and 36 skins (TRAFFIC, 2025). These seizures likely represent only a small proportion of total offtake due to the clandestine nature of the trade. Indiscriminate hunting methods, especially wire snaring, pose an additional threat. Snares set for other wildlife frequently capture pangolins. Habitat loss and degradation represent the second major threat in Uganda. Agricultural expansion, logging and infrastructure development are reducing and fragmenting natural habitats. Forest-dependent species such as the giant, white-bellied and black-bellied pangolins are particularly affected by canopy loss and declining forest connectivity. Habitat fragmentation also increases human-pangolin encounters, raising the risk of opportunistic capture. Other anthropogenic pressures further threaten terrestrial pangolins, including electrocution on electric fences and vehicle collisions (Stracquadiano et al., 2024).

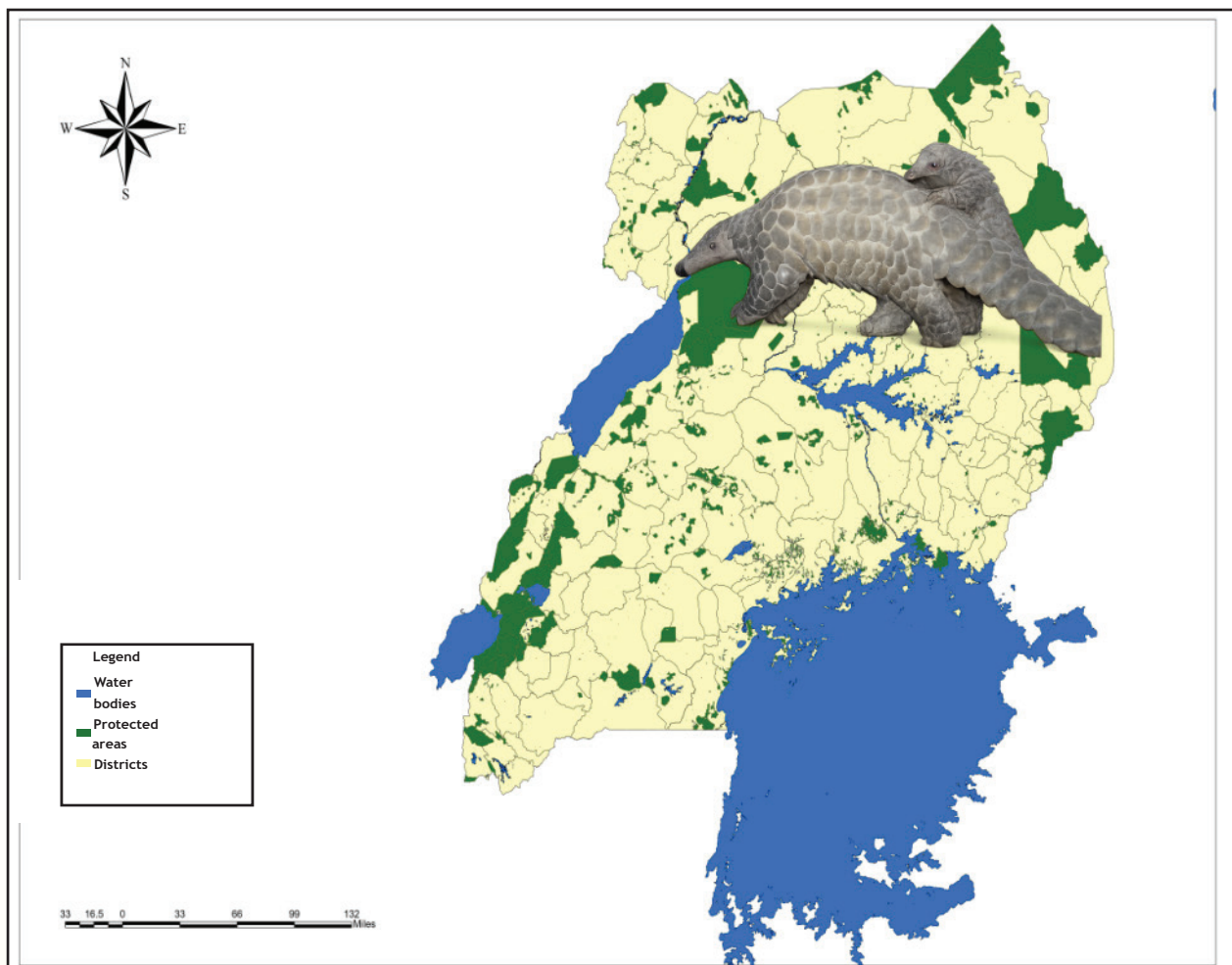


Figure 78: *Wide distribution of pangolins in many forested and savanna grasslands*

Conservation efforts focus on enforcement, research, capacity building and rescue and rehabilitation. UWA has strengthened research and monitoring through collaboration with Chester Zoo under the Giant Pangolin Project. Since 2018, nationwide assessments of pangolins have been conducted with a particular focus on the giant pangolin. This project applies camera trapping, tracking technology and artificial-intelligence tools to better understand pangolin ecology, distribution and habitat use, and to inform management decisions (Chester Zoo, 2024).





### Status of African Golden Cats in Uganda

The African Golden Cat (*Caracal aurata*) is an elusive forest-dependent predator. They are primarily found in the dense, high-altitude forests in Western Uganda. So far, they have been confirmed present in 13 forest habitats, including (1) Mgahinga Gorilla National Park, (2) Echuya Central Forest Reserve (3) Bwindi Impenetrable National Park, and (4) Kibale National Parks (5) Maramagambo Forest (6) Kasyoha-Kitomi Central Forest Reserve (7) Kalinzu Central Forest Reserve (8) Bugoma Central Forest Reserve (9) Wambabya Central Forest Reserve (10) Budongo Central Forest Reserve (11) Mpanga Central Forest Reserve, (12) Katonga Wildlife Reserve and (13) Toro-Semuliki Wildlife Reserve. Uganda is considered a stronghold for conserving the African golden cat (Figure 79).

Globally, the African Golden Cat is classified as Vulnerable by IUCN and locally, is considered endangered on the Uganda Redlist. The major threats are habitat loss and non-discriminate snaring. Bwindi and Echuya are considered the stronghold for the species.

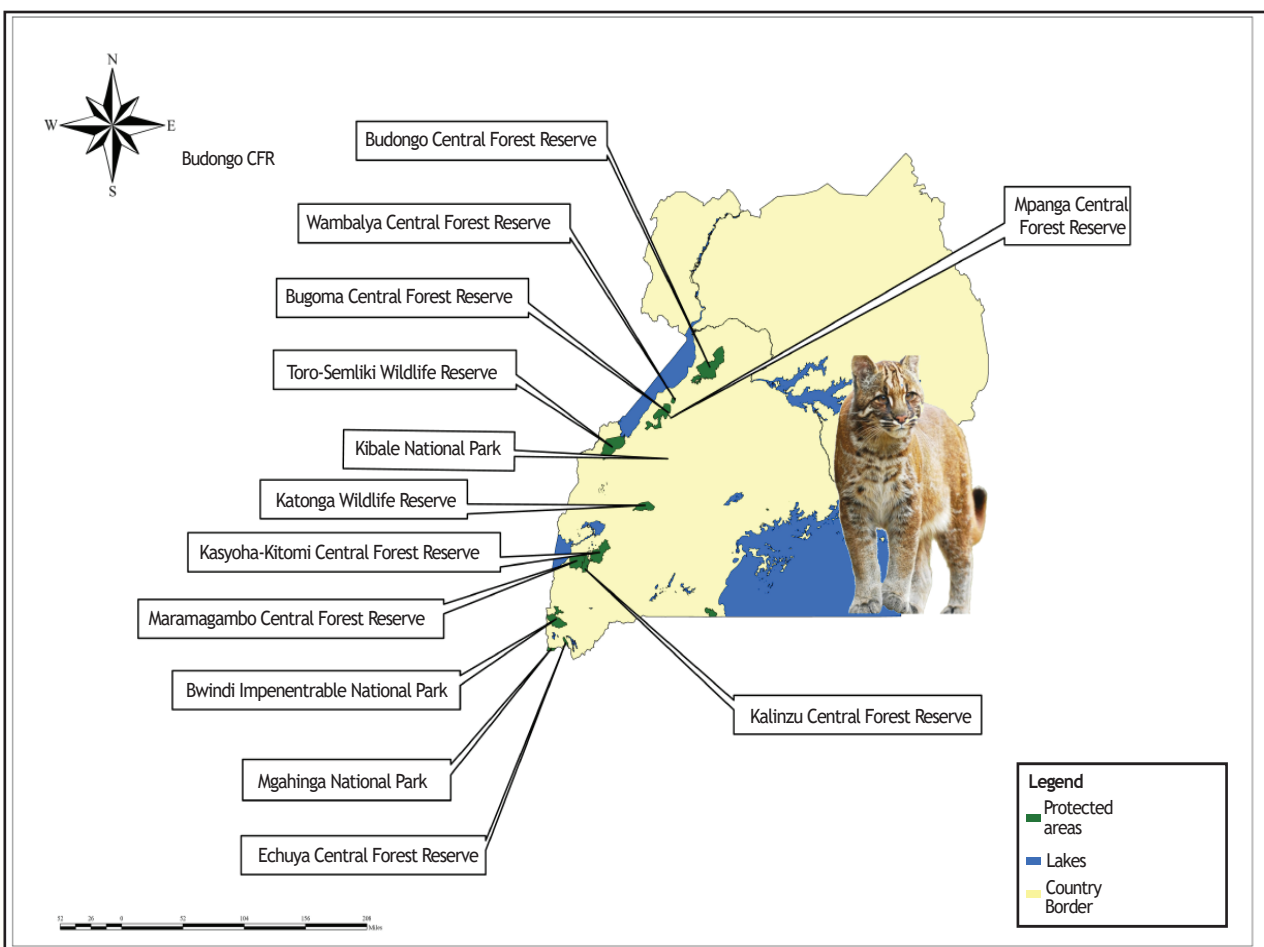


Figure 79: Protected Areas with african golden cat



### Status of Small Mammals in Uganda

Uganda has approximately 400 mammal species belonging to 13 taxonomic orders, making it one of Africa's most mammal species rich nations. Bats comprise the largest proportion of this fauna, approximately 24% of Uganda's mammal species. With 119 bat species now documented across 10 families (up from ~100 in earlier assessments), and new genera still being discovered, bat diversity continues to expand with survey effort. The newest addition to Uganda's mammal species being *Pseudoromicia kityoi* (Monadjem et al 2020), a new genus and species described from Mabira Forest Reserve from only two specimens netted in October 2012. With new genera still being described from forests 60km from Kampala demonstrates Uganda's rich Biodiversity especially of the small fauna.

Combined with shrews (~35 spp), rodents (~100 spp), otter shrews, sengis, and other small mammals, the "neglected majority" constitutes over 65% of Uganda's mammal fauna. For this report, the focus is on the 119 bat species whose status, population trends and threats have been assessed by mammalogists in Uganda (An example of a bat in Uganda is the Yellow-Winged Bat in Figure 80).



Figure 80: Yellow-winged bat (Photo: James Kalema)

### Bat Population Trends: Evidence of Decline

Unlike large mammals, systematic population monitoring for small mammals is practically difficult given their small sizes, behaviour and cryptic nature. However, few long-term observations at different specific roost sites provide the only available insights (Table 6). The Kaptum Cave data is particularly alarming: the loss of three species and >60% population reduction in the remaining four species represents a measurable local extinction event at a monitored site. If this is happening at sites that receive some scientific attention, the situation at Uganda's hundreds of unmonitored roost sites is unknown and potentially far worse. The *Eidolon helvum* (Straw-coloured Fruit Bat) colony in Kampala represents one of Africa's longest bat population time series, spanning 40 years of monitoring. These data showed steady and dramatic populations crush in Kampala over the period (Figure 81).





Table 6. Roost sites at which bat species occurrence and/or trends have been conducted in Uganda to date

Site	Population Status and species	Details	Trend
Kaptum Cave - Kapchorwa	Species lost: 7 → 4 <i>Myonycteris angolensis</i> * <i>Rhinolophus landeri</i> <i>R. hildebrandti</i> <i>Myotis bocagei</i> * <i>Nycteris thebaica</i> <i>Hipposideros ruber</i> <i>Hipposideros cafer</i> *	Remaining 4 species reduced by >60%. Roost disturbance is the primary driver.	↓↓ Severe decline
Misse Cave - Kapchorwa	Max. 30 individuals <i>Myonycteris angolensis</i>	Small population at peak. Highly vulnerable to stochastic extinction. Cave was modified to be used for tourism	↓ Critically low
Ngwat Cave - Kapchorwa	Unknown / disturbed <i>Rousettus aegyptiacus</i> <i>Coleura afra</i> <i>Rhinolophus landeri</i> <i>R. hildebrandti</i> <i>Miniopterus fraterculus</i>	Complex multi-chamber cave with multiple anthropogenic activities ongoing.	→ Disturbed by anthropogenic activity
Sukulu Hills Caves Tororo	<i>Taphozous perforatus</i>	Sukulu Hill with population of 300 of these insect bats	Likely stable if not affected by mining
Aleklek Napaka District	<i>Taphozous perforatus</i>	200-300 individuals in cave and narrow crevices	Likely stable
Python Cave Maramagambo CFR - QENP	<i>Rousettus aegyptiacus</i> ~40,000	Largest known colony. Confirmed Marburg virus reservoir. Requires integrated One Health management.	→ Large colony
Kampala	<i>Eidolon helvum</i>	One of Africa's longest bat population time series (40-years). Major urban roost showing significant fluctuations and long-term decline.	↓ Long-term decline



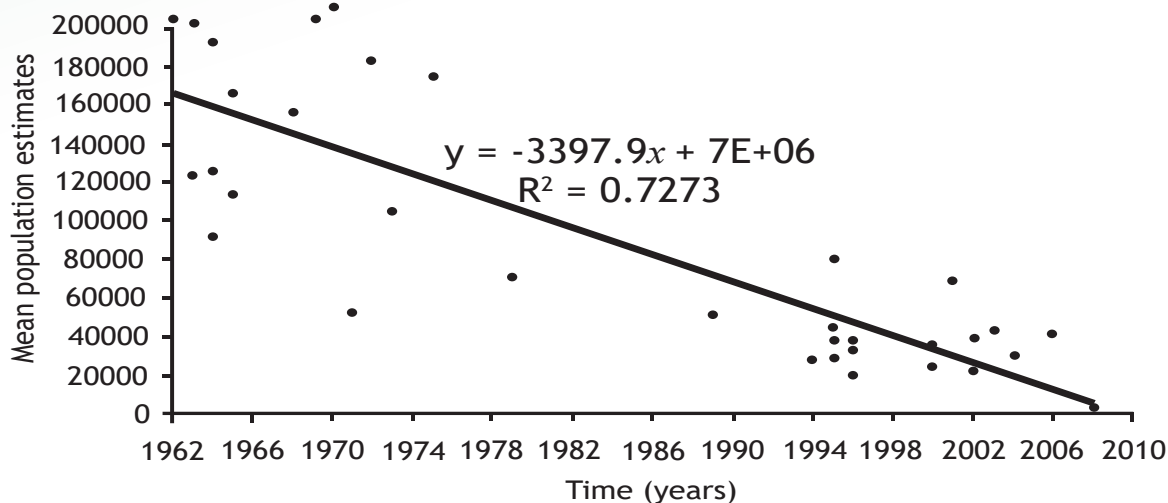


Figure 81: Population trend for the Kampala straw coloured fruit bats (*Eidolon helvum*) over 40 years

From over a year-long acoustic monitoring at Kapkwai Exploration Centre, Mt Elgon National Park, 15 insectivorous bat species from an accumulated over 85,000 call detections (Figure 82) shows the distribution of the number of recorded bat calls from 8 of the species.

The Banana Bat (*Neoromicia nanus*) dominated with 42,070 detections (49% of all calls), followed by *N. capensis* (27,646) and *Miniopterus fraterculus* (12,067). The remaining 12 species ranged from 2 to 1,496 detections. Monthly species composition varied through the year, demonstrating the importance of long term or at least year-round monitoring in the case of bats - as a one-off survey runs the risk of misrepresenting the full trend (Figure 83).

The acoustic monitoring is a cost-effective, non-invasive, and is a scalable method for tracking bat populations and activity patterns.

**The Kapkwai model recommended for a National Bat Monitoring Programme.**

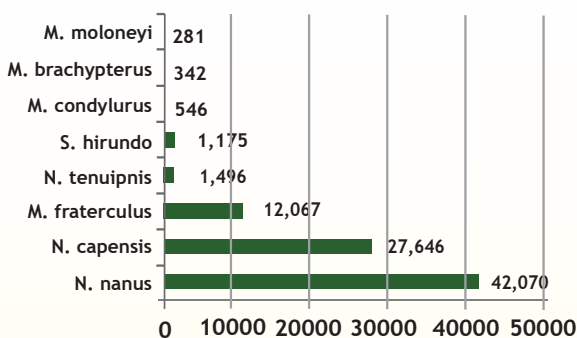


Figure 82: A year's monitoring of bat activity at Kapkwai Mt Elgon NP to show relative frequency of the different species.

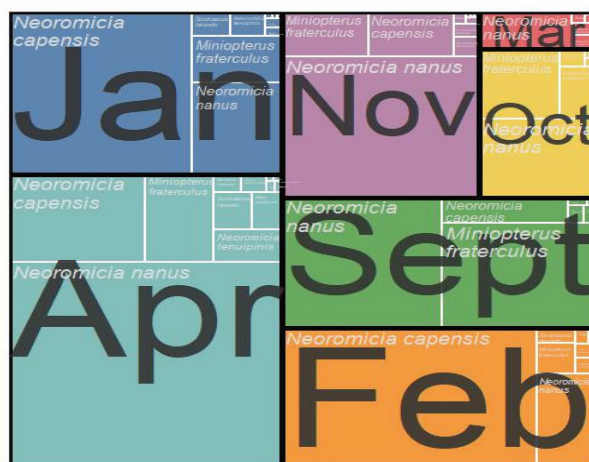


Figure 83: Seasonal variation in bat species activity at Kapkwai, Mt Elgon NP. A year long monitoring of bats at Kapkwai Exploration Centre to show monthly variation in bats activity (Boxes represent proportionate level of presence/activity of species)





A total of 119 bats from 10 families have been assessed with the genus *Miniopterus* previously included within *Vespertilionidae* now recognised as a family. There have been expanded survey efforts, taxonomic revisions to give an update on 119 species across 10 families (Table 7) giving and integration of cumulative occurrence records.

Table 7. *Bat family diversity: comparison of assessments*

Family	Kityo's Count	Updated (2025)	Key Species / Notes
Vespertilionidae	35	37	<i>Includes Neoromicia, Pipistrellus, Myotis, Pseudoromicia (new genus)</i>
Molossidae	20	21	<i>Mops, Chaerephon, Otomops – key insect pest controllers</i>
Pteropodidae	14	15	<i>Rousettus (Marburg), Eidolon (Kampala colony), Casinycteris (EN) - only known from Mabira FR in Uganda</i>
Hipposideridae	10	14	<i>H. ruber (most recorded), H. cyclops (VU), H. abae (VU)</i>
Rhinolophidae	6	8	<i>R. maclaudi (IUCN CR!), R. ruwenzorii (VU) – Albertine Rift endemics</i>
Nycteridae	6	8	<i>N. grandis, N. hispida</i>
Emballonuridae	5	7	<i>Taphozous perforatus, Coleura afra</i>
Megadermatidae	2	3	<i>Cardioderma cor, Lavia frons</i>
Rhinopomatidae	1	2	<i>Rhinopoma hardwickii</i>
Miniopteridae	—*	4	<i>Separated from Vespertilionidae; M. fraterculus (12,067 acoustic detections at Kapkwai)</i>
TOTAL	~99	119	*Miniopteridae now recognised as a separate family

Source: Kityo's count. Updated 2025 integrates our research records (n=1,391), ASM Mammal Diversity Database 2025, and Monadjem et al. 2020.





### Conservation Status of Bats in Uganda

The spatial distribution of threatened species of bats of Uganda is presented in *Figure 84*. *Neoromicia helios* (the Savanna Pipistrelle) is Uganda’s only Nationally Critically Endangered Bat so far known from a single location in Hoima District (Buhamba), in the Wambabya-Budongo corridor wetlands, this site falls directly within the EACOP pipeline corridor. The species is IUCN DD globally, meaning Uganda’s population may be globally significant.

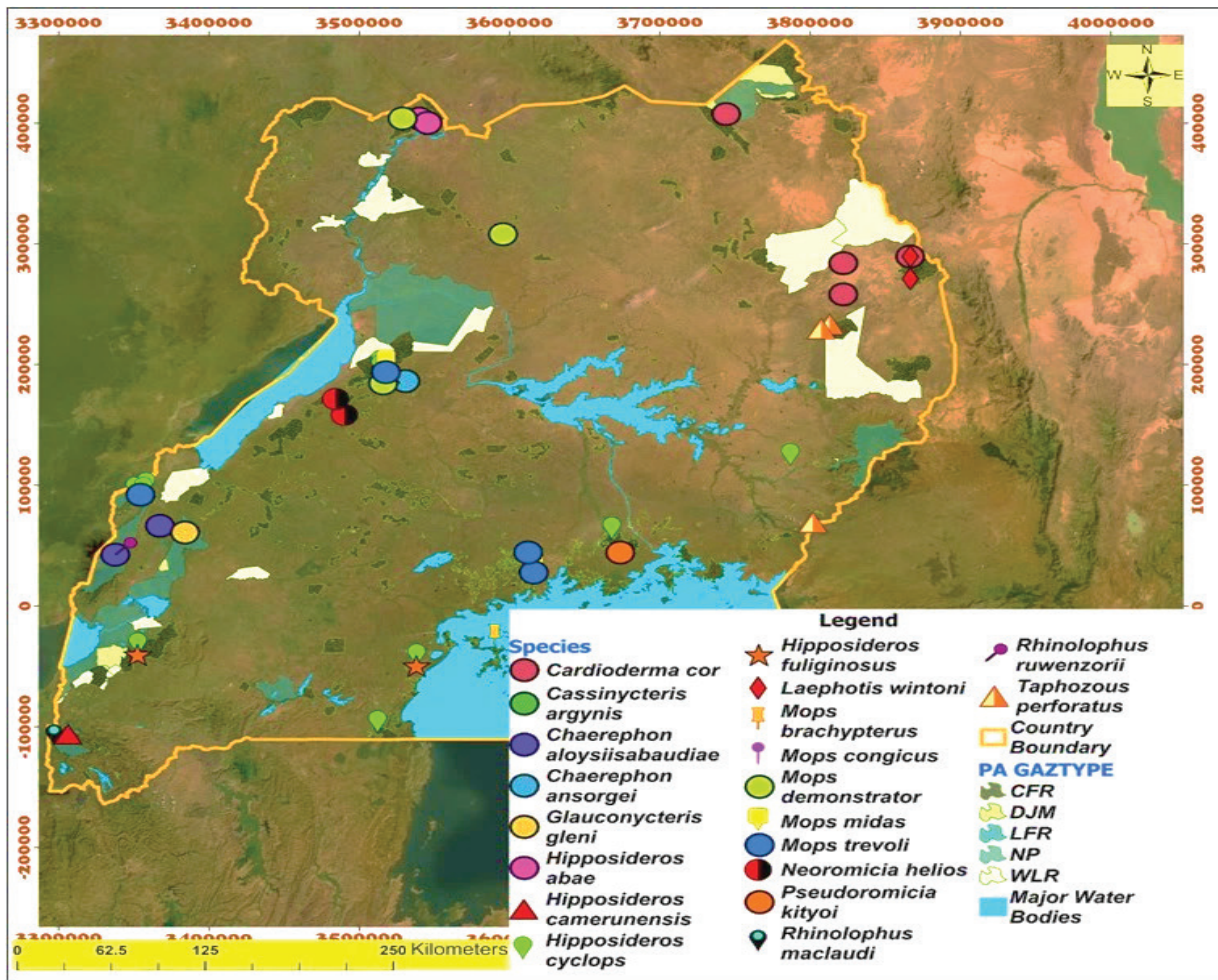


Figure 84: *Spatial distribution of the threatened bats species of Uganda*

There are five nationally Endangered species (*Casinycteris argynnis* – Mabira; *Hipposideros fuliginosus* – Kalinzu; *Mops congicus*; *Mops trevoli* – Budongo, *Laephotis wintoni* – Karamoja) and seven species nationally Vulnerable. Globally, *Rhinolophus maclaudi*, *Taphozous perforatus*, *Hipposideros abae*, *Hipposideros cyclops*, *Chaerephon aloysiisabaudiae*, *Mops brachypterus*, *Mops demonstrator*, *Mops midas*.

The National Red List for Uganda lists an additional 18 species of bats as Data Deficient for which more research will be needed to enable their re-evaluation.

A good reference for bats occurrence in Uganda is the East African Bat Atlas (Kityo et al 2009, [https://www.academia.edu/28142314/East\\_African\\_Bat\\_Atlas](https://www.academia.edu/28142314/East_African_Bat_Atlas)) which maps distribution of all the known bats using then available data. However, available records represent only where surveys have been conducted, creating significant spatial bias.





### Threats to Conservation of Bats

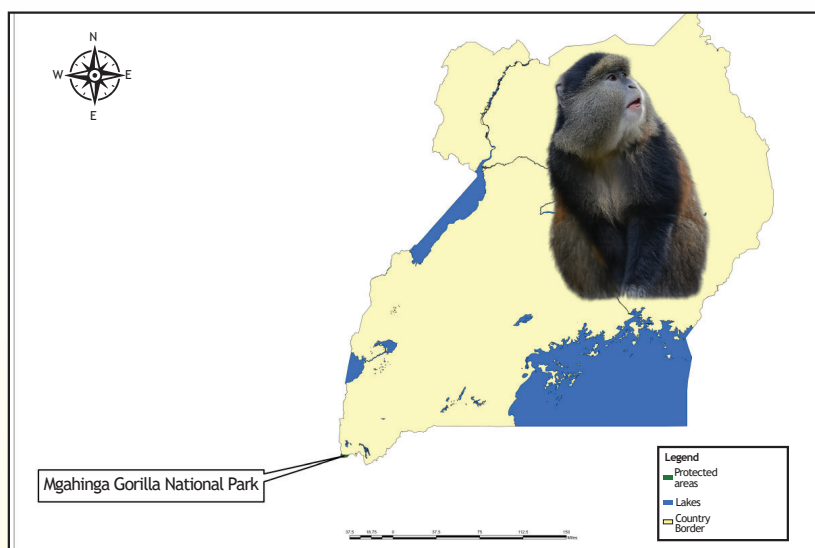
Habitat loss and fragmentation remain the primary threat for small mammals, with Uganda having lost approximately 63% of its forest cover since 1900. But large-scale infrastructure development projects such as oil and gas infrastructure development (EACOP, Tilenga, Kingfisher) in the Murchison Falls-Bugoma landscape represents an emerging and expanding threat. Climate change also disproportionately threatens montane endemics on the Rwenzori and other highland areas.

With respect to bats, several threats that are specific or disproportionate to their conservation have been identified:

1. Roost destruction and disturbance: Direct evidence from Kaptum Cave (3 species lost, >60% population decline in survivors), Misse Cave, and Ngwat Cave. Inadvertent loss of old hollow trees used as roosts, in forested habitats.
2. Extermination campaigns: Commercial bat exclusion services actively marketed—which represents a growing and largely unregulated threat. Nets used to block bats from occupied buildings.
3. Unsustainable harvesting: There is no data that can be used to assess sustainable offtake of bats in the Bat-eating communities such as in Eastern and Northern Uganda. Scale and sustainability are unknown but potentially significant.
4. Negative messaging and persecution: Bats are routinely vilified as disease vectors. Post-COVID, public perception has worsened. Counter-narratives highlighting pest control and pollination services are urgently needed.
5. Disease impacts on bat populations: No event reported for Uganda but could happen. Disease affects bats themselves. Colony health monitoring is therefore essential for both conservation and public health objectives.
6. Habitat loss: Deforestation and other forms of habitat loss and degradation remove foraging habitats and roosting sites.

### Status of Golden Monkey in Uganda

The golden monkey (*Cercopithecus kandti*) is an endangered species on the IUCN Red List and is facing severe conservation concerns due to its limited range in the Virunga Massif area (including parts of Rwanda, Uganda, and the Democratic Republic of the Congo), and Gishwati-Mukura



National Park in Rwanda. In Uganda, the golden monkeys are endemic to Mgahinga Gorilla National Park (Figure 85). The population in Uganda declined by approximately 41% between 1998 and 2003, dropping to less than 1,000 individuals and then dropping by 82.6% to less than 200 individuals between 2003 and 2018. This steep decline has been attributed to many factors including predation, habitat destruction associated with excessive and often illegal bamboo harvesting.

Figure 85: Protected area with golden monkeys





### Status of Dik-dik in Uganda

Dik-dik (*Madoqua spp.*) are a small and closely-adapted antelope found mainly in the Karamoja complex located in northeastern Uganda, comprising key Protected Areas across the country including Kidepo Valley National Park, Pian Upe Wildlife Reserve, Bokora-Matheniko Wildlife Reserve, and Amudat Community Wildlife Area. National population estimates from 2018 indicate an approximate national population of 13,535 individuals. Dik-diks have a more secretive behaviour based on the dense shrub vegetation that they need to keep under wraps. They hide instead of flee if threatened, which makes it much more difficult to detect during wildlife surveys (Image of Dik-dik in Figure 86).



Figure 86: *Dik-dik (Madoqua spp.)* (Photo: UWA)

Dik-diks are crepuscular in nature and they are more active at dawn and dusk, complicating surveying efforts even more. Concerted actions are needed to promote robust systems triangulating monitoring tools and data collection methods that allow for better assessments of their presence, distribution, and abundance would give a clearer picture. These could include; camera traps, ground and aerial surveys.

There are several threats to the population and conservation of Dik-diks in Uganda. Poaching, especially based on snaring practices by the local communities, remains a significant source of pressure. They are also impacted by degraded habitat with invasive alien and problematic plants. Natural predation by jackals, leopards, birds of prey, and pythons is also a factor in population status.

### Extinct Mammal Species in Uganda

#### a) The East African Oryx

The East African Oryx (*Oryx beisa*), historically roamed the northeast of Uganda, notably in areas like Bokora and Matheniko, respectively. The last recorded species from Uganda date back to 1983, and population numbers suggest about 80 in Bokora and about 96 in Matheniko. Since then, there has been no record of the East African Oryx locally and it is considered to be largely extinct.

#### b) The Eastern black Rhino and the Northern White Rhino

Uganda was historically renowned as a historic home range of the Eastern Black Rhinos (*Diceros bicornis michaeli*) and the Northern White Rhinos (*Ceratotherium simum cottoni*) till the mid-1980s. In the 1960's, Uganda had 400 Eastern Black Rhinos in Kidepo Valley National Park and Murchison Falls National Park and 300 Northern White Rhinos (*Ceratotherium simum cottoni*) in Murchison Falls National Park and Ajai Wildlife Reserve. However, local extinction of these two species occurred in 1983 and 1980 respectively due to poaching and civil wars. The loss of these mega-herbivores from Uganda was a big loss of natural heritage and biodiversity.

#### c) The African Painted Dogs in Uganda

African Painted Dogs (*Lycaon pictus*) also known as African Wild Dogs were considered extinct in Uganda since the 1980s. The recent sighting of a pair on 26<sup>th</sup> June 2023 near Narus River in Kidepo Valley National Park confirmed presence of the species in the country after more than 40





years. The pair was sighted by UWA ranger, Gilbert Manyimanyi briefly before they disappeared from view (<https://www.ugandagorillatour.com/africa-wild-dogs-spotted-in-kidepo/>). It is not certain if these two were on transit to neighbouring countries or are within the Kidepo Complex seeking shelter from the anthropogenic threats that are believed to have driven them to the disappearance recorded for decades. Their sighting sparked some cautious optimism within the conservation community that the African Painted Dogs may be returning to Uganda despite the fragility of the hope.

African Painted Dogs are known for their social and highly mobile behavior; they are frequently in coordinated living and hunting packs. Unlike some species of shy and nocturnal animals, the elusive, extensive movements and activity patterns of these creatures are harder to detect in wildlife surveys. Concerted actions of comprehensive, multifactorial surveillance methods (e.g., camera traps, on-site observations and aerial surveys) are crucial for obtaining accurate data on the presence, distribution and the status of these animals before confirming their national conservation status.

### State of Mammal Species Outside Protected Areas

Wildlife in Uganda occurs not only in and around gazetted Protected Areas but also across extensive landscapes outside them, which remain under the mandate of the Uganda Wildlife Authority (UWA) in accordance with the Uganda Wildlife Act, 2019 and now Uganda Wildlife Act Cap 315 (2024). To guide conservation in these un-gazetted areas, the National Plan for Management of Wildlife outside Protected Areas (2021/22-2030/31) was developed. The Plan divides the country into six Wildlife management zones—Sango Bay, Kafu, Muzizi, Aswa, Central, and Kyoga—to strengthen coordination, law enforcement, monitoring, and delivery of conservation interventions in landscapes where people and wildlife co-exist.

To date, no systematic wildlife surveys outside Protected Areas have been undertaken except in concessions and pilot landscapes where management arrangements exist, notably in Nakaseke, Luwero, and Kyankwanzi districts, as well as in privately managed areas such as the Lake Mburo Ranches (Table 8). These surveys provide valuable baseline data on species composition, abundance, and habitat condition. However, beyond these surveyed areas, comprehensive data remain limited, creating significant knowledge gaps on wildlife distribution, population trends, and threats across much of the wider landscape. The most prevalent pressures recorded in surveyed areas include agricultural expansion, charcoal production, settlement growth, and poaching.

Results from central Uganda landscapes show marked spatial variation in wildlife status, closely linked to land use intensity and protection levels. Nakaseke experienced notable declines and local loss of species such as duiker and Uganda kob between 2017 and 2023, likely driven by habitat conversion and sustained human pressure. In contrast, adaptable and human-tolerant species such as vervet monkeys and reedbuck increased, indicating a shift toward general list fauna. Luwero and Kyankwanzi support moderate diversity of small to medium mammals, mostly at low densities, with primates remaining relatively common. The absence of Uganda kob in these landscapes suggests loss of open grassland habitats and persistent hunting pressure (Kisame et al. 2018).

In comparison, Lake Mburo ranches support substantially higher wildlife densities, particularly of zebra, impala, and waterbuck (Table 8), demonstrating the positive role of private land management and coexistence models in sustaining wildlife outside gazetted Protected Areas. Overall, the evidence points to a clear pattern: large, disturbance-sensitive and grassland-dependent species are declining or disappearing, while adaptable species persist or increase as shown in the population snapshot at a glance by species (*Figure 87*). This underscores the urgent need for landscape-level planning, strengthened community-based conservation, and incentives for wildlife-friendly land use, and expanded monitoring beyond Protected Areas to prevent further erosion of Uganda's wildlife resources.





Table 8. Population status of selected species across Landscapes

<b>Landscape / Area</b>	<b>Year(s)</b>	<b>Species Recorded</b>	<b>Population Estimate / Group Size</b>	<b>Key Observation</b>
<b>Nakaseke</b>	2017 → 2023	Bushbuck	11,090 → 7,118	Decline
		Duiker	3,745 → 0	Local disappearance
		Uganda Kob	1,141 → 0	Local disappearance
		Reedbuck	950 → 1,210	Increase
		Vervet Monkey	1,674 → 2,424	Increase
<b>Luwero</b>	2023	Aardvark	3 (group size)	Present at low density
		Baboon	11	Present
		Bushpig	4	Present
		Bushbuck	23	Present
		Black and White Colobus	15	Present
		Duiker	12	Present
		Vervet Monkey	119	Abundant
		Hare	1	Rare
		Squirrel	1	Rare
		<b>Kyankwanzi</b>	2027	Bushbuck
Duiker	1,945			Present
Uganda Kob	0			Absent
Reedbuck	545			Present
Vervet Monkey	289			Present
<b>Lake Mbuoro Ranches</b>	2019	Impala	2,382	High density
		Bushbuck	489	Moderate
		Topi	335	Present
		Zebra	6,562	Very high
		Waterbuck	485	Moderate
	2024	Impala	10,526	Very high
		Eland	88	Moderate
		Warthog	848	High
		Bushbuck	269	Moderate
		Zebra	8,362	Very high
	Waterbuck	1,228	Very high	



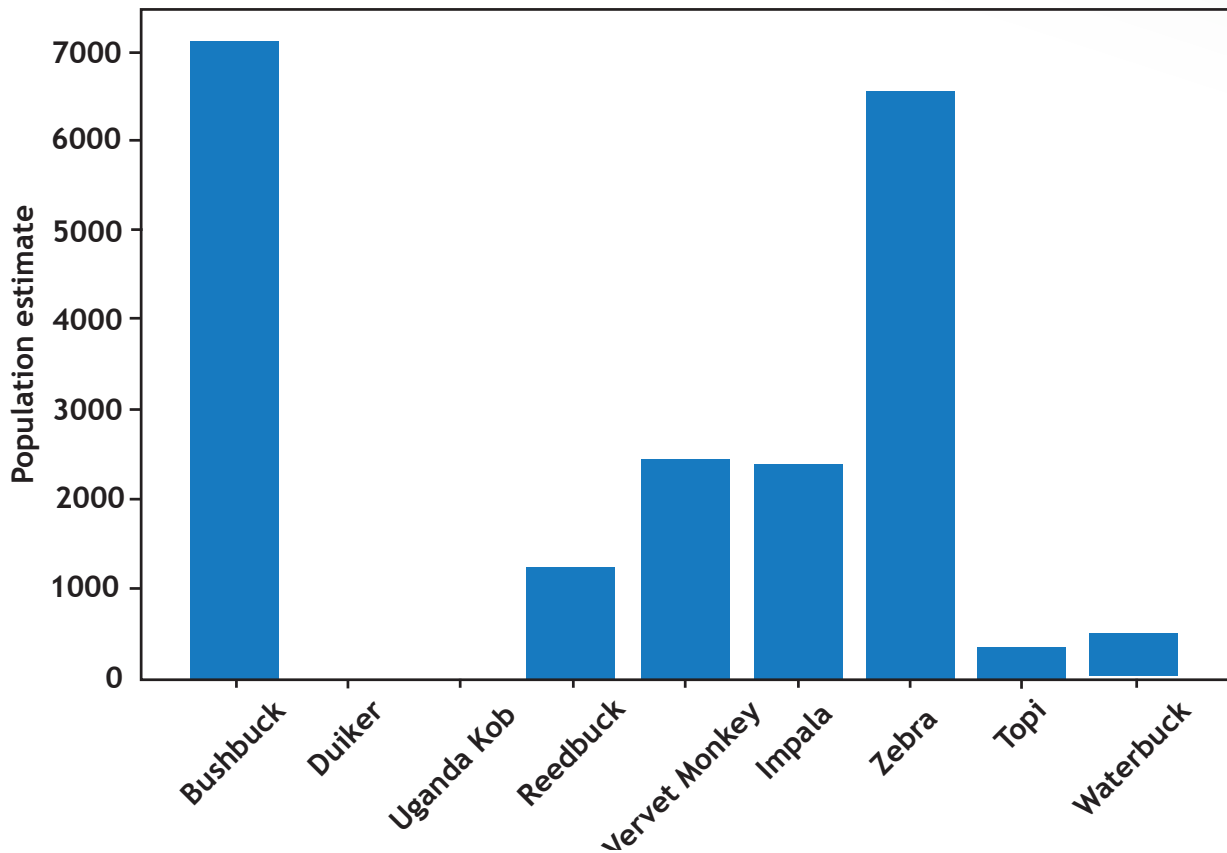


Figure 87: *Population estimates snapshot outside Protected Areas*

### 3.7 Status of Wildlife in Captive and Semi-captive Settings

Wildlife held in captive and semi-captive settings in Uganda, including zoos, sanctuaries, rescue centres, and breeding facilities, plays an important complementary role in national Wildlife conservation, education, research, and species recovery. These facilities provide safe refuge for injured, orphaned, confiscated, and displaced animals that cannot be immediately returned to the wild, thereby contributing directly to animal welfare and the mitigation of illegal Wildlife trade. In some cases, captive populations also serve as insurance populations for threatened species and as sources for future reintroductions or reinforcement of wild populations, supporting long-term conservation objectives.

Captive wildlife management further contributes to conservation through public education, awareness raising, and research. Zoos and sanctuaries provide opportunities for environmental education, helping to build public appreciation of Wildlife, promote conservation ethics, and foster support for protected area management. Research conducted in captive settings such as studies on animal health, behaviour, reproduction, and disease can generate knowledge that is difficult to obtain in the wild and can inform species management, veterinary interventions, and One Health approaches.

Including captive and semi-captive wildlife in the State of Wildlife Resources Report is therefore essential for providing a comprehensive picture of Uganda’s wildlife assets and management responsibilities. It allows assessment of species composition, conservation status, and trends within managed facilities, highlights the role of ex-situ conservation in complementing in-situ efforts, and supports improved regulation, welfare standards, and planning. By documenting this





component, the report strengthens accountability, informs policy and investment decisions, and reinforces the integrated approach needed to conserve Uganda’s wildlife heritage across both wild and managed settings.

For the purpose of this report, we shall share highlights of the wildlife in four captive and semi-captive settings; UWEC, Ngamba Chimpanzee Sanctuary, Ziwa Rhino Sanctuary and CTC.

### Uganda Wildlife Conservation and Education Centre (UWEC)

As of December 2025, a total of 239 individual animals representing 62 species of animals (mammalian n=30 species, reptilian n=10 species, and aves n=22 species) were recorded across captive facilities (Table 9). Of the classes of species, among the mammalian species, 5 are globally endangered, of the reptilia species, 1 is vulnerable and among the Aves, 4 species are endangered (Table 9).

Table 9. Wild animal species at UWEC and their global conservation status

Scientific Name	Common Name	Global Conservation Status (by IUCN)	Total Number of Individuals
<i>Giraffa camelopardalis camelopardalis</i>	Nubian Giraffe	Critically Endangered (CR)	4
<i>Syncerus caffer</i>	African Buffalo	Least Concern (LC)	4
<i>Kobus kob thomasi</i>	Uganda Kob	Least Concern (LC)	4
<i>Redunca redunca</i>	Reedbuck	Least Concern (LC)	1
<i>Aepyceros melampus</i>	Impala	Least Concern (LC)	2
<i>Kobus ellipsiprymnus</i>	Common Waterbuck	Least Concern (LC)	3
<i>Tragelaphus spekii</i>	Speke’s Sitatunga	Least Concern (LC)	1
<i>Tragelaphus sylvaticus</i>	Bushbuck	Least Concern (LC)	2
<i>Sylvicapra gramma</i>	Common Bush Duiker	Least Concern (LC)	1
<i>Taurotragus oryx</i>	Common Eland	Least Concern (LC)	2
<i>Loxodonta africana</i>	African Elephant	Endangered (EN)	2
<i>Ceratotherium simum</i>	Southern White Rhino	Near Threatened (NT)	2
<i>Equus quagga</i>	Zebras	Near Threatened (NT)	3
<i>Panthera tigris tigris</i>	Tiger	Endangered (EN)	6
<i>Leptailurus serval</i>	Serval Cat	Least Concern (LC)	3
<i>Caracal caracal</i>	Caracal	Least Concern (LC)	1
<i>Panthera leo</i>	African Lion	Vulnerable (VU)	18
<i>Panthera pardus</i>	Leopard	Vulnerable (VU)	1
<i>Caracal aurata</i>	African Golden Cat	Vulnerable (VU)	2
<i>Hydrictis maculicollis</i>	White-Spotted Necked Otter	Near Threatened (NT)	1
<i>Crocuta crocuta</i>	Spotted Hyena	Least Concern (LC)	2
<i>Canis adustus</i>	Side-striped Jackal	Least Concern (LC)	3
<i>Civettictis civetta</i>	African Civet	Least Concern (LC)	1
<i>Genetta genetta</i>	Common Genet Cat	Least Concern (LC)	5
<i>Pan troglodytes</i>	Common Chimpanzees	Endangered (EN)	27





<i>Papio anubis</i>	Olive Baboon	Least Concern (LC)	2
<i>Colobus guereza</i>	Black and White Colobus	Least Concern (LC)	1
<i>Perodicticus potto</i>	Bosman's Potto	Threatened (TR)	1
<i>Perodicticus ibeanus</i>	East African Potto	Least Concern (LC)	1
<i>Smutsia temminckii</i>	Ground Pangolin	Vulnerable (VU)	1
<i>Crocodylus niloticus</i>	Nile Crocodile	Least Concern (LC)	7
<i>Python sebae</i>	African Rock Python	Near Threatened (NT)	8
<i>Python regius</i>	Ball Python	Near Threatened (NT)	1
<i>Bitis gabonica</i>	Gaboon Viper	Vulnerable (VU)	2
<i>Naja haje</i>	Egyptian Cobra	Least Concern (LC)	3
<i>Naja melanoleuca</i>	Forest Cobra	Least Concern (LC)	3
<i>Stigmochelys pardalis</i>	Leopard Tortoise	Least Concern (LC)	5
<i>Kinixys belliana</i>	Bell's Hinged Tortoise	Vulnerable (VU)	3
<i>Pelomedusa subrufa</i>	African Helmeted Turtle	Least Concern (LC)	17
<i>Trachemys scripta elegans</i>	Red-Eared Slider Turtle	Least Concern (LC)	4
<i>Haliaeetus vocifer</i>	African Fish Eagle	Least Concern (LC)	1
<i>Aquila rapax</i>	Tawny Eagle	Least Concern (LC)	2
<i>Polyboroides typus</i>	Harrier Hawk	Least Concern (LC)	1
<i>Balaeniceps rex</i>	Shoebill Stork	Vulnerable (VU)	7
<i>Pavo cristatus</i>	Indian Peafowl	Least Concern (LC)	4
<i>Balearica regulorum</i>	Grey Crowned Crane	Endangered (EN)	7
<i>Psittacus erithacus</i>	African Grey Parrot	Endangered (EN)	22
<i>Poicephalus meyeri</i>	Meyer's Parrot	Least Concern (LC)	2
<i>Agapornis fischeri</i>	Fischer's Lovebird	Least Concern (LC)	9
<i>Alopochen aegyptiaca</i>	Egyptian Goose	Least Concern (LC)	1
<i>Ardea melanocephala</i>	Grey Heron	Least Concern (LC)	2
<i>Ardea alba</i>	Great Egret	Least Concern (LC)	3
<i>Struthio camelus</i>	African Ostrich	Least Concern (LC)	5
<i>Strix woodfordii</i>	African Wood Owl	Least Concern (LC)	3
<i>Tyto alba</i>	Barn Owl	Least Concern (LC)	3
<i>White-faced Scops Owl</i>	—	Least Concern (LC)	1
<i>Milvus migrans</i>	Black Kite	Least Concern (LC)	1
<i>Milvus aegyptius</i>	Yellow-billed Kite	Least Concern (LC)	1
<i>Gypohierax angolensis</i>	Palm-nut Vulture	Least Concern (LC)	1
<i>Aegyptius tracheliotos</i>	African Goshawk	Least Concern (LC)	1
<i>Bycanistes subcylindricus</i>	Black and White-casqued Hornbill	Least Concern (LC)	1
<i>Criniferzonurus</i>	Plantain Eater	Least Concern (LC)	1
			239





Table 10. Summary of Species Totals by Class and IUCN Category

Class	Total Species Recorded	IUCN Status Distribution
Mammalia	32 species	EN: 5
Reptilia	18 species	VU: 1
Aves	36 species	EN: 4
Total	86 species	--

### Ngamba Island Chimpanzee Sanctuary

Ngamba Island Chimpanzee Sanctuary plays a critical role in Uganda's national and regional chimpanzee conservation efforts. Established as a rescue and rehabilitation centre, the sanctuary provides lifelong care for orphaned and confiscated chimpanzees that cannot be returned to the wild due to their level of human habituation, health status, or lack of suitable release sites. Beyond animal welfare, Ngamba serves as an important hub for conservation education, public awareness, and advocacy against illegal wildlife trade, while also contributing to research on chimpanzee behaviour, health, and welfare.

As of 2025, Ngamba Chimpanzee Sanctuary is home to 54 chimpanzees, representing individuals rescued from poaching, illegal trade, and habitat loss across Uganda and the wider region. The sanctuary, therefore, complements in-situ conservation by safeguarding individuals that would otherwise be lost, while reinforcing Uganda's commitment to great ape conservation, animal welfare standards, and international obligations under wildlife conservation conventions.

### Ziwa Rhino Sanctuary

Ziwa Rhino Sanctuary supports a diverse assemblage of mammal species across multiple taxonomic orders, including carnivores, ungulates, primates, rodents, and specialised taxa such as pangolins and armadillos (Table 11). The species recorded span a wide ecological spectrum, from apex predators such as the leopard (*Panthera pardus*, Vulnerable) to habitat generalists like mongooses, civets, and duikers, most of which remain classified as Least Concern. However, the presence of Vulnerable species, such as the hippopotamus (*Hippopotamus amphibius*), leopard, and giant pangolin (*Smutsia gigantea*), alongside near-threatened species like the southern white rhinoceros (*Ceratotherium simum*), highlights the need for enhanced protection of the sanctuary.

As of 15 February 2026, Uganda's southern white rhinoceros population stands at 61 individuals with 55 housed at Ziwa Rhino Sanctuary, representing the country's only extant rhino population. This population has grown steadily through sustained protection, monitoring, and international partnerships, demonstrating the effectiveness of intensive management and secure sanctuaries in species recovery. Ziwa remains central to Uganda's long-term rhinoceros reintroduction strategy, providing a viable source population for future translocations into Protected Areas.





Table 11. Species that have been identified at Ziwa Rhino Sanctuary

Scientific Name	Common Name	Global Conservation Status (by IUCN)	Total Number of Camera Trap Events
<i>Civettictis civetta</i>	African Civet	LC	1
<i>Mungos mungo</i>	Banded Mongoose	LC	40
<i>Genetta maculata</i>	Blotched Genet	LC	180
<i>Helogale parvula</i>	Dwarf Mongoose	LC	48
<i>Mellivora capensis</i>	Honey Badger	LC	9
<i>Panthera pardus</i>	Leopard	VU	6
<i>Atilax paludinosus</i>	Marsh Mongoose	LC	5
<i>Leptailurus serval</i>	Serval	LC	2
<i>Canis adustus</i>	Side-striped Jackal	LC	2
<i>Ichneumia albicauda</i>	White-tailed Mongoose	LC	21
<i>Tragelaphus</i> sp. .	Bushbuck	LC	604
<i>Potamochoerus larvatus</i>	Bushpig	LC	91
<i>Sylvicapra grimmia</i>	Common Duiker	LC	537
<i>Hippopotamus amphibius</i>	Hippopotamus	VU	1
<i>Kobus kob thomasi</i>	Uganda Kob	LC	20
<i>Ourebia ourebi</i>	Oribi	LC	3
<i>Redunca redunca</i>	Reedbuck	LC	4
<i>Phacochoerus africanus</i>	Warthog	LC	252
<i>Kobus ellipsiprymnus</i>	Waterbuck	LC	24
<i>Lagomorpha</i> sp.	Rabbit/Hare species	LC	62
<i>Ceratotherium simum</i>	White Rhinoceros	NT	25
<i>Smutsia gigantea</i>	Giant Pangolin	VU	3
<i>Colobus guereza</i>	Black and White Colobus Monkey	LC	3
<i>Chlorocebus tantalus</i>	Tantalus Monkey	LC	307
<i>Hystrix cristata</i>	African Crested Porcupine	LC	73
<i>Thryonomys gregorianus</i>	Cane Rat	LC	1
<i>Cricetomys</i> sp.	Giant Pouched Rat	LC	170
<i>Xerus erythropus</i>	Striped Ground Squirrel	LC	63
<i>Orycteropus afer</i>	Aardvark	LC	120





### Conservation Through Commercialisation (CTC) Conservation Centre

The Conservation Through Commercialisation (CTC) Conservation Centre is a privately owned wildlife facility established in Uganda in 2015. It is located in Lukalu, Butambala District. The facility houses a diversity of species ranging from carnivores such as lions, hyenas, and jackals to herbivores like giraffe, kob, and impala, as well as reptiles including tortoises, vipers, and crocodiles. The diverse species that have been identified at CTC are listed in Table 12.

Table 12. Species that have been identified at CTC conservation Centre

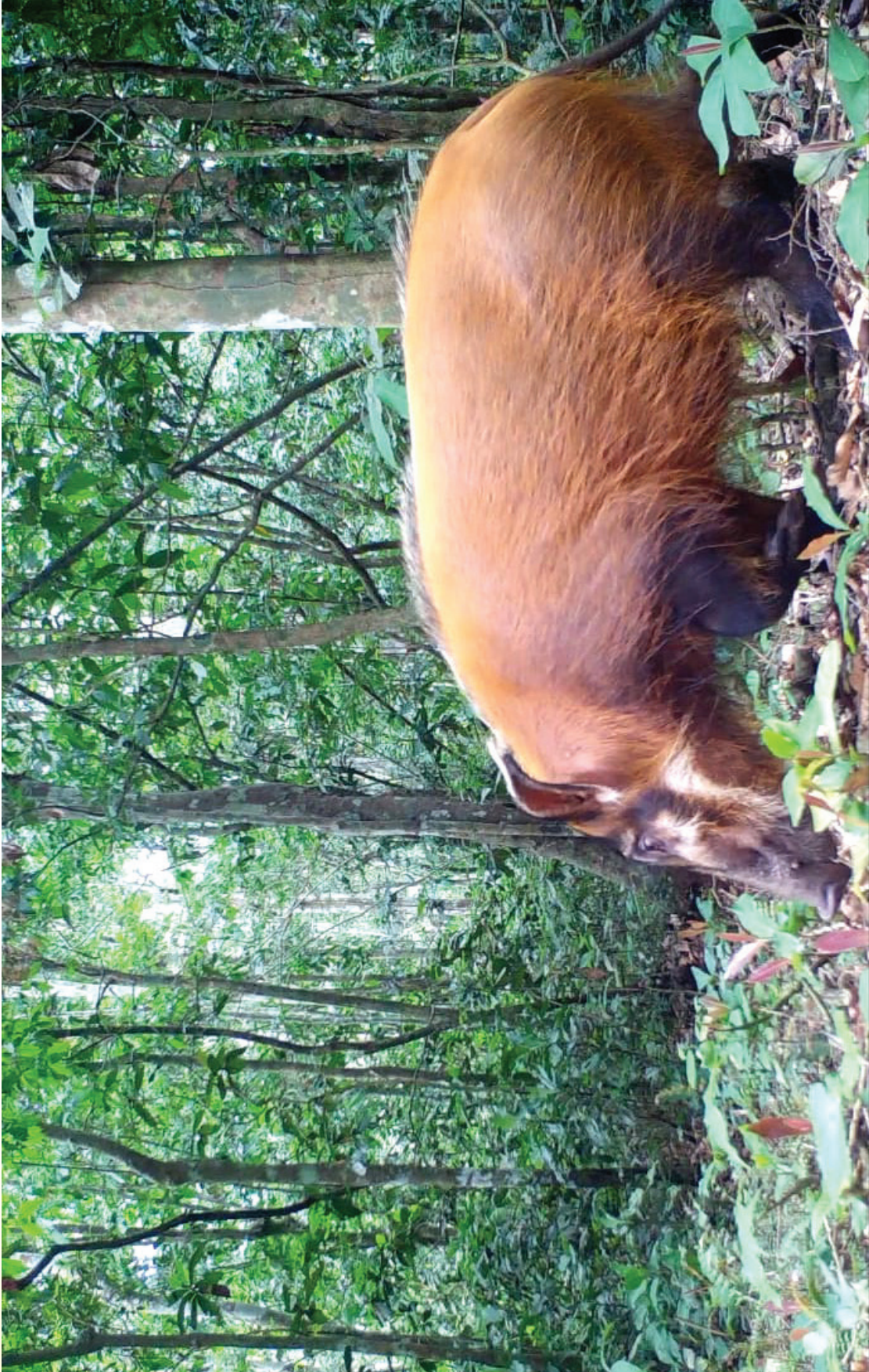
Scientific Name	Common Name	Global Conservation Status (by IUCN)	Current Number of Individuals held on site
<i>Caracal aurata</i>	African Golden Cat	VU	14
<i>Caracal caracal</i>	Caracal	LC	1
<i>Leptailurus serval</i>	Serval	LC	7
<i>Genetta genetta</i>	Genet	LC	7
<i>Nandinia binotata</i>	Palm Civet	LC	3
<i>Otocyon megalotis</i>	Bat-eared Fox	LC	14
<i>Galago matschiei</i>	Dusky Bushbaby	LC	9
<i>Galago senegalensis</i>	Senegal Bushbaby	LC	1
<i>Crocuta crocuta</i>	Spotted Hyena	LC	6
<i>Hyaena hyaena</i>	Striped Hyena	NT	4
<i>Lycaon pictus</i>	African Painted Dog	EN	7
<i>Canis adustus</i>	Side-striped Jackal	LC	12
<i>Canis mesomelas</i>	Black-backed Jackal	LC	9
<i>Vulpes zerda</i>	Fennec Fox	LC	2
<i>Panthera tigris</i>	Tiger	EN	2
<i>Panthera leo</i>	Lion	VU	39
<i>Equus quagga</i>	Zebra	NT	7
<i>Giraffa camelopardalis rothschildi</i>	Nubian Giraffe	EN	6
<i>Kobus ellipsiprymnus</i>	Waterbuck	LC	2
<i>Kobus kob thomasi</i>	Uganda Kob	LC	22
<i>Aepyceros melampus</i>	Impala	LC	18
<i>Tragelaphus scriptus</i>	Bushbuck	LC	2





<i>Tragelaphus spekii</i>	Sitatunga	LC	3
<i>Phacochoerus africanus</i>	Warthog	LC	4
<i>Varecia variegata</i>	Black and White Ruffed Lemur	CR	2
<i>Eulemur fulvus</i>	Red-tailed Lemur	EN	2
<i>Lemur catta</i>	Ring-tailed Lemur	EN	12
<i>Perodicticus potto</i>	Potto	LC	1
<i>Hylochoerus meinertzhageni</i>	Giant Forest Hog	LC	4
<i>Procavia capensis</i>	Rock Hyrax	LC	3
<i>Hystrix cristata</i>	Porcupine	LC	1
<i>Stigmochelys pardalis</i>	Leopard Tortoise	LC	464
<i>Crocodylus niloticus</i>	Nile Crocodile	LC	5
<i>Bitis gabonica</i>	Gaboon Viper	VU	32
<i>Bitis nasicornis</i>	Rhinoceros Horned Viper	LC	12
<i>Bitis arietans</i>	Puff Adder	LC	1
<i>Atheris nitschei</i>	Great Lakes Bush Viper	LC	2
<i>Atheris squamigera</i>	Rough-scaled Bush Viper	LC	6
<i>Dasypeltis scabra</i>	Egg-eating Snake	LC	4
<i>Trioceros hoehnelii</i>	Hoehnelis Casqued Chameleon	LC	4
<i>Python regius</i>	Ball Python	NT	4
<i>Python sebae</i>	Rock Python	NT	2
<i>Naja melanoleuca</i>	Gold's Tree Cobra	LC	2
<i>Thrasops jacksonii</i>	Jackson's Tree Snake	LC	3
<i>Psittacus erithacus</i>	African Grey Parrot	EN	6
<i>Pavo cristatus</i>	Peacock	LC	2
<i>Struthio camelus</i>	Ostrich	LC	6
<i>Buteo augur</i>	Augur Buzzard	LC	1
<i>Brachylophus vitiensis</i>	Fiji Crested Iguanas	CEN	14
<i>Conolophus subcristatus</i>	Galapagos Land Iguana	VU	3





.Red River hog in Semutiki NP. (Photo: Chester Zoo)





# Chapter FOUR

## 4. Land Use and Land Cover change in Uganda's Protected Areas

Land Use and Land Cover (LULC) change is a key driver shaping the condition, functionality, and resilience of wildlife habitats in Uganda. Changes in vegetation structure, wetland extent, water bodies, and human land uses directly influence species distribution, ecosystem processes, and the capacity of Protected Areas to sustain wildlife and ecosystem services. Long-term LULC dynamics reflect the combined effects of conservation management, climate variability, fire regimes, invasive species, human settlement pressure, and broader land-use trends in surrounding landscapes.

Across Uganda's Protected Areas, recent decades have been characterized by contrasting patterns of habitat recovery and transformation. In some landscapes, reduced cultivation and improved protection have enabled the recovery of natural vegetation, particularly woodland and forest cover. In others, woody encroachment, wetland contraction, and localized expansion of farmland and built-up areas indicate emerging pressures that may alter habitat suitability for key wildlife species. Understanding these spatial and temporal changes is essential for interpreting wildlife population trends and distribution, guiding habitat management interventions, and strengthening landscape-level conservation planning.

This section of the State of Wildlife Resources Report focuses on land use and land cover changes in four major national parks; Kidepo Valley National Park, Murchison Falls National Park, Lake Mburo National Park, and Queen Elizabeth National Park, which together represent a broad range of Uganda's savannah, woodland, wetland, and forest ecosystems. The analysis examines changes between 1990 and 2024, highlighting long-term habitat transitions relevant to Wildlife conservation and management. Data used in this section was *sourced from*; (Esri, NASA, NGA, USGS, Tom Tom, Garmin, FAO, NOAA and open Street Map and GIS user community (1990, 2015, 2020, 2024), National Forest Authority (NFA), and satellite imagery analysis was done by Uganda Wildlife Authority (UWA). All units used under land use and land cover changes are in square meters (M<sup>2</sup>). All satellites readings used in this report were read in February for each of the years. The invasion and extent of coverage of the invasive and native problem plant species will be determined in future assessments.

For consistency and comparability, land cover classes were harmonized into the following final variables, based on merged categories used in the analysis:

- Forest/Woodland: Woodland + Trees
- Forest (Closed Canopy): Broadleaved Trees + Tropical High Forest + Depleted Tropical High Forest
- Grassland/Rangeland: Grassland + Rangeland
- Wetlands: Wetland + Flooded Vegetation
- Water: Water + Open Water
- Farmland: Subsistence Farmland + Uniform Farmland + Crops
- Built-up Areas: Urban/Built Area
- Bare / Other: Bare ground, clouds and other minor classes (reported where relevant)

By tracking changes in these key land cover types, this section provides critical context for interpreting wildlife trends, identifying emerging ecological risks, and informing adaptive management aimed at maintaining habitat diversity, ecological integrity, and the long-term conservation value of Uganda's protected area network.





## 4.1 Land Use and Land Cover Change in Kidepo Valley National Park

Between 1990 and 2024, Kidepo Valley National Park has exhibited a strong recovery and expansion of natural savannah ecosystems. Grassland and rangeland cover increased by more than 157 million units, while woodland cover more than doubled, reflecting reduced disturbance, improved protection, and natural vegetation regeneration. At the same time, farmland and built-up areas declined to negligible levels, indicating effective containment of agricultural encroachment and minimal permanent settlement pressure (Table 13, Figure 88 and Figure 89). Collectively, these trends point to increasing ecological integrity and reinforce Kidepo’s role as one of Uganda’s most intact rangeland ecosystems, capable of sustaining wide-ranging herbivores, particularly large buffalo herds, and their associated predator communities.

However, while the overall increase in woodland, tree cover, and rangeland is a positive indicator of vegetation recovery, it underscores the need for detailed vegetation mapping and ground verification to determine the composition and quality of the expanding plant communities. There is a growing concern that a proportion of the increasing vegetation may consist of invasive or less palatable plant species that do not adequately support herbivore populations. The observed decline in lion numbers and the relatively low densities of herbivores in the northern sector of Kidepo Valley National Park suggest that emerging vegetation changes may be affecting forage availability and habitat suitability. Targeted vegetation assessments are therefore essential to distinguish between beneficial habitat recovery and ecological change driven by invasive species, and to guide adaptive habitat management interventions.

Table 13. Land use land cover change in Kidepo Valley National Park, 1990-2024

Variable	1990	2015	2020	2024	Change (1990-2024)
Forest / Woodland	80,968,735	52,189,737	197,029,975	200,752,790	+119,784,055
Grassland / Rangeland	1,091,695,866	1,157,778,744	1,232,916,966	1,248,847,879	+157,152,013
Farmland	4,711,991	184,360	9,307	387,476	-4,324,515
Water	-	-	4,008	4,946	+4,946



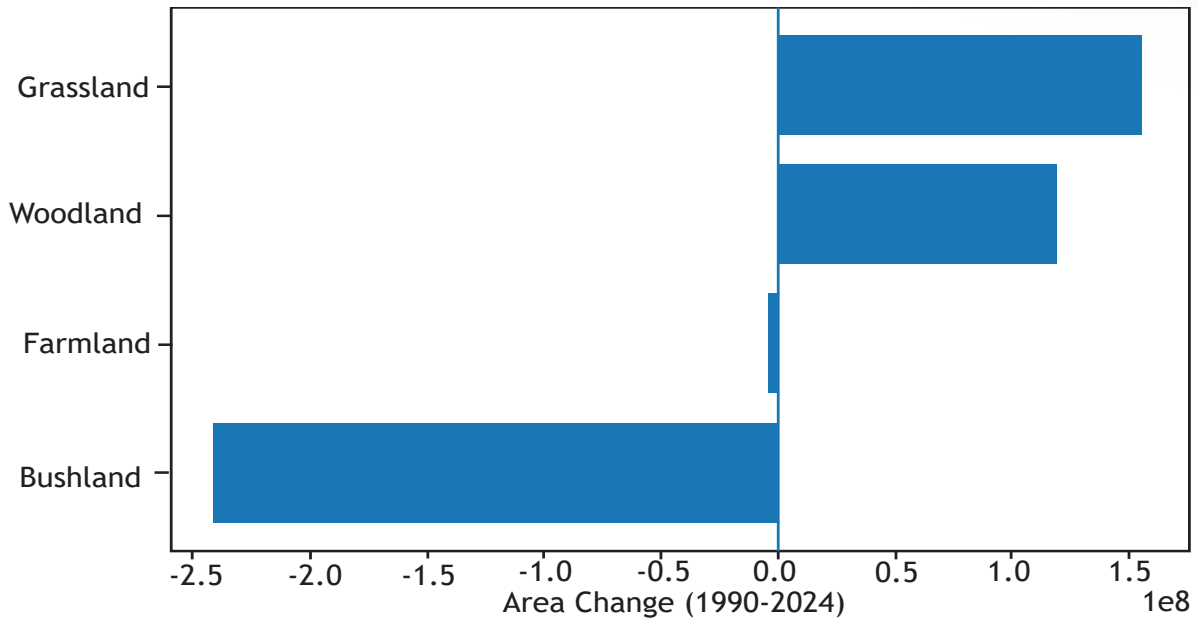


Figure 88. Net Land Use and Land Cover change in Kidepo Valley National Park (1990-2024)

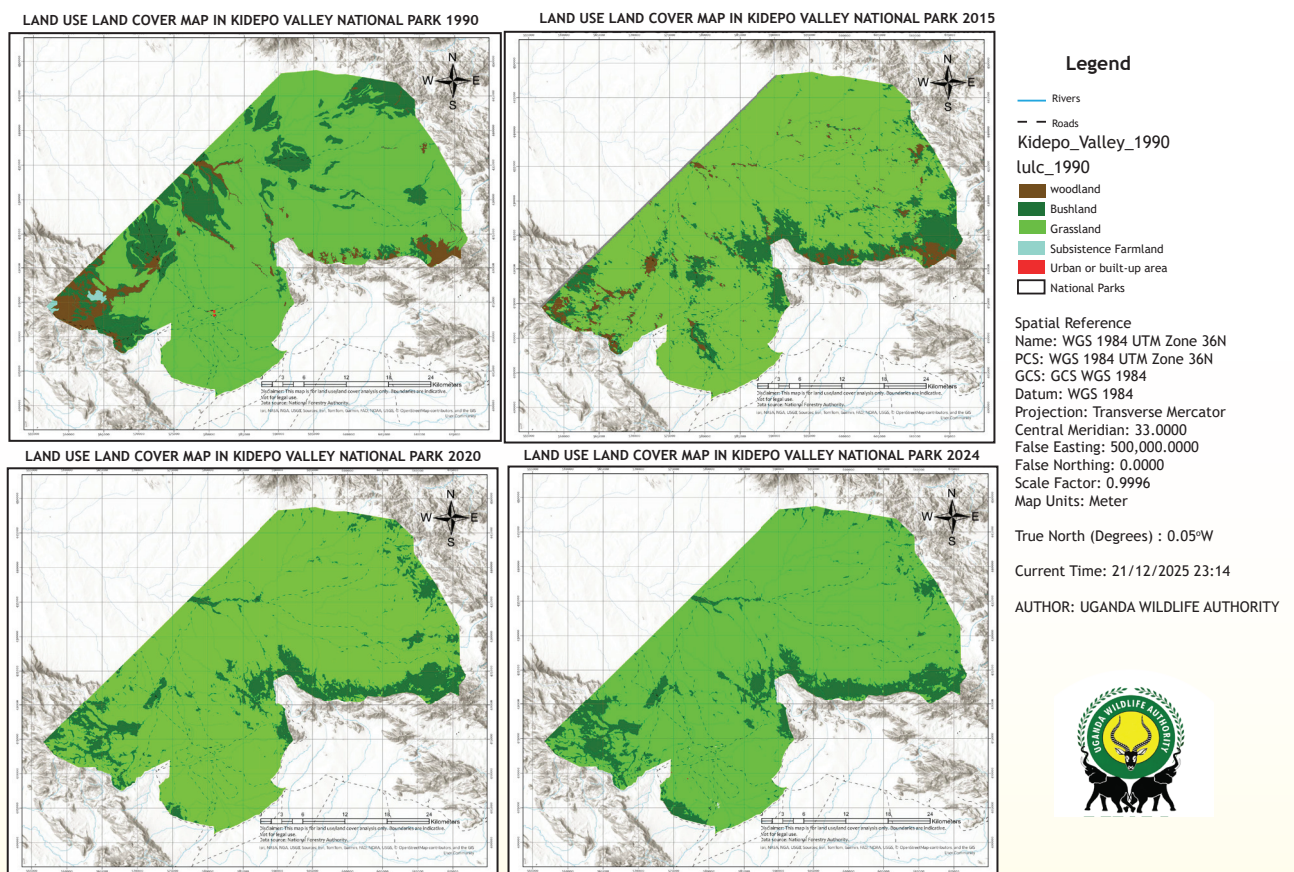


Figure 89. Maps showing the Land Use and Land Cover Change in Kidepo Valley National Park (1990-2024)



## 4.2 Land Use and Land Cover change in Lake Mburo National Park

Between 1990 and 2024, Lake Mburo National Park recorded a pronounced increase in woodland and tree cover, expanding by approximately 193 million units, alongside a substantial decline in grassland/rangeland (-65 million units) and wetlands (-36.6 million units) (Table 14, Figure 90 and Figure 91). This pattern indicates progressive woody encroachment, a well-documented ecological process in the park. Much of the expanding woody vegetation is dominated by invasive and aggressive native species, notably *Acacia hockii*, *Acacia sieberiana*, *Lantana camara*, and *Dichrostachys cinerea*, which proliferate under reduced fire regimes and changing rainfall patterns. While some of these species provide forage for browsers such as giraffes, they are largely unpalatable to key grazers including zebra, impala, topi, and eland, potentially reducing habitat suitability for these species and altering herbivore community structure. Some observed changes in 2024 could also be attributed to the invasive plants' removal, a strategy employed by UWA and partners in the effort of restoring habitats. The exact extent of coverage of these vegetation cover and species needs to be investigated.

Wetland loss remains a significant concern, with wetland cover declining sharply despite a modest increase in open water extent (+4 million units). This suggests localised hydrological alteration, sedimentation, and vegetation infilling of wetlands rather than a true expansion of aquatic habitats. Given the park's importance as a savanna-wetland mosaic, continued wetland degradation poses risks to water-dependent species, bird populations, and ecosystem services.

Farmland within the park declined markedly over the assessment period, reflecting strengthened law enforcement, improved boundary management, and successful reduction of agricultural encroachment. The small increase in built-up areas (+268,651 units) is largely attributable to legitimate park infrastructure, including UWA administrative facilities, ranger outposts, tourism lodges, and visitor services, rather than unplanned settlement. Overall, the observed land-use and land-cover changes underscore the need for active habitat management, particularly controlled burning, invasive species control, and wetland restoration, to maintain open grasslands, preserve ecological heterogeneity, and sustain the park's grazing wildlife populations and tourism value.

Table 14. Land Use and Land Cover change in Lake Mburo National Park, 1990-2024

Variable	1990	2015	2020	2024	Change
Forest / Woodland	19,056,064	40,507,908	245,205,108	212,231,743	+193,175,679
Grassland / Rangeland	199,753,545	208,551,615	101,956,055	134,285,611	-65,467,934
Wetlands	38,002,437	54,256,690	61,389	1,421,427	-36,581,010
Water	15,025,168	19,623,298	18,837,009	19,023,757	+3,998,589
Farmland	1,088,822	7,344,279	290,540	597,731	-491,091
Built-up	-	-	199,541	268,651	+268,651



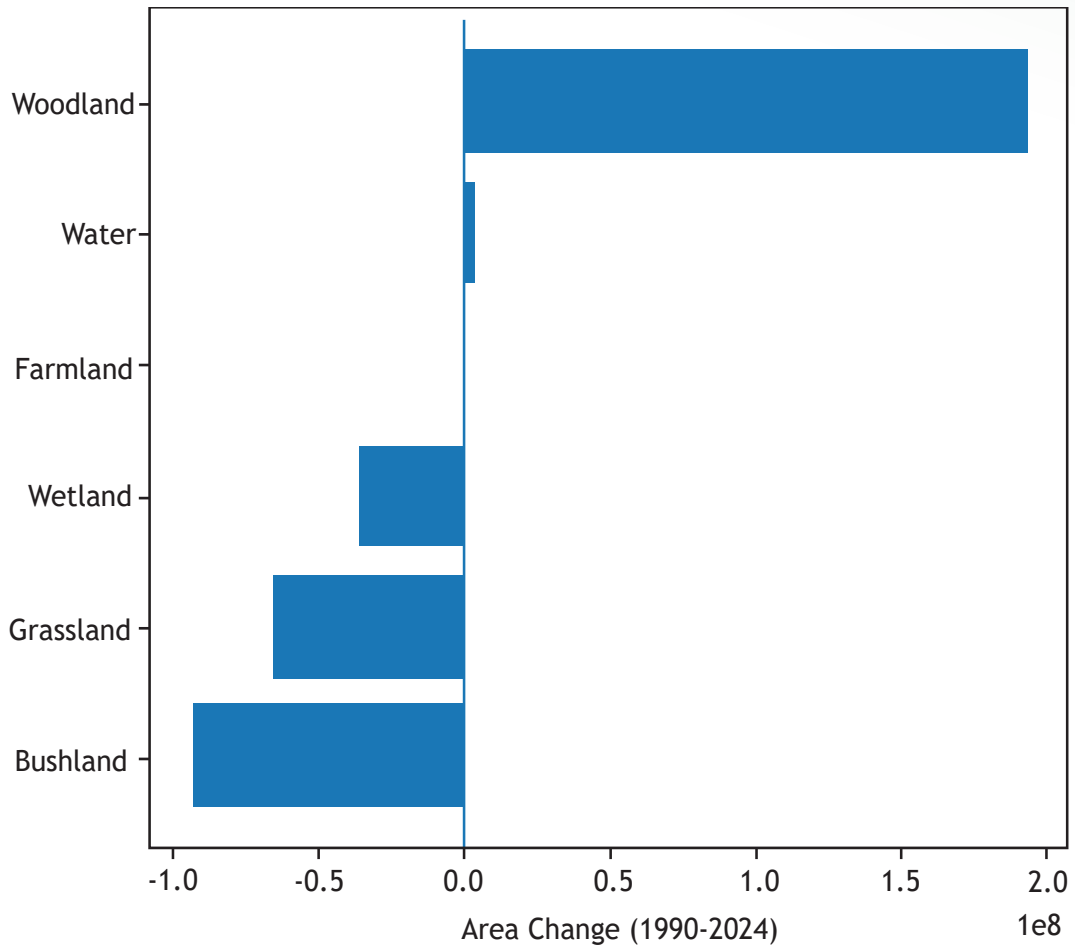


Figure 90. *Net land use and land cover change in Lake Mburo National Park (1990-2024)*



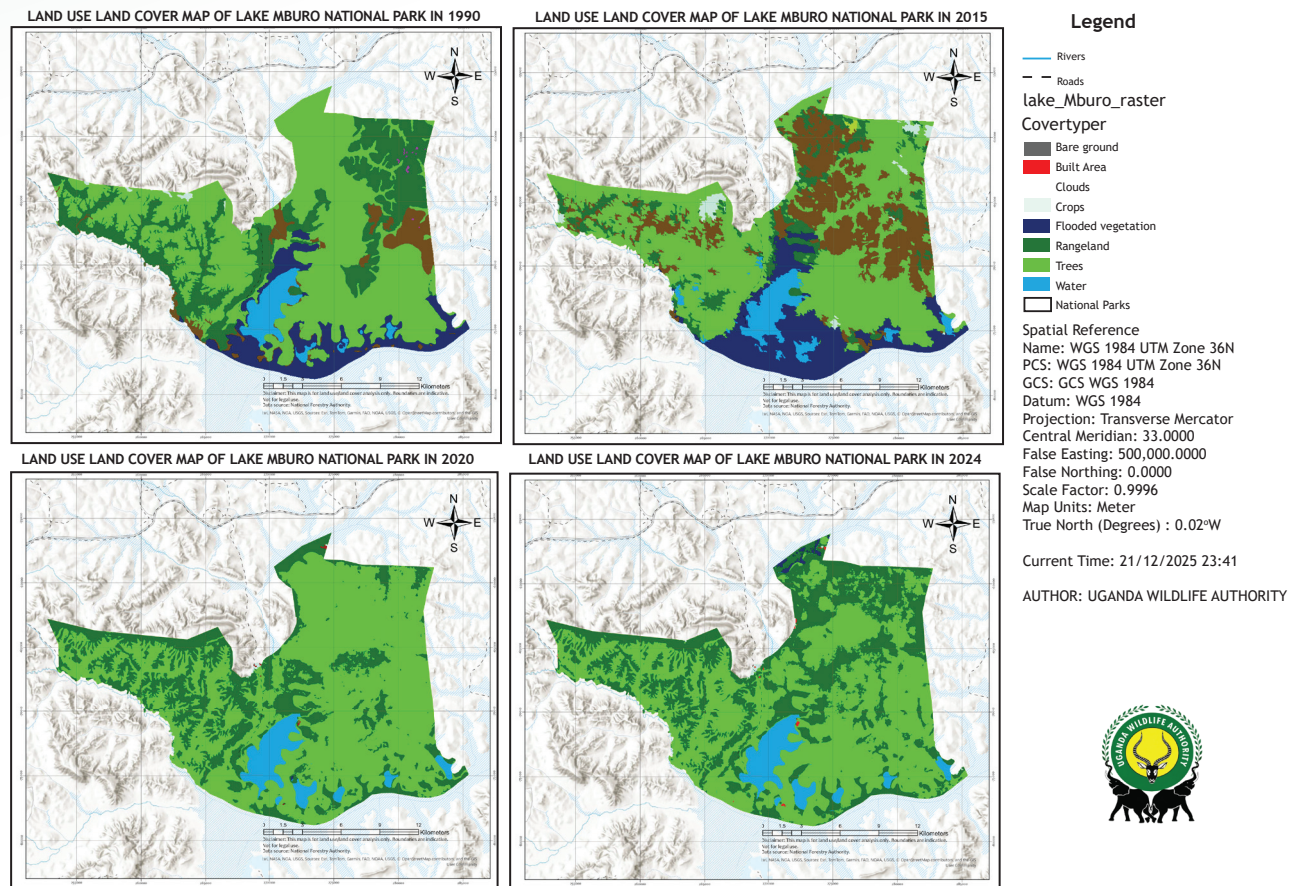


Figure 91. Map showing the Land Use and Land cover change in Lake Mburo National Park (1990-2024)

### 4.3 Land Use and Land Cover Change in Murchison Falls National Park

Between 1990 and 2024, Murchison Falls National Park recorded the largest absolute increase in woodland and forest cover among the assessed Protected Areas, with tree and woodland extent expanding by over 1.29 billion units. This dramatic increase coincided with a substantial decline in grassland and rangeland cover (-943 million units) and a marked reduction in wetlands (-41.8 million units), indicating a major shift in vegetation structure. While increased tree cover may enhance habitat for some forest-associated species, the loss of open grassland and wetland habitats raises concerns for grazing herbivores and species dependent on floodplain ecosystems (Table 15, Figure 92 and Figure 93).

The observed expansion of woody vegetation is plausibly linked to a combination of fire suppression, climate variability, and the spread of invasive or aggressive native species, notably *Borassus* palm and *Acacia* species, which are increasingly dominant in several parts of the park. Although some of these species provide forage for browsers such as giraffe, they are largely unsuitable for bulk grazers, potentially contributing to reduced forage quality and altered wildlife distribution. The decline in grassland and wetland habitats may also disrupt predator-prey dynamics, particularly affecting species that rely on open landscapes for hunting and movement.

Changes in water extent and built-up areas further reflect evolving ecological and management dynamics within MFNP. Water coverage increased by approximately 34.6 million units, likely





influenced by hydrological variability along the Nile system and seasonal flooding patterns, while built-up areas expanded modestly, and primarily associated with park infrastructure development, tourism facilities, and management installations. Farmland within the park declined significantly (-16 million units), indicating improved control of encroachment. However, the scale and ecological implications of woody encroachment—particularly the relative contribution of invasive versus native species—remain insufficiently quantified, underscoring the need for detailed vegetation mapping and species-specific assessments to inform adaptive habitat management and restoration planning.

Table 15. Land Use and Land Cover change in Murchison Falls National Park, 1990-2024

Variable	1990	2015	2020	2024	Change
Forest / Woodland	1,470,548,571	1,295,870,245	2,603,908,106	2,760,686,591	+1,290,138,020
Grassland/ Rangeland	1,982,880,378	2,040,549,927	1,194,514,477	1,039,916,985	-942,963,393
Wetlands	44,045,268	52,876,460	8,595,018	2,248,943	-41,796,325
Water	53,362,170	37,004,692	60,373,406	87,992,943	+34,630,773
Farmland	25,256,086	34,683,202	7,771,075	9,236,705	-16,019,381
Built-up	-	913,221	1,197,946	1,978,431	+1,978,431

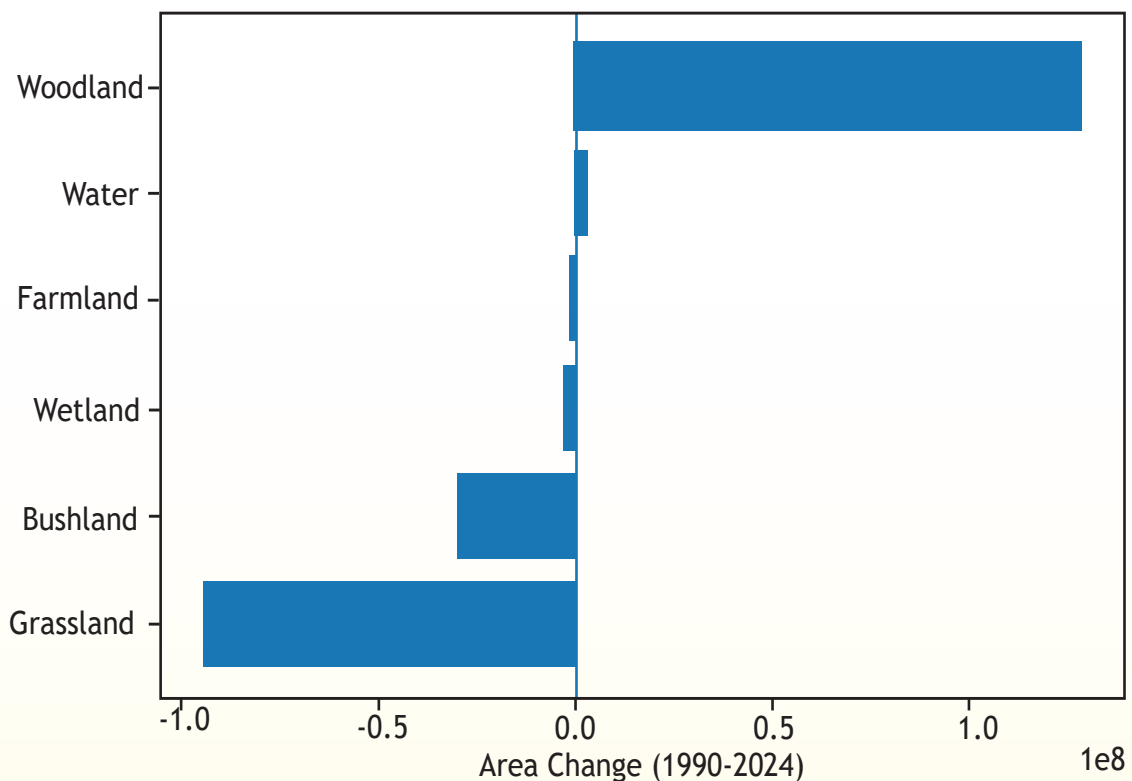


Figure 92. Net Land Use and Land Cover change on Murchison Falls National Park (1990-2024)



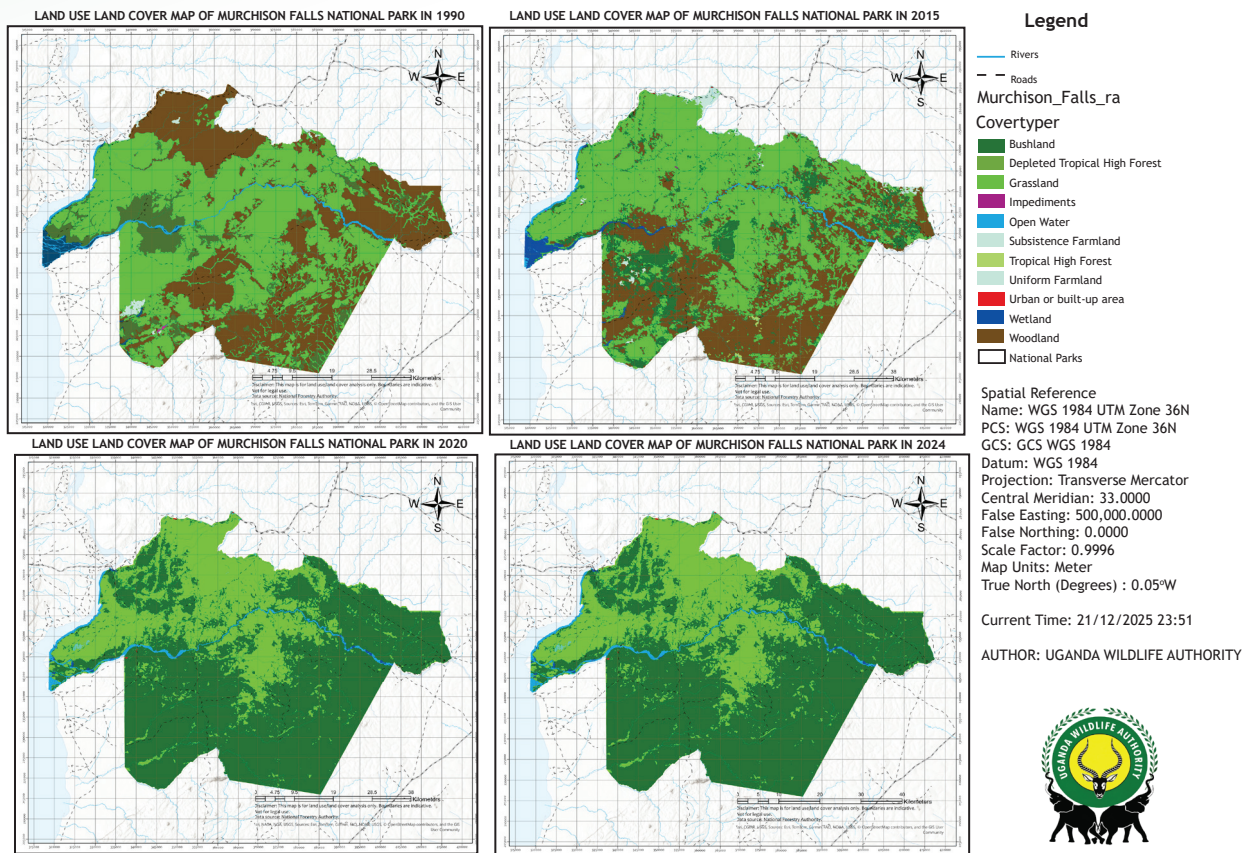


Figure 93. Maps showing Land Use and Land Cover change in Murchison falls National Park, 1990-2024

## 4.5 Land Use and Land Cover change in Queen Elizabeth National Park

Between 1990 and 2024, Queen Elizabeth National Park has experienced a substantial expansion of woodland and forest cover, with an increase of approximately 789 million units. This change has occurred alongside a notable decline in wetlands and a moderate reduction in grassland/rangeland extent. While some increase in tree and woody cover may reflect natural regeneration and reduced large-scale cultivation within the park, field observations and management experience indicate that a significant proportion of this expansion is driven by invasive and aggressive woody species (Table 16, Figure 94 and Figure 95). Dominant among these are *Dichrostachys cinerea*, *Imperata cylindrica*, and *Lantana camara*, which are well known for forming dense thickets that suppress grasses and reduce habitat suitability for many grazing and mixed-feeding wildlife species.

The sharp loss of wetlands, exceeding 157 million units, represents a critical ecological concern, given the park's reliance on wetland systems to support hippos, waterbirds, fisheries, and tourism activities. Although open water extent increased modestly over the same period, this does not compensate for the loss of wetland vegetation, which plays a vital role in nutrient cycling, breeding habitats, and buffering hydrological variability. The reduction in grassland/rangeland, though less dramatic than in some other parks, may be linked to both woody encroachment and altered fire regimes, with potential consequences for herbivore distribution and predator-prey dynamics across the savanna plains.





Farmland declined overall between 1990 and 2024, reflecting improved protection and containment of agricultural encroachment within park boundaries. However, built-up areas increased markedly, largely associated with the expansion of park infrastructure, tourism facilities, and development within enclave and fishing communities. Together, these trends highlight the need for integrated landscape and habitat management in Queen Elizabeth National Park, with particular emphasis on controlling invasive woody species, restoring wetlands, and maintaining a balanced mosaic of grassland, woodland, and aquatic habitats that fortify the park’s exceptional wildlife and tourism value.

Table 16. Land Use Land Cover change in Queen Elizabeth National Park, 1990-2024

Variable	1990	2015	2020	2024	Change
Forest / Woodland	407,331,120	310,380,241	1,234,002,617	1,196,360,336	<b>+789,029,216</b>
Grassland / Rangeland	833,290,193	859,488,566	756,547,799	777,049,254	-56,240,939
Wetlands	172,292,835	145,068,872	12,065,111	14,474,407	<b>-157,818,428</b>
Water	63,908,875	69,518,664	70,299,990	75,945,090	+12,036,215
Farmland	14,702,518	12,784,395	3,927,049	8,938,320	-5,764,198
Built-up	2,146,044	1,239,211	24,937,190	28,405,228	+26,259,184

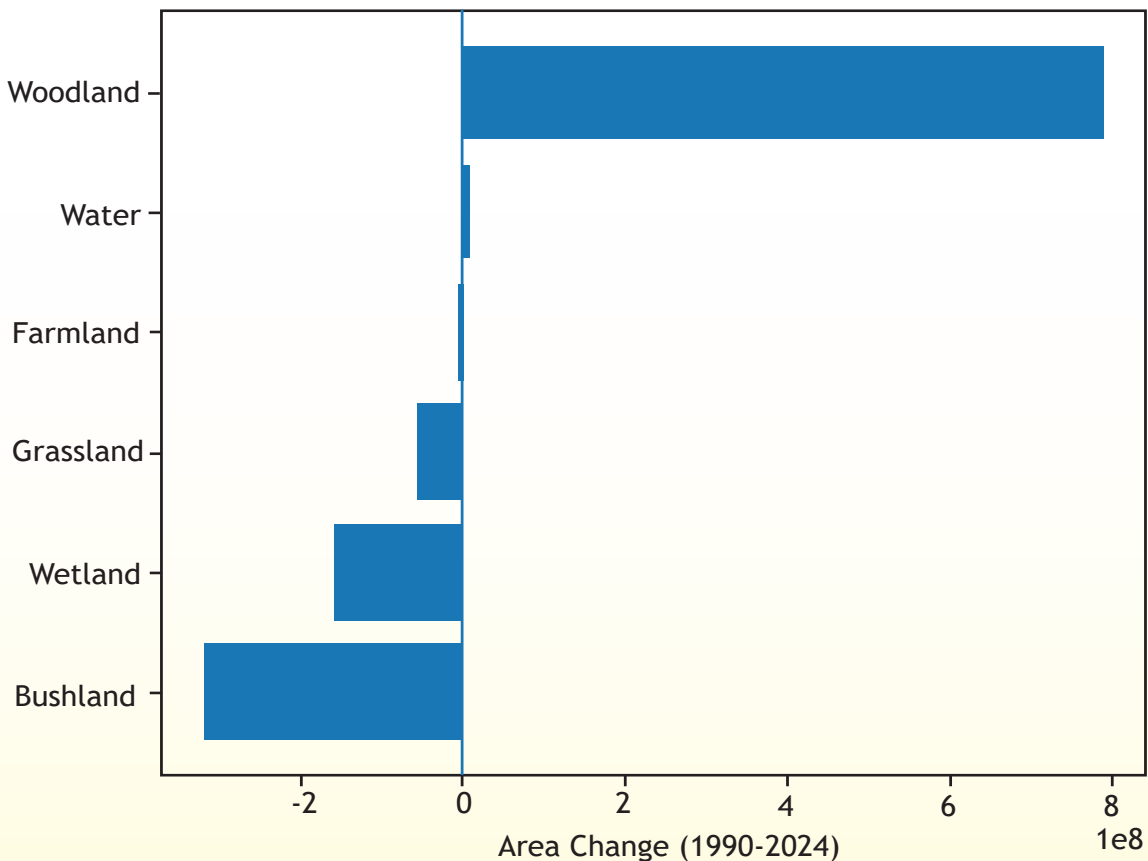
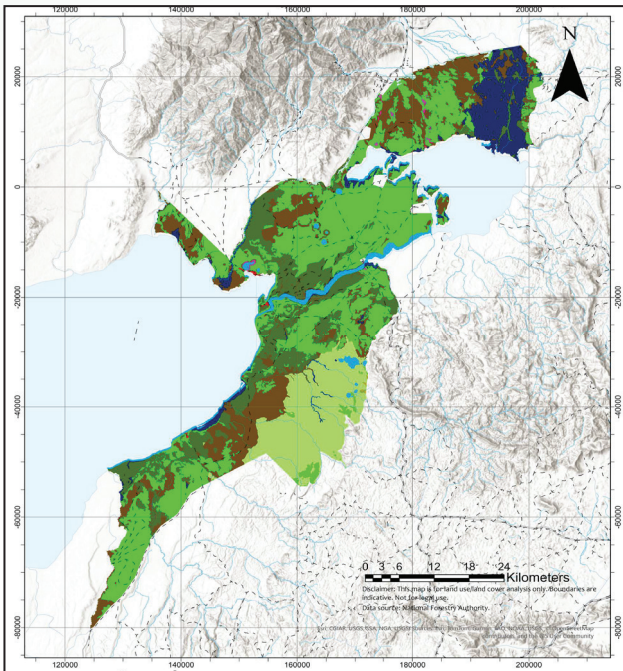


Figure 94. Net Land Use and Land Cover change in Queen Elizabeth National Park (1990-2024)

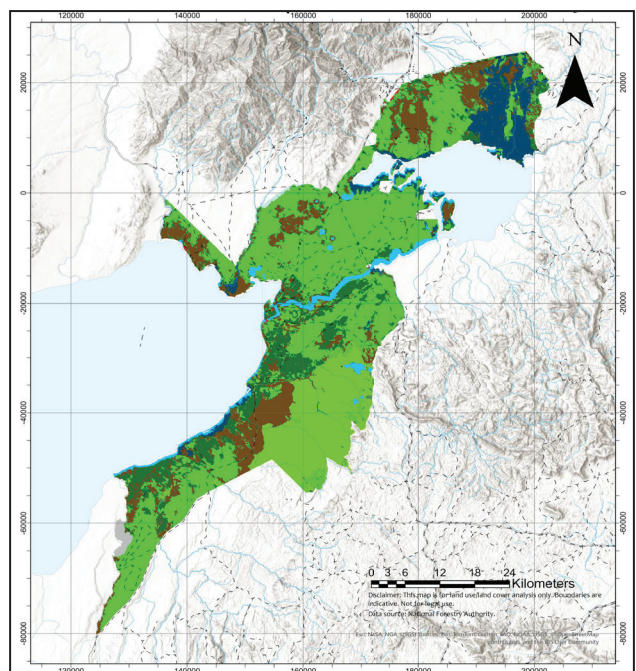




LAND USE LAND COVER MAP OF QUEEN ELIZABETH NATIONAL PARK IN 1990



LAND USE LAND COVER MAP OF QUEEN ELIZABETH NATIONAL PARK IN 2015



**Legend**

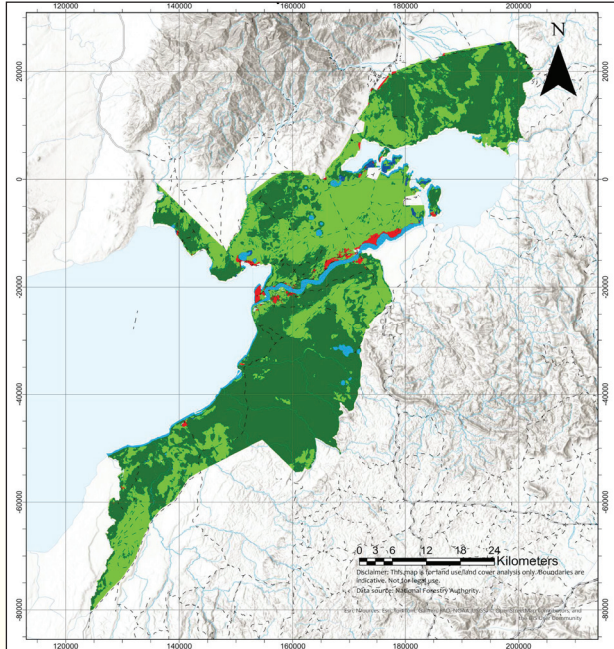
- Rivers
- Roads
- Queen\_Eliza**
- lulc\_1990**
- Broadleaved Tress
- Tropical High Forest
- Depleted Tropical High Forest
- Woodland
- Bushland
- Grassland
- Wetland
- Subsistence Uniform Farmland
- Union Farmland
- Urban or built-up area
- Open water
- Impediments
- National Parks

Spatial Reference  
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 PCS: WGS 1984 UTM Zone 36N  
 GCS: GCS WGS 1984  
 Datum: WGS 1984  
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 False Northing: 0.0000

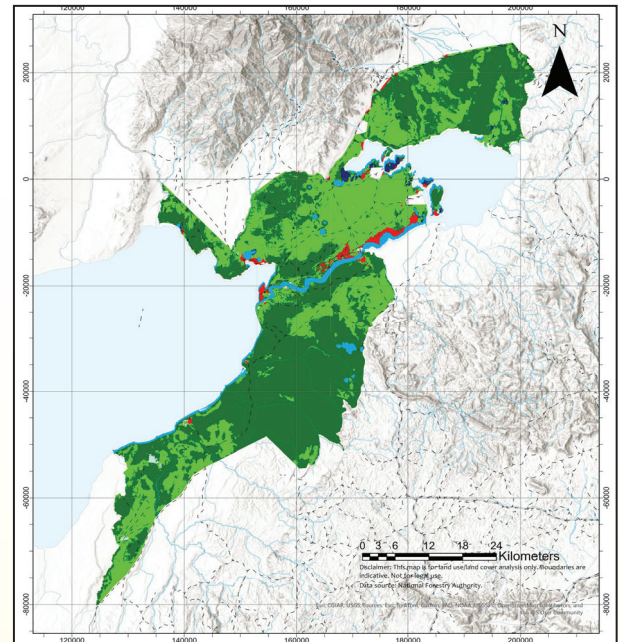
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 Map Units: Meter  
 True North (Degrees) : 0.05°W  
 Current Time: 21/12/2025 23:51  
 AUTHOR: UGANDA WILDLIFE  
 AUTHORITY



LAND USE LAND COVER MAP OF QUEEN ELIZABETH NATIONAL PARK IN 2020



LAND USE LAND COVER MAP OF QUEEN ELIZABETH NATIONAL PARK IN 2024



**Legend**

- Rivers
- Roads
- Queen\_Eliza**
- covertype**
- Bare ground
- Built Area Clouds
- Crops
- Flooded Vegetation
- Rangeland
- Trees
- Water
- National Parks

Spatial Reference  
 Name: WGS 1984 UTM Zone 36N  
 PCS: WGS 1984 UTM Zone 36N  
 GCS: GCS WGS 1984  
 Datum: WGS 1984  
 Projection: Transverse Mercator  
 Central Meridian: 33.0000  
 False Easting: 500,000.0000  
 False Northing: 0.0000

Scale Factor: 0.9996  
 Map Units: Meter  
 True North (Degrees) : 0.05°W  
 Current Time: 21/12/2025 23:51  
 AUTHOR: UGANDA WILDLIFE  
 AUTHORITY



Figure 95. Maps showing the Land Use and Land Cover changes in Queen Elizabeth National Park, 1990-2024





## Chapter FIVE

# 5. Responses by Uganda Wildlife Authority and its Partners

In light of the mounting pressures on Uganda's wildlife resources, a wide range of conservation interventions have been implemented at national, landscape, and community levels. These responses are designed to safeguard species and habitats, mitigate human-wildlife conflict, and secure the socio-economic benefits that wildlife and ecosystems provide. Efforts include anti-poaching operations, habitat manipulation and restoration programmes, strengthened policy and legal frameworks, and collaborative initiatives with local communities. Community-based approaches such as wildlife scouts, user rights, alternative livelihood programmes, compensation and revenue sharing initiative have been instrumental in reducing conflict and building stewardship among resource-dependent populations. At the same time, species translocations, ecological monitoring protocols, and investment in protected area management have contributed to the recovery of some key populations and habitats. Documenting these measures and their outcomes is vital for assessing progress, identifying gaps, and guiding adaptive management towards long-term conservation goals.

### 5.1 Anti-Poaching Operations and Law Enforcement UWA Anti-Poaching Efforts (2021-2024)

Uganda Wildlife Authority (UWA) maintains continuous ranger patrols supported by modern digital monitoring tools to strengthen intelligence-led law enforcement and wildlife protection. Over recent years, UWA has been transitioning from the Spatial Monitoring and Reporting Tool (SMART) system to EarthRanger, a more advanced platform that provides near real-time visualisation of patrol movements, Wildlife locations, and threats, particularly for GPS-collared species. This transition enhances rapid decision-making, improves coordination between field teams, and allows managers to respond more quickly to poaching incidents and emerging risks across Protected Areas.

SMART has been widely used to systematically record patrol effort, illegal activities, snares, and wildlife sightings, making it a strong tool for structured data collection, trend analysis, and long-term planning, although it largely relies on post-patrol data upload and is less effective for real-time response but more effective in data analysis. In contrast, EarthRanger offers real-time situational awareness and live alerts from multiple data streams, greatly improving rapid response and command-and-control functions, but it requires higher technical capacity, stable connectivity, and greater operational costs to maintain effectively.

The deployment and continued enhancement of digital wildlife monitoring systems, including the use of drones for surveillance of remote and difficult-to-access areas, has significantly strengthened wildlife protection and law enforcement efforts. Drone technology improves patrol efficiency by enabling rapid coverage of large landscapes, real-time detection of illegal activities, and timely response to threats, while reducing operational risks and costs associated with ground patrols alone. These systems, supported through collaboration with conservation partners, complement ranger-based monitoring and reinforce UWA's commitment to technology-enabled, adaptive, and effective Wildlife management across Uganda's Protected Areas.



## 5.2 Human-Wildlife Conflict Mitigation and Community-Based Responses

Human-Wildlife Conflict (HWC) remains one of the most persistent pressures on wildlife conservation and rural livelihoods in Uganda. To address this challenge, the Uganda Wildlife Authority (UWA) has implemented an integrated package of prevention, response, and community-based interventions aimed at reducing conflict incidence, safeguarding livelihoods, and promoting coexistence between people and wildlife.

### Electric Fencing as a Primary Conflict Deterrent

Electric fencing has been strategically deployed to protect highly vulnerable agricultural zones adjacent to Protected Areas, creating buffer deterrence zones that significantly reduce wildlife incursions into farmlands. As of December 2025, a total of 221.76 km of electric fence had been installed across key Conservation Areas, Queen Elizabeth Conservation Area (126.76 km), Murchison Falls Conservation Area (91 km), and Kidepo Valley Conservation Area (4 km). These fences primarily target elephant movement corridors and high-conflict hotspots. *Figure 96* shows an electric fence as an HWC measure.



Figure 96. *Electric fencing restricts mobility and hence population viability.*

Expansion of fencing remains a priority. By the end of FY 2025/26, Murchison Falls Conservation Area aims to extend fencing by 10 km (to reach 101 km), while Kidepo Valley Conservation Area targets 96 km of new fencing to achieve 100 km of coverage. To improve durability and cost efficiency, UWA has transitioned from wooden poles to composite poles, which are termite-resistant, longer-lasting, require minimal maintenance, reduce pressure on forest resources, and contribute to environmental sustainability through plastic recycling.

Operational evidence indicates that the combined application of electric fencing with complementary measures contributed to an estimated 11% reduction in reported human-Wildlife conflict incidents between FY 2021/22 and FY 2022/23 in Queen Elizabeth and Murchison Falls National Parks.

### Physical Barriers and Landscape-Level Deterrents

Electric fencing has been reinforced with additional physical deterrents tailored to species-specific conflict risks. By December 2025, UWA had constructed approximately 291 km of trenches across selected high-conflict landscapes to deter elephants. Elephant boardwalk barriers were installed in Kibale and Semuliki National Parks, while hippo exclusion fences and crocodile capture cages were established in the Queen Elizabeth Conservation Area to reduce water-related conflict.

In mountainous ecosystems, UWA continues to maintain a 16 km stone wall in Mgahinga Gorilla National Park to prevent crop raiding by gorillas. In addition, 10,919 beehives have been established along protected area boundaries to act as deterrent buffers, while simultaneously providing alternative livelihood benefits to surrounding communities.





## Community-Based Conflict Mitigation and Rapid Response

Community participation has been central to sustaining conflict mitigation gains. Initiatives such as the Human-Wildlife Guardians Organization (HUGO) in the Bwindi-Kibale landscape, and Community Wildlife Scout programme in Murchison Falls, Kidepo Valley, Lake Mburo, and Queen Elizabeth Conservation Areas, have strengthened early warning, rapid response, and community stewardship.

As of December 2025, 1,809 community Wildlife scouts had been recruited, trained, and equipped to support incident response, monitoring, and conservation awareness. Programme evaluations and operational feedback indicate that approximately 88% of participating households reported reduced crop raiding between 2022 and 2024, highlighting the effectiveness of locally driven solutions.

## Problem Animal Control and Translocation

UWA has continued to implement targeted problem animal capture and relocation from high-conflict zones to suitable natural habitats (*Figure 97*). The most frequently reported and managed problem animals include snakes and crocodiles, particularly in densely populated areas and near water bodies. These interventions reduce immediate risks to human safety while ensuring animal welfare and minimizing retaliatory killings.



Figure 97. *A problem crocodile captured for translocation away from the community. (Photo: UWA)*

## Compensation and Conservation Education

UWA continues to operationalize the statutory human-Wildlife conflict compensation scheme. Since its initiation in 2022 till 31<sup>st</sup> December 2025, a total of 1,014 household have been compensated, amounting to UGX 2,900,309,254. While compensation does not replace losses fully, it plays a critical role in easing tensions and maintaining community support for conservation.





These measures are complemented by sustained Conservation Education and community sensitization programme, which aim to improve knowledge, shape positive attitudes, and promote practices that support wildlife conservation and sustainable ecosystem use.

Programme evaluations and operational feedback indicate that approximately 88% of participating households reported a reduction in crop-raiding incidents between 2022 and 2024, underscoring the effectiveness of integrated, community-driven approaches in promoting coexistence, reducing conflict, and strengthening long-term stewardship of wildlife resources.

### 5.3 Invasive Alien and Problematic Native Plant Species Management

Invasive Alien and Problematic Native Plant Species remain one of the most significant ecological pressures affecting Uganda's Wildlife Protected Areas, altering habitat structure, reducing forage availability, and undermining ecosystem resilience. During FY 2024/2025, UWA, working with conservation partners and local communities, cleared approximately 5,666 hectares (about 56.7 km<sup>2</sup>) of land invaded by invasive alien and problematic native plant species across 12 Protected Areas. This represents a substantial management effort aimed at restoring degraded habitats, improving wildlife carrying capacity, and safeguarding tourism and wildlife values.

Management efforts during the reporting period focused on a mix of Invasive Alien and Problematic Native Plant Species. The most intensively addressed Problematic Native Plant Species included *Dichrostachys cinerea*, *Acacia hockii*, *Acacia nilotica*, *Harrisonia abyssinica*, and *Borassus aethiopum*, which have driven woody encroachment in savannah ecosystems such as Queen Elizabeth, Lake Mburo, Kidepo Valley, and Murchison Falls Conservation Areas. Key Invasive Alien Plant Species managed included *Lantana camara*, *Parthenium hysterophorus*, *Chromolaena odorata*, *Senna spectabilis*, *Opuntia* spp., *Acacia mearnsii*, *Eucalyptus* spp., and *Camellia sinensis*, affecting both savannah and forest ecosystems. These species were prioritized due to their rapid spread, high ecological impact, and strong links to declining forage, altered wildlife movements, and increased human-wildlife conflict.

While progress has been made, the scale of invasion across landscapes remains far greater than annual clearance capacity. Effective long-term management therefore requires improved understanding of spatial coverage, infestation density, regeneration rates, and landscape-level patterns of invasive species. Strengthening systematic mapping, monitoring, and post-clearance assessment will be critical for designing targeted, cost-effective maintenance interventions, prioritizing high-value conservation zones, and preventing reinvasion. Invasive species management is thus a continuous ecological process and a core component of maintaining the integrity and resilience of Uganda's wildlife ecosystems.





## Chapter SIX

# 6. Monitoring and Data Systems: Current Approaches and Opportunities

Uganda Wildlife Authority (UWA) employs a combination of traditional field-based surveys and modern digital technologies to monitor wildlife populations, threats, and habitat conditions across Protected Areas and selected landscapes outside Protected Areas. These systems provide the evidence base for conservation planning, law enforcement, and reporting under national and international frameworks. However, changing habitat conditions, particularly increasing woody encroachment and invasive plant species, are reducing the effectiveness of some conventional monitoring approaches, underscoring the need for adaptive, integrated monitoring strategies. The following are some of the existing monitoring tools and approaches utilised by UWA to generate the current data that was fed into this state of Wildlife resources report

### 6.1 Aerial Wildlife Surveys (Censuses)

Aerial Wildlife surveys are still the key monitoring mechanism used by the Uganda Wildlife Authority to track populations of medium and large mammals in the country's savannah National Parks. The surveys take place at regular intervals over vast terrain such as Murchison Falls, Queen Elizabeth, Kidepo Valley, Lake Mburo, and Pian Upe and are supported by fixed-wing aircraft. With this approach, large land areas are covered in a short time and population estimates for broad and widely observable species, such as elephants, buffaloes, giraffes, zebras, and Uganda kob are recorded. Repeated aerial surveys have given consistent data through the years to follow trends of populations, evaluate conservation impacts and provide useful insights to make decisions on the landscape scale. The importance of aerial surveys for assessing general spatial patterns of wildlife distribution within open savannah ecosystems is their efficiency. Particularly useful in regions with poor access to the ground, and regions where species are distributed in low and moderate densities over large areas. Through adoption of common transect techniques and correction factors, aerial surveys enable UWA to keep a national image of the local status and trends in key herbivore populations that support both ecosystem functioning and wildlife tourism.

But aerial surveys are less effective based on the structure of vegetation in many savannah parks. Spread of invasive, forests and woody plant species, bush encroachment and densification of tree cover prevent visibility from the air and allow the animals to remain hidden in thickets. Because of this, aerial counts usually underestimate real population sizes, especially for species with dense cover or that exist in heterogeneous habitats. These limitations underscore the need to supplement monitoring methods including ground-based counts, camera trapping and habitat mapping as savannah ecosystems evolve and to ensure the population remains more accurate.

### 6.2 Ground Counts and Transect Surveys

Ground-based survey methods remain a crucial component of wildlife monitoring in Uganda and are widely employed by the Uganda Wildlife Authority to complement aerial surveys, particularly in habitats where aerial counts are less effective. These methods include foot patrols and vehicle-based lines transect, as well as point counts, and are applied to estimate wildlife abundance, distribution, and habitat condition. They allow observers to record animals directly, identify species with greater accuracy, and collect additional ecological information such as age structure, group composition, signs of breeding, and habitat use. Ground surveys are especially valuable in forested landscapes, riverine systems, and mixed habitats where visibility from the air is limited.





One of the main strengths of ground transects is their flexibility and relatively lower cost compared to aerial surveys. They are well-suited for monitoring medium-sized mammals, primates, birds, and other taxa that are difficult to detect from aircraft. In forest ecosystems such as Kibale, Budongo, Bwindi, and parts of Queen Elizabeth and Murchison Falls, ground-based surveys provide the most reliable means of tracking wildlife presence and trends. They also allow for close integration with habitat assessments, making it possible to link wildlife observations with vegetation structure, human disturbance, and signs of illegal activity.

However, ground transect surveys have important limitations that must be acknowledged. They are time-consuming and cover relatively small areas compared to aerial surveys, making them less suitable for large, open landscapes when used alone. Increasing invasion of savanna by dense shrubs and invasive plant species further reduces visibility, leading to under-detection of animals. In such conditions, survey teams also face heightened safety risks, as dangerous wildlife may remain concealed in thick vegetation until encountered at close range. As a result, ground transects are most effective when carefully planned, applied in suitable habitats, and combined with other monitoring approaches, such as aerial surveys, camera trapping, and ranger patrol data, to produce more robust and reliable population estimates.

### 6.3 Camera Traps and Spatial Capture-Recapture (SECR) Models

Camera traps that integrate with the Spatial Capture-Recapture (SECR) model have risen to the highest utility as a tool for wildlife surveillance for natural or otherwise hard-to-observe species in Uganda, in addition to the conventional survey sampling (A camera Trap in one of the Protected Areas *Figure 98*). It is a system of cameras located across a wild area and kept permanently stationary for a large period of time while animals traverse their natural ranges. Combined with SECR-based approaches, such data yield an accurate estimation of the species population density, distribution, and the pattern of activity, particularly for carnivores and other elusive species.



Figure 98. *Camera trap (Photo: Chester Zoo)*

With cryptic, nocturnal, and forest-dwelling species such as leopards, hyenas, serval cats, and small carnivores, under-recognised by aerial or ground-based surveys, the method works (especially well). Camera trapping also minimizes observer bias and a safety risk for field teams, as monitoring does not have to occur in places where dangerous wildlife is abundant and/or dense vegetation is present, and human presence is not always a factor.

This technique also produces detailed ecology information other than population estimates, such as behaviour, habitat use, and temporal activity patterns, and can be useful for management planning and for assessing conservation measures.

However, the implementation of camera trap monitoring involves a high initial capital investment in equipment, careful field design, and an extended rollout time in order to have a statistically significant impact. Data processing and analysis take a lot of time and require specialised competency and some technical expertise and such can restrict quick implementation on a national scale. Although these factors represent significant issues, camera traps and SECR methodologies are generally suitable for forested, thicket-invaded, and rugged landscapes due to the limited





visibility and inefficient survey approach. Uganda's savannah and forest ecosystems continue to experience vegetation change and woody encroachment yet this approach provides a critical complementary method for accurately monitoring Wildlife populations that would otherwise remain poorly understood.

## 6.4 Ranger Patrol-based Monitoring

Ranger Patrol-based monitoring is a critical aspect of wildlife management and protection in Uganda's Protected Areas. Digital tools, including the Management Information System (MIST) and the Spatial Monitoring and Reporting Tool (SMART), allow ranger teams to log patrol routes, animal observations, signs of illegal activity, snares, and other threats they encounter in the course of their daily law enforcement activities. It integrates conservation monitoring directly within protection activity and thus, information relating to threats and pressures to Wildlife species is collected and used throughout the landscape. Accordingly, ranger-based monitoring yields critical, real-time information about events within Protected Areas (*Figure 99* shows two Rangers during patrol in LMNP).



Figure 99. *Ranger patrol-based monitoring.*  
(Photo: Juliet Mirembe)

One of the strengths of Ranger Patrol-based monitoring is its convenience and economy. Because all data is captured during regular patrols, the system can be maintained over lengthy durations and scaled to all Protected Areas without the cost of specialised surveys. Data from this process can help with adaptive management by determining poaching hotspots, trends in illegal activities, and areas that need additional patrol effort. The SMART and MIST datasets have been instrumental in establishing intelligence-led law enforcement, facilitating the deployment of ranger teams, and creating accountability and planning in Uganda Wildlife Authority over the years.

However, Ranger Patrol-based monitoring has its limitations that should be recognised in terms of data analysis. Wildlife sightings recorded at patrols are generally opportunistic rather than systematic and are thus not sufficient to estimate numbers or trends for the general population of species. Patrol coverage is also shaped by access issues, security concerns, and management priorities in general, creating a spatial bias in the data. To maintain data quality, training for rangers is necessary, and supervision should be continued during every patrolling period. Ranger patrol-based monitoring is most effective in practice when it is used to assess threats, illegal activities, and patrol effectiveness, and as part of a structured mix of survey methods such as aerial counts, ground transects, and camera trap studies to provide a full picture of wildlife status and trends.

## 6.5 EarthRanger and Collar-based monitoring

EarthRanger and collar-based monitoring are proving valuable in keeping pace with life within Uganda's Protected Areas and providing real-time wildlife management options. EarthRanger uses GPS collars placed on animals selected for high-priority species (e.g., elephants and lions: *Figure 100* shows a collared Lioness in QENP) and data on the movement of the animal as part of monitoring, which can be connected with patrol, alerts, and spatial analysis from ranger patrols. This system helps wildlife managers 'see' animal movements over a range of landscapes: they can identify deviations, and react rapidly to issues like poaching or human-wildlife conflict.





The platform has bolstered intelligence-led law enforcement and better coordination between field teams and park management. EarthRanger has its power in its ability to empower fast decision-making.



Figure 100. *Collar-based monitoring.* (Photo: Kajura Lawrence)

Real-time tracking gives rangers early warning when an animal is getting closer to the limits of a community, roads, or hotspots of known conflict, so they can intervene before an incident becomes worse. The system further enhances protection of at-risk individuals by directing patrol coverage and directing enforcement efforts to the most urgent needs.

Additionally, collar information offers useful insights into seasonal movement patterns, habitat utilisation, and corridor connectivity, and can contribute to both landscape-level planning and conflict prevention strategies. However, the EarthRanger and collar-based monitoring have their weaknesses. The approach is also costly, with large sums of collars and data transfer used, high maintenance costs of the systems, and it is confined to small numbers of collared animals (individuals) instead of entire populations. Accordingly, this technique cannot be applied in population estimates or in all age and sex classes. Its ultimate utility, then, resides in supplementing other methods for monitoring, for the management of high-risk species, real-time decision making, and for enforcement and conflict reduction, rather than replacing the conventional methods of surveys.





## Chapter SEVEN

# 7. Monitoring Gaps and Emerging Challenges Affecting Wildlife Assessment

## Invasive Alien and Problematic Native Plant Species

In Uganda's savannah Protected Areas, increasing invasion by invasive alien and problematic native plant species is becoming an increasingly troublesome issue for wildlife monitoring. Dense thickets reduce visibility and animal detectability and can compromise the precision of both aerial and ground surveys, which are usually conducted in open landscapes. As such, population estimates for large and medium-sized mammals may begin to underestimate the true number, particularly for species that would prefer cover in shrub-dominated habitats. The transformation of vegetation makes it even harder to analyse patterns over time, as detectability changes could be interpreted as real population declines or fluctuations. Woody encroachment not only presents methodological constraints but also raises safety and operational concerns *in-situ* for ground surveying project teams as a result of the extensive vegetation layer, with increased chances of encountering harmful wildlife on pathways and restricting movements along transects. These challenges indicate that conventional monitoring processes are increasingly failing to adequately account for rapidly changing habitat conditions. In order to bridge this gap, a combination of adaptive monitoring methods, increased camera traps, remote sensing, vegetation tracking, and targeted surveillance monitoring of invasive plant distribution would be needed to ensure that wildlife monitoring is reliable and fit for purpose and is safe in rapidly changing ecological settings.

### 7.1 Limited Systematic Monitoring of Several Taxa: The Majority 'Neglected Taxa'

Limited systematic monitoring of the 'neglected' taxa, such as reptiles, amphibians, bats, and invertebrates, remains a significant gap in Uganda's wildlife monitoring framework. These groups are often under-represented in routine surveys because they are less conspicuous, require specialised methods, and are not the primary focus of traditional census approaches that prioritise large and medium-sized mammals. National data on their population status, distribution, and trends are sparse, fragmented, or outdated, limiting the ability to detect declines, local extinctions, or emerging threats in a timely manner. This gap is of growing concern because smaller taxa play critical ecological roles as pollinators, seed dispersers, pest regulators, and indicators of ecosystem health and environmental change. Many are highly sensitive to habitat degradation, pollution, vegetation change, and climate variability, meaning their declines can signal broader ecological stress long before impacts become visible in larger wildlife populations. Addressing this challenge will require targeted investment in specialised survey methods, long-term monitoring programmes, and technical capacity building, as well as stronger integration of research institutions and citizen science initiatives into national wildlife monitoring efforts.

### 7.2 Limited Data on Wild Plant Species

One fundamental limitation of Uganda's wildlife surveillance system is the lack of adequate and fragmented data on wild plant species. Despite significant efforts to monitor animal populations, particularly in relation to large mammals and particular bird species, comprehensive coverage of vegetation composition, structure, distribution, and trends is sparse. Current plant data are generally site-specific, project-based, or outdated, and there are few inventories that are coordinated and maintained nationally to encompass alterations in flora across different ecosystems and landscapes. Such a gap limits our ability to adequately understand habitat





quality, ecosystem health, and drivers of wildlife population change. Wild plants form the foundation of all terrestrial ecosystems, providing forage, shelter, and the ecological processes that support wildlife. This lack of information about plant communities (e.g., invasive species, woody encroachment, and changes in grassland and wetland vegetation) makes planning for conservation, habitat restoration, and climate adaptation strategies much less reliable. Bridging this gap will involve enhanced botanical surveys, the incorporation of vegetation monitoring into routine wildlife assessments, remote sensing and field validation, and closer linkage with forestry, research institutions, and local communities to develop comprehensive and current plant wildlife data for Uganda.

### 7.3 High Cost of Technology and Technical Capacity for Wildlife Monitoring

Extensive technological and technical needs still restrict the further development and long-term deployment of state-of-the-art wildlife monitoring tools like camera traps, spatial capture-recapture models, satellite collars, drones, and real-time digital platforms (*Figure 101: UWA staff monitoring animals using a drone in QENP*). These technologies demand substantial upfront investments, constant maintenance, stable power and data connections, as well as capable personnel responsible for installation, data management, and analysis.



This disparity in application, in particular between Protected Areas and taxa, means that their application is patchy and monitoring activities are very often focused on donor-supported landscapes or priority species. Such a constraint reduces the capacity to produce detailed, long-term, nationally representative data about wildlife, particularly for cryptic, nocturnal, and forest-dependent species, as well as the need for ongoing investment and training to update wildlife monitoring systems in Uganda.

Figure 101. *Aerial wildlife survey.*  
(Photo: Tumuhimbise Benjamin)

### 7.4 Fragmented Wildlife Data

In Uganda, fragmented data management across institutions poses a major constraint to effective wildlife monitoring and long-term trend analysis. Wildlife data are currently generated and stored by multiple agencies, research institutions, and conservation partners using different standards, formats, and platforms. This fragmentation limits data sharing, integration, and synthesis across landscapes and taxa, making it difficult to produce comprehensive national assessments, detect long-term trends, or link wildlife status to drivers and impacts. Addressing this challenge will require harmonized monitoring frameworks, interoperable databases, and strengthened institutional coordination to support evidence-based planning, reporting, and adaptive wildlife management.





## 7.5 Technology Gaps in Wildlife Monitoring

While Uganda has successfully pioneered the use of digital solutions for wildlife monitoring, the coverage, integration, and consistency of these technologies have not been optimal. Core technologies like SMART and EarthRanger are already present in selected Protected Areas, but have not been rolled out uniformly to all conservation areas and wildlife zones. Accordingly, the implementation of real-time monitoring, threat identification and data-driven management activities among national Protected Area Sites is inconsistent. Emerging technologies, which may involve the use of drones, high-resolution satellite imagery, artificial intelligence-assisted image analysis, and automated data processing, are limited by high costs of technology integration, low technological expertise, and infrastructure challenges. Also, telemetry and GPS collaring of elephants, lions, and giraffes are still restricted in their scale and geography, which hinders comprehensive knowledge of the movements of species, use of habitats, and human-wildlife conflict at the landscape scale. Furthermore, wildlife health monitoring systems are not yet fully integrated with the national livestock and human health surveillance systems. Lack of an integrated One Health early warning system hinders the ability of the country to detect, forecast, and respond adequately to emerging wildlife diseases and zoonotic hazards. Filling these technology gaps will be important for beefing up wildlife assessment, adaptive management, and enhancing Uganda's ability to respond effectively to escalating ecological and conservation threats.

## 7.6 Methodological Divergences in Wildlife Monitoring Methods

One of the main issues in evaluating wildlife in Uganda is the inconsistent application of survey methods used to make estimates for the same populations of wildlife. In some areas, aerial surveys are used at one point in time, while line-transect-based surveys or other approaches are applied in subsequent assessments. Since these methods differ in the likelihood of detection, spatial coverage, and species visibility, interchanging them allows for population estimates that are not directly comparable. Such variation may result in apparent differences in observed values and therefore make trend interpretations more problematic and report population status increasingly difficult. Variability in the timing and frequency of the surveys is also an obstacle to producing standardised and valid state-of-wildlife data. Census intervals are variable, ranging from a few years to over a decade in some species and landscapes, complicating evaluation of rates of change and, therefore, tracking patterns of trends across species or management measures and linking reporting across taxa. Overcoming these challenges will depend on increased methodological homogenisation, unambiguous guidance on method selection by habitat and species, and the establishment of systematic and consistent surveys in order to enhance comparability and credibility of wildlife status and trend reporting over time.





*(Photo: Ronald Amu)*



*(Photo: Ankampwera Catherine)*





## Chapter EIGHT

# 8. Enhancing Wildlife Monitoring, Management, Governance and Financing in Uganda

## Unified National Wildlife Monitoring and Data Systems

UWA is in the process of developing a National Wildlife and Wildlife Information System as it enhances wildlife monitoring, management, governance, and financing. This integrated platform will provide a central repository for wildlife data to be collected, stored and analysed by many of the key institutions including the Ministry of Tourism Wildlife and Antiquities (MTWA), Uganda Wildlife Authority (UWA), National Forestry Authority (NFA), Ministry of Health (MoH), Ministry of Agriculture Animal Industry and Fisheries (MAAIF), National Environment Management Authority (NEMA), and major research partners.

Integrating data from different sources and adopting interoperable standards and formats together will reduce data duplication, facilitate long-term tracking of wildlife and habitat trends and underpin evidence-based decision-making around species conservation, land use planning, and sustainable development. A key component of this initiative's success and continuance is ensuring that clear data governance policies are in place, defining ownership, control, access rights, and data quality standards. Such governance frameworks will facilitate national ownership, establish data security, and provide stakeholders confidence in the system.

### 8.1 Improved Census Coverage and Taxonomic Representation

Uganda Wildlife Authority (UWA) is determined to institutionalise uniform and repeated national wildlife surveys conducted every three years on the basis of standardised and regular monitoring. The focus of these surveys will be on prominent flagship species such as elephants, lions, giraffes, antelopes, and great apes so that we can provide consistent comparable national wildlife trend data. To guarantee accuracy and reliability, all survey methods are to be consistent both in time and land areas so that this may reduce the possibility of misleading the estimates or causing population differences leading to any misguidance in the decision-making process in conservation.

Additionally, UWA intends to extend survey efforts beyond large mammals to include under-identified taxa, such as, plants, fungi, lichens, reptiles, amphibians, bats, invertebrates, and fish. These classes are critical players for ecosystem health but have been a neglected group for monitoring activities. Expanding the taxonomic coverage further builds an understanding of ecosystem health, enabling UWA and partners to predict and bolster the resilience of Uganda's ecosystems across its varied habitats. By implementing these enhanced methodologically rigorous surveys, UWA and the Government of Uganda reaffirm their commitment towards evidence-based wildlife management and supporting the sustainable conservation of our nation's rich biodiversity.



## 8.2 Scaling Up Technology For Modern Wildlife Monitoring

UWA intends to scale up technology for effective wildlife monitoring across Uganda's Protected Areas and wildlife landscapes. Implementation of SMART and EarthRanger systems across all major conservation areas will bolster real-time monitoring, law enforcement planning and human-wildlife conflict response. UWA plans to increase the usage of AI-enabled camera trap analysis, drones, and advanced satellite imagery collection for detecting wildlife, habitat change, spread of invasive alien and problematic native plant species, encroachment and illegal activities. Increasing targeting of GPS and satellite collaring of wide-ranging and conflict-prone species will provide better insights into movement patterns and support early warning mechanisms and landscape planning.

## 8.3 Scaling Intergrated One Health Technology for Comprehensive Wildlife Disease Surviellance

Uganda Wildlife Authority is part of the National One Health Task Force developing a national wildlife health surveillance system wholly integrated with existing livestock and human health reporting frameworks. Integration is crucial for early detection of emerging zoonotic diseases and antimicrobial resistance risks to protect public health, animal health, and ecosystem integrity. Enhancing sub-national laboratory capacity in the field of wildlife diagnostics will enable timely and accurate identification of health threats nationwide. Additionally, in cooperation with wildlife authorities, veterinary services, and public health organizations, we will ensure unified and proactive surveillance systems. Aligned with the One Health model, this framework acknowledges the interlinkages of humans, animals, and their common habitat and reduces reliance on sporadic project-based responses, maximizing preparedness for disease outbreaks. Uganda's ability to monitor wildlife health holistically and adapt effectively to public health and conservation challenges can be improved through multisectoral partnerships, technological innovations, and local diagnostic capabilities.

## 8.4 Addressing Capacity Constraints and Technical Skills Gaps

Uganda Wildlife Authority (UWA) knows that sustainable wildlife monitoring hinges on investing in and strengthening human capacity. To alleviate ongoing skills shortages and capacity limitations, UWA will strive for ongoing development and retention of key professionals (wildlife biometricians, ecologists, GIS specialists, epidemiologists, data analysts) across UWA. UWA also will prioritise continued training in state-of-the-art techniques, emerging technologies, and advanced spatial analysis to enhance the quality, reliability, and interpretation of wildlife data.

Additionally, UWA will concentrate on recruiting and filling staffing gaps, particularly in large, remote Protected Areas, to provide monitoring and law enforcement coverage. This will empower teams by expanding knowledge across various disciplines, from science to technology and policy that can facilitate collecting and interpreting information, driving decisions with consequences on conservation. Through these investments in human resources and skills development, UWA aims to sustain the robust wildlife monitoring systems that facilitate Uganda's biodiversity conservation goals and adequately respond to emerging environmental challenges.





## 8.5 Strengthening Community-Based Monitoring Through Citizen Science Participation

Based on the principles of citizen science, community monitoring ought to be promoted as a crucial component of any national wildlife monitoring programme. UWA intends to substantially increase spatial coverage beyond the Protected Areas by training community wildlife scouts and local monitors with techniques, in order to acquire simple and reliable observation techniques for viewing species sightings, habitat changes, and human-wildlife conflicts. Use of mobile reporting tools and platforms provides an expedited and low-cost means for submitting data from remote areas. Citizen-generated data, once validated and incorporated into national databases, enhances local stewardship and improves responsiveness to emerging conservation challenges.

## 8.6 Enhancing Wildlife Management: Stakeholder Engagement

Uganda's wildlife sector is extremely huge and diverse and it involves a wide array of stakeholders, each bringing unique perspectives and valuable insights. The management of wildlife needs to be actively participated in and coordinated through continuous dialogue related to wildlife resources. This enables us to tap into the essential input that supports the ongoing refinement of wildlife management practices in Uganda by creating transparent channels of communication and encouraging open discussion in an open environment. Taking this collaborative stance enhances the ability to make more informed and inclusive decisions while also encouraging sustainability in these areas for both wildlife populations and local communities. Stakeholders have diverse and unique conservation opinions and tapping into them will provide a comprehensive understanding of the challenges and opportunities facing wildlife management in the region, ultimately contributing to continuous improvement in the management of Wildlife in the country.

## 8.7 Enhancing Governance and Institutional Coordination

Better alignment in the oversight of wildlife and land-use authorities is essential for effective wildlife monitoring. Establishing clear role definitions and standardised monitoring frameworks and formal collaboration mechanisms among MDAs the local governments and transboundary partners, will reduce redundancies and discrepancies. Furthermore, this approach will enhance coordination across borders and landscapes to support the effective tracking of migratory species and shared ecosystems.

## 8.8 Sustainable Financing for Wildlife Monitoring

Reliable funding is crucial for ongoing wildlife monitoring which cannot rely solely on temporary donor contributions. UWA intends to broaden its financial resources by lobbying for an increase in government budget allocations, establishing conservation trust funds, implementing tourism levies, facilitating payments for ecosystem services, pursuing carbon finance opportunities, and utilising wildlife offsets. Consistent and predictable funding will enable monitoring programmes to operate continuously, safeguard investments in technology and capacity building, and preserve national wildlife data.





*(Photo: Phillip Chaon)*





# Chapter NINE

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## 9. Conclusion

Uganda's wildlife conservation has undergone an obvious process of recovery and resilience since the early 1990s, with the country's decline following a period of prolonged political instability, high poaching, and institutional breakdown. The creation of the Uganda Wildlife Authority was a significant turning point. The move allowed for organised management, better law enforcement, community engagement, and a gradual rebound of wildlife population levels in a number of Protected Areas. The positive trends visible in some key species and landscapes now are the result of continued national investment, better governance, and long-term conservation efforts.

However, the report also highlights that wildlife recovery is not uniform or guaranteed. Increasing pressures from human population, land use change, fragmentation of habitats; climate variability, invasive plant species, and persistent illegal resource use continue to limit recovery of some species and landscapes. Wild animals and wildlife species, such as elephants, large carnivores, and some wetland-dependent species, continue to be highly sensitive to habitat alteration, and human-wildlife conflict. These challenges reinforce the importance of conservation strategies that go well beyond the protective perimeter and the conservation landscape and address connectivity at the landscape level, and coexistence with communities.

Substantial knowledge gaps remain, in particular for the majority 'neglected' animal taxa, wild crop relatives and other flora, fungi and wildlife populations outside of Protected Areas, where monitoring coverage is still limited. Limited technological, methodological, and budgetary means are also constraints on the frequency, consistency, and integration of wildlife data. Closing these gaps is important in order to provide an accurate national picture, both in terms of wildlife status and trends, better early warning systems, and adaptive management. The wildlife future of Uganda will therefore hinge on a more comprehensive, resilient, and inclusive conservation model moving forward. UWA retains a clear plan for enhancing surveillance systems, developing taxonomic and geographic coverage, rehabilitating degraded habitats, restraining invasive alien and problematic native plant species, and integrating wildlife health and One Health principles.

Equally important is the continued support of communities, local governments, development partners, the private sector and institutions (academic, local and regional) in protecting wildlife as a national asset shared by all. Uganda's wildlife resources have demonstrated remarkable recovery since the early 1990s, but continuing this to extend and sustain with development efforts must become collective action across sectors and landscapes. As long as there are partnerships with strong, evidence-based decision-making, wildlife conservation can act as a building block for national development and future development, improve livelihoods in local communities, maintain ecological health, and promote long-term equity for all.



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## APPENDIX A: THREATENED ENDEMIC AND NEAR ENDEMIC PLANT TAXA OF UGANDA

Species	Common Name	Conservation Status	Distribution	Threats	Conservation Actions	Population Trends
<i>Abutilon eggelingii</i> Verdc	Eggeling's Indian Mallow	Globally Endangered (EN), Near Endemic	Mt Kadam	Logging and wood harvesting, mining and quarrying, cropland expansion, livestock grazing, unregulated harvesting of Khat ( <i>Catha edulis</i> ) thus forest clearance	Research (population size and trends), genome resource banking, site/area protection, ex-situ management	Unknown
<i>Achyrospermum axillare</i> E.A.Bruce	Forest Basil	Globally (VU), Near Endemic	Budongo CFR, Entebbe-Kampala area, Kijude, Mawokota	Cultivation, logging and wood harvesting, residential and commercial development e.g. industrial park at Namanve	Research (population size and trends), ex-situ management	Unknown
<i>Aeglopsis eggelingii</i> M. Taylor	Eggeling's Aeglopsis	Globally Vulnerable (VU), Near Endemic	Budongo CFR, Bugoma CFR, Kagombe CFR, Kasyoha-Kitomi CFR, Kibale NP, Maramagambo CFR, Mitala Maria, Siba River, Buhweju, Zoka CFR	Illegal tree felling in Budongo and encroachment at Mitala Maria Forest.	Research (population size and trends), area protection,	Unknown

<i>Aerangis jacksonii</i> J.Stewart	Jackson's Aerangis Orchid	Globally Endangered (EN), Endemic	Kibale NP, Amabeere Caves, Fort Portal, Mpanga Forest, Toro-Semliki Wildlife Reserve	Habitat clearance due to cultivation and urbanization (close to Toro town) outside Protected Area.	Habitat/area protection, research (population size and trends).	Unknown
<i>Aframomum spiroligulatum</i> Lock & A.D.Poulsen	Wild Cardamom	Globally Endangered (EN), Near Endemic	Kasyoha-Kitomi CFR	Illegal logging, and large agricultural plantations on the edge of the area which could encroach into the reserve	Manage the Protected area to prevent illegal logging and agricultural encroachment, research (population and habitat trends, explore other occurrence localities)	Unknown
<i>Aframomum uniflorum</i> Lock & A.D.Poulsen	Wild Ginger	Globally Endangered (EN), Near Endemic	Budongo CFR	Bushmeat hunting and illegal logging in Budongo CFR,	Continued management of the Protected Areas and collection of plants and seed for ex situ conservation, better distributional data and information on population size and trends	Unknown

<i>Afrothismia ugandensis</i> Cheek	Uganda Afrothismia	Globally Critically Endangered (CR), Endemic	Budongo CFR	Limited illegal pitsawing of trees for fuelwood, charcoal and timber within Budongo CFR	Resource and habitat protection, research (population size and trends), conservation planning (species action/recovery plan)	Unknown
<i>Agelanthus entebbensis</i> (Sprague) Polhill & Wiens	Entebbe Mistletoe	Globally Endangered (EN), Near Endemic	Jinja and Entebbe	Residential and commercial development, housing and urban development, replacement of indigenous trees with exotic ones which are not suitable hosts	Research (population size and trends, life history and ecology)	Unknown
<i>Alchemilla elgonensis</i> Mildbr.	Elgon Lady's Mantle	Globally Vulnerable (VU), Near Endemic	Mt Elgon	Frequent fires, droughts, cattle grazing, firewood collection, charcoal production, extraction of building poles, wild fruits, herbal medicine and clearance for agricultural activity	Research (population size, and trends), ex situ conservation, habitat protection	Unknown

<i>Allanblackia kimbiliensis</i> Spirlet	Allanblackia/ Tallow Tree	Globally Endangered (EN), Nationally Critically Endangered (CR), Near Endemic	Bwindi Impenetrable NP, Ishasha sector	The conversion of forest conversion areas into agricultural land and illegal logging	Habitat protection, ex situ conservation (botanic gardens), genome resource banking, community awareness, research (population size and trends)	Decreasing
<i>Aloe amudatensis</i> Reynolds	Atakar Aloe	Globally Vulnerable (VU), Near Endemic	Amudat, Lodoketemit, Lonyoro, Moroto Mtn foothills, Moroto-Nakapiripirit road	Mining activities, tree cutting for wood and charcoal and soil erosion especially during the rainy season	Habitat protection, Ex situ conservation, research (population size, current threats), community awareness	Decreasing
<i>Aloe butiabana</i> T.C.Cole & T.G.Forrest	Butiaba Aloe	Globally Vulnerable (VU)	Lake Albert Flats including Butiaba, Murchison Falls NP, Kabwoya WR, Toro-Semliki WR, Pakwach to Nebbi	Habitat loss due to farming, oil and gas mining	Research (population size, threats; harvesting, use and livelihoods), ex situ conservation, community awareness	Decreasing
<i>Aloe ikiorum</i> Dioli & G.Powys	Ikior Aloe	Globally Critically Endangered (CR), Endemic	Timu, escarpment overlooking Kenya border, Kaabong District	Clearing of land for agriculture, harvesting of trees for firewood and charcoal, change in fire regimes and intensities	Research to establish whether species range extends to Timu CFR, assess threat levels; Ex situ conservation, site/ habitat protection	Unknown

<i>Aloe mubendiensis</i> Christian	Mubende Aloe	Nationally Endangered (EN), Endemic	Hills between Mubende and Fort Portal, near Kygegwa; near Kibaale	No specific threats have been recorded but mining of the rock would pose a future threat since granite rocks appear to be a source of building material	Research (population size and trends, threat levels), ex situ conservation	Unknown
<i>Aloe secundiflora</i> Engl. var. <i>tweedieae</i> (Christian) Wabuye ( <i>Aloe tweedieae</i> )	Tweedie's Aloe	Globally Vulnerable (VU), Near Endemic	Agoro-Agu CFR, Mt Kadam, Mt Morungole, Mt Moroto, Pian-Upe Game Reserve	Habitat destruction from anthropogenic activities mainly agriculture and heavy grazing and browsing, extraction for medicinal purposes	Research (threats, population size), ex situ conservation, community awareness, habitat protection	Decreasing
<i>Aloe tororoana</i> Reynolds	Tororo Aloe	Globally Vulnerable (VU), Endemic	Tororo Rock, Osukuru (Sukulu) Hills	Phosphate mining, wild fires, urbanization and cultivation. There is some tourist trail development on Tororo Rock	Research (population size and threat levels), ex situ conservation, habitat protection	Unknown
<i>Alsophila camerooniana</i> (Hook.) R.M.Tryon var. <i>ugandensis</i> (Holtum) J.P.Roux [ <i>Cyathea camerooniana</i> Hook. var. <i>ugandensis</i> Holtum]	Uganda Tree Fern	Globally Endangered (EN), Endemic	Ggaba Mujuzi CFR Nakiza Forest, Nansagazi; Bwindi Impenetrable NP	Illegal logging, urbanization	Habitat protection, ex situ conservation (botanic gardens), genome resource banking, community awareness, research (population size and trends)	Unknown

<i>Arabis elgonensis</i> Al-Shehbaz	Elgon Rockcress	Globally Critically Endangered (CR), Endemic	Mt Elgon	Frequent fires, droughts, cattle grazing, firewood collection, and charcoal production	Research (population size, distribution and trends), genome resource banking, ex situ conservation, continued habitat/site management	Unknown
<i>Baccharoides calvoana</i> subsp. <i>adolphi-friderici</i> (Muschl.) Isawumi, El-Ghazaly & B.Nord. [ <i>Vernonia calvoana</i> (Hook.f.) Hook.f. subsp. <i>adolphi-friderici</i> (Muschl) C.Jeffrey]	Vernonia	Globally Vulnerable (VU), Near Endemic	Rwenzori Mtns, Virunga Mtns (Mgahinga Gorilla NP)	Illegal logging, agricultural expansion	Research (population size, distribution and trends), genome resource banking, ex situ conservation, continued habitat/site management	Unknown
<i>Balsamocitrus dawei</i> Stapf	Dawe's Balsam Tree	Globally Endangered (EN), Endemic	Budongo CFR, Bugoma CFR, Kagombe CFR, Karuma WR, Kasyoha-Kitomi CFR, Kibale NP, Mabira CFR, South Maramagambo CFR, Zoka CFR	Illegal tree felling, agricultural expansion	Research (population size and trends), ex situ conservation	Unknown

<i>Bothriocline auriculata</i> (M.Taylor) C.Jeffrey	Bothriocline	Globally Critically Endangered (CR), Endemic	Mt Elgon	Cattle grazing in the upper regions, removal of forest vegetation for casual (shifting) cultivation	Research (population size, trends), conservation planning (species recovery/action plan), ex situ conservation	Decreasing
<i>Brachystephanus coeruleus</i> S.Moore subsp. <i>coeruleus</i>	Blue Brachystephanus	Globally Near Threatened (NT), Near Endemic	Budongo CFR, Bunyaruguru, Mpanga River	Immigrant agricultural activity (Mpanga river)	Site/habitat protection, research (population size, distribution and trends), ex situ conservation	Unknown
<i>Brachystephanus glaberrimus</i> Champl.	Smooth Brachystephanus	Globally Vulnerable (VU), Near Endemic	Bwindi Impenetrable NP, Kibale NP, Rwenzori Mts	Widespread forest habitat loss in parts of its range e.g. the slopes of the Rwenzori mountains through heavy deforestation for cultivation	Habitat and natural process restoration, research (population size, distribution and trends)	Unknown
<i>Brazzeia longipedicellata</i> Verdc.	Brazzeia	Globally Vulnerable (VU), Near Endemic	Bwindi Impenetrable NP, Ishasha Gorge, Budongo Forest Reserve, Albertine Rift	Land clearance for agriculture and logging	Continued site/ area protection, ex situ conservation, research (population size and threats)	Unknown

<i>Carpha angustissima</i> Cherm.	Sedge	Globally Endangered (EN), Near Endemic	Mgahinga Gorilla NP	Agriculture encroachment, illegal activities like harvesting of plant resources (bamboo) for building, extended dry periods and uncontrolled fire	Continued site/ area protection, ex situ conservation, research (population size and threats)	Unknown
<i>Asterochaete emini</i> (K.Schum.) X.F.Zhang [ <i>Carpha eminii</i> (K.Schum.) C.B.Clarke]	Emin's Sedge	Globally Vulnerable (VU), Near Endemic	Rwenzori Mts, Virunga Mts (Mgahinga Gorilla NP)	Illegal human intrusion to gather biological resources	Continued site/ area protection, ex situ conservation, research (population size and threats)	Unknown
<i>Ceropegia campanulata</i> G.Don var. <i>pulchella</i> H.Huber	Lantern Flower	Globally Critically Endangered (CR), Endemic	Leya River watershed, West Madi District, Uganda	Extensive transformation of land into agricultural farms, does not occur in any protected area	Site/habitat protection, research (taxonomy, population size and trends, threats), ex situ conservation, genome resource banking, community awareness	Unknown
<i>Cnestis mildbraedii</i> Gilg	Cnestis	Globally Vulnerable (VU), Near Endemic	Budongo CFR, Kagombe CFR, Mabira CFR, Mpanga Forest, Semuliki NP	Illegal tree felling for timber, poles, and charcoal in most Forest Reserves	Continued protection of habitat, research and monitoring (population size and trends, threats), ex situ conservation	Unkown

<i>Craterostigma niammiamense</i> (Eb. Fisch. & Hepper) Eb.Fisch., Schäferh. & Kai Müll.	Resurrection Plant	Globally Endangered (EN), Near Endemic	Budongo CFR, Kyere, Serere	Logging and silvicultural activities, commercial sugar cane plantation near to the forest, agricultural expansion	Research (population size, distribution trends, life history and ecology), genome resource banking, ex situ conservation, continued habitat/site management	Unknown
<i>Craterostigma sudanicum</i> (Eb. Fisch. & Hepper) Eb.Fisch, Schäferh. & Kai Müll.	Resurrection Plant	Globally Endangered (EN), Near Endemic	Paimol possibly also in Agoro Agu CFR	Increase in agricultural activity and harvesting of wood for fuel and construction, wildfire	Site/habitat protection, ex situ conservation, genome resource banking, research (population size, distribution trends, threats)	Unknown
<i>Crotalaria mesopontica</i> Taub. subsp. <i>glabrescens</i> (R.Wilczek) Milne-Redh.	Rattlepod	Globally Endangered (EN), Near Endemic	Virunga Mts (Mgahinga Gorilla NP)	Agricultural conversion and intense cattle grazing	Habitat protection, research (population size, and threats), ex situ conservation	Decreasing

<i>Cyperus acholiensis</i> <i>Larridon</i> [ <i>Kyllingiella ugandensis</i> R.W.Haines & Lye]	Acholi Sedge	Globally Critically Endangered (CR), Endemic	Agoro Agu CFR, Lotuturu	Agricultural cultivation, felling of trees, and rearing of livestock, unclear reserve boundaries	Site/area management, species management through ex situ conservation and genome resource banking, research (population size, distribution and trends, life history and ecology)	Unknown
<i>Cyperus melanospermus</i> (Nees) Valck.Sur. var. <i>hexalatus</i> (Lye) Lye [ <i>Kyllinga melanosperma</i> Nees var. <i>hexalata</i> Lye]	Sedge	Globally Critically Endangered (CR), Endemic	Near Busoba, Mbale district	Very densely populated area with much agricultural activity.	Research (population size, distribution and trends, life history and ecology, threats)	Unknown
<i>Dasylepis eggelingii</i> J.B.Gillett	Eggeling's Dasylepis	Globally Vulnerable (VU), Near Endemic	Budongo CFR, Bwindi Impenetrable NP, incl. Ishaha, Gorge Kalinzu CFR, Kasyoha Kitomi CFR, Kibale NP, Mabira CFR, Sango Bay,	Mabira, Sango Bay and Budongo Central Forest Reserves (CFRs) are faced with illegal tree felling for timber, firewood, poles and charcoal. The invasive <i>Broussonetia papyrifera</i> occurs in Mabira and Budongo CFRs	Resource and habitat protection, species management (ex situ conservation and genome resource banking), education and awareness, research (population size, distribution and trends; life history and ecology, threats)	Decreasing

<i>Deschampsia angusta</i> Stapf & C.E.Hubb.	Hair Grass / Tussock Grass	Globally Vulnerable (VU), Near Endemic	Rwenzori Mtns	Climate change (habitat shifting and alteration)	Research (population size, distribution and trends, life history and ecology)	Unknown
<i>Dicliptera nilotica</i> C.B.Clarke	Dicliptera	Globally Vulnerable (VU), Near Endemic	Bunyoro, Labongo, Madi, Masindi, Mt Elgon, Mt Kadam	Habitat conversion for small-holder or commercial agriculture	Resource and habitat protection, research (population size trends)	Decreasing
<i>Diospyros katendei</i> Verdc.	Ebony	Globally Critically Endangered (CR), Endemic	Kasyoha Kitomi CFR	Intentional use of wood for poles and timber	Research (population size, distribution and trends)	Unknown
<i>Dracaena bugandana</i> Byng & Christenh.	Buganda Dragon Tree	Globally Critically Endangered (CR), Endemic	Hills in Kyegegwa area along Mubende to Kyenjojo road	Deforestation, wood fuel collection, rampant and indiscriminate bush burning, over application of fertilizers and wetland reclamation	Site/habitat protection, species management (ex situ conservation and genome resource banking), research (population size, distribution and trends life history and ecology, threats)	Unknown
<i>Dracaena bukedea</i> Takaw.-Ny. & <i>Mucina</i> [Sansevieria rosulata T.G.Forrest]	Snake Plant	Globally Endangered (EN), Endemic	Budaka, Kachumbala, Kakoro, Naboia	Unsustainable exploitation of plants for firewood, charcoal and brick burning and indiscriminate tree cutting at and around Kachumbala, wildfires	Site/habitat protection, community awareness, alternative energy sources and income generating activities such as bee keeping	Unknown

<i>Drimia congesta</i> Bullock	Drimia	Globally Endangered (EN), Near Endemic	Mt Elgon, Mt Moroto	Cultivation and seasonal burning	Site/habitat protection, research (population size, distribution and trends),	Unknown
<i>Emilia cryptantha</i> C.Jeffrey	Emilia	Globally Endangered (EN), Near Endemic	Kabaka's Lake, Kampala, near Kaziru, Lake Nabugabo	Residential and commercial development, housing and urban development, tourism and recreation, small holder farming	Site/area protection, research (threats) and community awareness	Decreasing
<i>Emilia longifolia</i> C.Jeffrey	Emilia	Globally Endangered (EN), Near Endemic	Omunyal River swamp, Serere	Habitat destruction from anthropogenic activities mainly agriculture	Research (population size, trends and threats),	Unknown
<i>Encephalartos equatorialis</i> P.J.H.Hurter	Bread Tree / Cycad	Globally Critically Endangered (CR), Endemic	Thruston Bay, Buwerere	Small-holder farming, Wood and pulp plantations, Livestock farming and ranching, Increase in fire frequency/intensity	Site/area protection, Awareness and communications, research (Life history and ecology and population trends)	Decreasing

<i>Encephalartos macrostrobilus</i> S.Jones & Wynants	Bread Tree/ Cycad	Globally Critically Endangered (CR), Endemic	Moyo area incl. Era CFR	Small-holder grazing, ranching or farming, Mining and quarrying, Increase in fire frequency/ intensity, illegal gathering of the plants	Site/area management, Awareness and communications, Linked enterprises and livelihood alternatives, research (Population size, distribution and trends, Life history and ecology and population trends)	Decreasing
<i>Encephalartos whitelockii</i> P.J.H.Hurter	Muhure Cycad	Globally Critically Endangered (CR), Endemic	Mpanga River Gorge	Small-holder farming, Small-holder grazing, ranching or farming, renewable energy (dam), illegal collection, Increase in fire frequency/ intensity	Site/area protection, Awareness and communications, research (Life history, ecology and population trends)	Decreasing
<i>Erica trimera</i> (Engl.) Beentje subsp. <i>elgonensis</i> (Mildbr.) Beentje	Tree Heather	Globally Vulnerable (VU), Near Endemic	Mt Elgon	Frequent fires, droughts, cattle grazing, firewood collection, charcoal production, extraction of building poles, wild fruits, herbal medicine and clearance for agricultural activity	Site/area management, species management through ex situ conservation and genome resource banking, research (population size, distribution and trends)	Unknown

<i>Erucastrum elgonense</i> Jonsell	Wild Mustard	Globally Vulnerable (VU), Endemic	Mt Elgon	Frequent fires, droughts, cattle grazing, firewood collection, and charcoal production	Site/area management, species management (ex situ conservation and genome resource bank), research and monitoring (population size, distribution and trends, threats)	Unknown
<i>Euphorbia depauperata</i> Hochst. ex A.Rich. var. <i>laevicarpa</i> Friis & Vollesen	Spurge	Globally Vulnerable (VU), Near Endemic	Agoro Agu CFR	Encroachment, including agricultural cultivation, felling of trees and rearing of livestock and wildfires	Site/area management, species management (ex situ conservation and genome resource bank), research and monitoring (population size, distribution trends and threats)	Unknown
<i>Euphorbia heterospina</i> S.Carter subsp. <i>heterospina</i>	Spurge	Globally Vulnerable (VU), Near Endemic	Kangole, Moroto River	Livestock rearing thus excessive grazing, artisanal small scale excavation of gold and marble	Site/area protection, research (threats) and community awareness	Unknown

<i>Euryops elgonensis</i> Mattf.	Daisy Shrub	Globally Vulnerable (VU), Near Endemic	Mt Elgon	Fire and drought, cultivation and unintentional effects of hunting and trapping animals	Site/area management, research (population size, distribution and trends, life history and ecology)	Unknown
<i>Ficus katendei</i> Verdc.	Katende Fig	Globally Endangered (EN), Endemic	Bwindi Impenetrable NP; Kasyoha Kitomi CFR	Gold mining at the Kitaka deposit in the north-east of Kashoya kitomi CFR	Site/area management, research (population size, distribution trends)	Unknown
<i>Fuirena pubescens</i> (Poir.) Kunth var. <i>abbreviata</i> Lye	Umbrella Sedge	Globally Vulnerable (VU), Endemic	Bugoma CFR, Buhara, Bukuya, Kabaka's (King's) Lake, Kampala, Kisombwa CFR, Namanve CFR	Residential and commercial development, Small-holder farming and plantations, grazing, ranching or farming	Site/area protection, Species management (Ex situ conservation and Genome resource bank)	Unknown
<i>Gymnosphaera mildbraedii</i> (Brause) S.Y.Dong [ <i>Cyathea mildbraedii</i> (Brause) Domin]	Tree Fern	Globally Endangered (EN), Near Endemic	Rwenzori Mtns	Climate change (habitat shifting and alteration), logging and wood harvesting,	Site/area management, Species management (Ex situ conservation, Captive breeding/ artificial propagation and Genome resource bank)	Decreasing

<i>Habenaria myodes</i> Summerh. subsp. <i>latipetala</i> Summerh.	Orchid	Globally Critically Endangered (CR), Near Endemic	Lake Mutanda, Mushongero, Nyarusiza	Small-holder farming, grazing, ranching or farming	Site/area protection, Species management (Ex situ conservation and Genome resource bank)	Unknown
<i>Habenaria ugandensis</i> Summerh.	Orchid	Globally Endangered (EN), Endemic	North of Bombo, Oruchor Hill, Busia	Agricultural expansion and overgrazing	Site/area protection, Species management (Ex situ conservation and Genome resource bank)	Decreasing
<i>Holothrix elgonensis</i> Summerh.	Orchid	Globally Endangered (EN), Near Endemic	Mt Elgon	Shifting agriculture, Small holder grazing, ranching or farming, Increase in fire frequency/intensity and Droughts	Site/area protection, research and monitoring (population size, trends and threats)	Unknown
<i>Impatiens miniata</i> Grey-Wilson	Balsam	Globally Vulnerable (VU), Near Endemic	Mt Elgon	Frequent fires, droughts, cattle grazing, firewood collection, and charcoal production	Site/area management, Species management (Ex situ conservation and Genome resource bank) and Research (Population size, distribution and trends, life history and ecology)	Unknown

<i>Leucas wilsonii</i> Sebald	Leucas	Globally Critically Endangered (CR), Near Endemic	Near Kasilo	Agricultural expansion	Research (population size, trends and threats), species management (ex situ conservation and genome bank)	Unknown
<i>Linderniella ugandensis</i> (Skan) Eb.Fisch, Schäferh. & Kai Müll.	Lindernia	Globally Critically Endangered (CR), Endemic	Ibanda, Mengo, Rufuha River	Cultivation (small scale)	Research (population size, trends and threats), species management (ex situ conservation and genome bank)	Unknown
<i>Lobelia gregoriana</i> Baker f. subsp. <i>elgonensis</i> (R.E.Fr. & T.C.E.Fr.) E.B.Knox [ <i>Lobelia deckenii</i> (Asch.) Hemsl. subsp. <i>elgonensis</i> (R.E.Fr. & T.C.E.Fr.) Mabb.]	Giant Lobelia	Globally Endangered (EN), Near Endemic	Mt Elgon	Settlements and swamp reclamation for cultivation	Awareness and communications, species management (ex situ conservation and genome bank) and Research (population size)	Decreasing
<i>Mimulopsis elliotii</i> C.B.Clarke	Mimulopsis	Globally Endangered (EN), Near Endemic	Rwenzori Mts	Pressure on the natural habitat for fuelwood and building materials is also increasing, even at fairly high altitudes	Species management (Ex situ conservation through Captive breeding/artificial propagation and Genome resource bank)	Unknown

<i>Nymphaea nouchali</i> Burm.f.var. <i>mudandensis</i> Verdc.	Water Lily	Globally Endangered (EN), Endemic	Lake Bunyonyi, Lake Mutanda	Exotic species (Louisiana Red Claw Crayfish, <i>Procambarus</i> <i>clarki</i> ) introduced into Lakes Mutanda and Bunyonyi, pollution from hotels	Species management (Ex situ conservation through Captive breeding/ artificial propagation and Genome resource bank)	Unknown
<i>Ochna leucophloeos</i> Hochst. ex A.Rich. subsp. <i>Ugandensis</i> Verdc.	Ochna	Globally Endangered (EN), Endemic	Adilang; Ajai WR, Toro-Semliki WR	Residential and commercial development, Small holder farming, grazing, ranching	Site/area protection, Species management (Ex situ conservation and Genome resource bank)	Unknown
<i>Oldenlandia</i> <i>duemmeri</i> S.Moore	Oldenlandia	Globally Endangered (EN), Near Endemic	Bugoye (Mengo), Kaazi, Kisi near Entebbe, Lake Nabugabo	Housing and urban areas, Commercial and industrial areas, Tourism and recreation areas, Annual and perennial non-timber crops, Livestock farming and ranching, Mining and quarrying	Site/area protection, Species management (Ex situ conservation and Genome resource bank)	Decreasing
<i>Oxyanthus</i> <i>ugandensis</i> Bridson	Wild Coffee Relative	Globally Endangered (EN), Near Endemic	Budongo CFR, Semuliki NP, Zoka CFR	Residential and commercial development Small- holder farming, Unintentional effects: (subsistence/small scale) [harvest]	Research (population size, trends and threats)	Unknown

<i>Pavetta bagshawei</i> S.Moore var. <i>leucosphaera</i> (Bremek.) Bridson	Pavetta	Globally Vulnerable (VU), Near Endemic	Kalinzu CFR, Kibale NP, Lutoto, North Maramagambo CFR	Residential and commercial development (housing and urban areas), Small-holder farming, Agro-industry plantations and Increase in fire frequency/intensity	Site/area management, research (population size, distribution and trends),	Unknown
<i>Pavetta grumosa</i> S.Moore	Pavetta	Globally Critically Endangered (CR), Endemic	Rufuha wetland, Ankole region	Small-holder farming and Small-holder grazing, ranching or farming	Research (population size, distribution and trends)	Unknown
<i>Pentas purseglovei</i> Verdc.	Pentas	Globally Endangered (EN), Near Endemic	Agoro Agu CFR, Nyangea-Napore Forest Reserve	Residential and commercial development (housing and urban areas), Shifting agriculture, Small-holder farming, Small-holder grazing, ranching or farming, Increase in fire frequency/intensity	Site/area management, species management (Ex situ conservation and Genome resource bank), research (Population size, distribution trends, threats), conservation planning (Area-based Management Plan)	Unknown

<i>Phyllanthus denticulatus</i> J.F.Brunel	Phyllanthus	Globally Critically Endangered (CR), Endemic	Udiko Hill, Busoga	Residential and commercial development (housing and urban areas), and shifting agriculture	Site/area management, Species management (Ex situ conservation and Genome resource bank), research (Population size, distribution trends, life history and ecology)	Unknown
<i>Psychotria bagshawei</i> E.M.A.Petit	Wild Coffee	Globally Endangered (EN), Near Endemic	Kalinzu CFR, Kibale NP (Isunga), Kyamahungu (near Kalinzu CFR), Mpanga CFR	Residential and commercial development, Logging and wood harvesting	Site/area protection, Species management (Ex situ conservation and Genome resource bank), Research (population size and trends)	Unknown
<i>Rhynchosia crispa</i> Verdc.	Rhynchosia	Globally Endangered (EN), Endemic	Lake Mburo NP, Muko Range Exper. Station, in Kigezi, Rushozi Dam, Mbarara	Shifting agriculture, Small-holder grazing, ranching or farming, Increase in fire frequency/intensity and Invasive non-native/alien species	Site/area protection, Species management (Ex situ conservation and Genome resource bank), Research (population size and trends)	Unknown

<i>Rinorea ituriensis</i> M.Brandt	Rinorea	Globally Critically Endangered (CR), Near Endemic	Kirala Forest, Mujuzi CFR	Small-scale agriculture	Site/area protection, Species management (Ex situ conservation and Captive breeding/artificial propagation), Awareness and communications, Research (Population size, distribution and trends; Life history and ecology); Conservation Planning (Species Action/Recovery Plan)	Unknown
<i>Rothea violacea</i> (Gürke) Verdc. subsp. <i>kigeziensis</i> (Verdc.) Verdc.	Rothea	Globally Critically Endangered (CR), Endemic	Kibale Forest, Mulole Hill (near Bwindi Impenetrable NP)	Small-holder farming	Research (Population size, distribution and trends)	Unknown
<i>Sabicea entebbensis</i> Wernham	Woodvine	Globally Endangered (EN), Endemic	Entebbe; Ssezibwa Falls; Nakiza Forest, Nansagazi; Ssesse Islands (Bugala), Kiubulu CFR	Residential and commercial development (Tourism and recreation areas), Agro-industry oil palm plantation farming	Research (Population size, distribution and trends)	Unknown

<i>Scleria glomerulata</i> Oliv.	Nut Sedge	Globally Critically Endangered (CR), Endemic	Madi Okollo district in Baribu town	Small-holder farming	Site/area protection, Species management (Ex situ conservation and Genome resource bank), Research (population size and trends)	Unknown
<i>Senecio navugabensis</i> C.Jeffrey	Ragwort	Globally Critically Endangered (CR), Endemic	Lake Nabugabo	Residential and commercial development (Tourism and recreation areas), Small-holder grazing, ranching or farming, and Increase in fire frequency/ intensity	Research (Population size, distribution and trends)	Unknown
<i>Snowdenia microcarpha</i> C.E.Hubb.	Grass	Globally Critically Endangered (CR), Endemic	Mt Elgon (Butandiga)	Encroachment at the forest boundary for agriculture (crop and livestock)	Awareness and communications, Research (Population size, distribution and trends, life history and ecology)	Unknown
<i>Solanecio gynuroides</i> C.Jeffrey	Giant Groundsel	Globally Vulnerable (VU), Endemic	Bwindi Impenetrable NP (Ishasha Gorge)	Small-holder farming	Research (Population size, distribution and trends, life history and ecology, threats)	Unknown



<i>Sporobolus scitulus</i> Clayton	Dropseed Grass	Globally Endangered (EN), Near Endemic	Agoro Agu CFR;	Residential and commercial development (housing and urban areas), Shifting agriculture, Small-holder grazing, ranching or farming, and Increase in fire frequency/intensity, droughts	Site/area management, research and monitoring (Population size, distribution and trends, threats), species management (Ex-situ conservation and Genome resource bank)	Unknown
<i>Swertia uniflora</i> Mildbr.	Swertia	Globally Endangered (EN), Near Endemic	Mt Elgon	Increase in fire frequency/ intensity, droughts, unintentional effects from honey hunters and poachers	Site/area management, Species management (Ex situ conservation and Genome resource bank), research (Population size, distribution and trends and life history and ecology)	Unknown
<i>Tiliacora latifolia</i> Troupin	Tiliacora	Globally Endangered (EN), Endemic	Budongo CFR, Bwindi Impenetrable NP, Itwara CFR, Kalinzu CFR, Kibale NP	Illegal logging and wood harvesting, Agro-industry farming (tea plantations in Kalizu CFR)	Research (population size, trends)	Unknown
<i>Trapa natans</i> L. var. <i>africana</i> Brenan	Water Chestnut	Globally Endangered (EN), Near Endemic	Lake Victoria: Bukakata, Entebbe, Jinja, Namanve	Pollution (domestic and urban waste water, runoff)	Research (population size, trends)	Unknown

<i>Triceratorhynchus comptus</i> (Summerh.) Szlach., Oledrz. & Mytnik [ <i>Distylodoncomptum</i> Summerh.]	Orchid	Globally Critically Endangered (CR), Endemic	Budongo CFR	Illegal logging and wood harvesting, Unintentional effects: (subsistence/small scale) [harvesting]	Site/area management, Awareness and communications	Unknown
<i>Trifolium lugardii</i> Bullock		Globally Endangered (EN), Near Endemic	Mt Elgon, Mt Moroto	Residential and commercial development (Housing and urban areas), Shifting agriculture, Nomadic grazing, Small-holder grazing, ranching or farming and Unintentional effects of biological resource use (species is not the target)	Site/area management, research (Population size, distribution and trends), conservation planning (Area-based Management Plan)	Unknown
<i>Uvariadendron fuscum</i> (Benth.) R.Fr. var. <i>magnificum</i> (Verdc.) Dagallier [ <i>Uvariadendron magnificum</i> Verdc.]	Custard Apple Species	Globally Endangered (EN), Endemic	Kasyoha-Kitomi CFR; Lutoboka, Ssesse Island.	Illegal logging for timber and fuelwood, agro-industry especially palm oil growing	Research (population size, trends and threats)	Unknown
<i>Vangueria volkensii</i> K.Schum. var. <i>fyffeii</i> (Robyns) Verdc.		Globally Critically Endangered (CR), Endemic	Maramagambo Forest (Sango Bay)	Agro-industry farming, illegal logging and wood harvesting	Site/area management	Unknown

<i>Xyris ednae</i> Lock		Globally Endangered (EN), Endemic	Lake Nabugabo, Lake Kayanja near Nabugabo, Kitovu	Residential and commercial development (Housing and urban areas, Commercial and industrial areas, Tourism and recreation areas)	Research (population size, trends, threats)	Decreasing
<i>Zaluzianskya elgonensis</i> Hedberg		Globally Endangered (EN), Near Endemic	Mt Elgon	Increase in fire frequency/intensity and droughts (climate change)	Site/area management, Species management  (Ex situ conservation and Genome resource bank), research (Population size, distribution and trends and life history and ecology)	Unknown



## APPENDIX B: INVERTEBRATES

## INSECTS

Order / Subphylum	Species	Author (s)	Common English Name	Conservation status
Odonata	<i>Gynacantha sextans</i>	McLachlan, 1896	Dark-rayed Duskhawker	Globally Least Concern (LC), Nationally Critically Endangered (CR)
Odonata	<i>Heliaeschna trinervulata</i>	Fraser, 1955	Pale Duskhawker	Globally Least Concern (LC), Nationally Critically Endangered (CR)
Odonata	<i>Pinheyschna meruensis</i>	Sjostedt, 1909	Meru Hawker	Globally Least Concern (LC), Nationally Critically Endangered (CR)
Odonata	<i>Pseudagrion bicoerulans</i>	Martin, 1907	Giant Sprite	Globally Vulnerable (VU), Nationally Critically Endangered (CR)
Odonata	<i>Pseudagrion isidromorai</i>	Compte Sart, 1967	Great Blue Sprite	Globally Least Concern (LC), Nationally Critically Endangered (CR)
Odonata	<i>Ictinogomphus regisalberti</i>	Schouteden, 1934		Globally Near Threatened (NT), Nationally Critically Endangered (CR)
Odonata	<i>Libyogomphus bwambae</i>	Pinhey, 1961	Bwamba Horntail	Globally Data Deficient (DD), Nationally Critically Endangered (CR)
Odonata	<i>Notogomphus maathaiaie</i>	Clausnitzer and Dijkstra, 2005	Maathai's Longleg	Globally Endangered (EN), Nationally Critically Endangered (CR)
Odonata	<i>Phyllogomphus annulus</i>	Klots, 1944		Globally Least Concern (LC), Nationally Critically Endangered (CR)
Odonata	<i>Neodythemis afra</i>	Ris, 1909		Globally Least Concern (LC), Nationally Critically Endangered (CR)

Odonata	<i>Neodythemis munyaga</i>	Dijkstra and Vick,2006	Bwindi Junglewatcher	Globally Endangered (EN), Nationally Critically Endangered (CR)
Odonata	<i>Neodythemis preussi</i>	Karsch,1891		Globally Least Concern (LC), Nationally Critically Endangered (CR)
Odonata	<i>Tetrathemis denticauda</i>	Fraser,1954		Globally Least Concern (LC), Nationally Critically Endangered (CR)
Odonata	<i>Idomacromia jillianae</i>	Dijkstra and Kisakye,2004	Jill's Shadowcruiser	Globally Data Deficient (DD), Nationally Critically Endangered (CR)
Odonata	<i>Phyllomacromia bispina</i>	Fraser,1954		Globally Least Concern (LC), Nationally Critically Endangered (CR)
Odonata	<i>Elattoneura lliba</i>	Legrand, 1985	Eastern Stream Threadtail	Globally Least Concern (LC), Nationally Critically Endangered (CR)
Odonata	<i>Stenocypha molindica</i>	Fraser, 1948	Bow-faced Jewel	Globally Near Threatened (NT), Nationally Endangered (EN)
Odonata	<i>Agriocnemis palaeforma</i>	Pinhey,1959	Papyrus Wisp	Globally threatened (VU), Nationally Endangered (EN)
Odonata	<i>Diastatomma selysi</i>	Schouteden,1934		Globally Least Concern (LC), Nationally Endangered (EN)
Odonata	<i>Elattoneura nigra</i>	Kimmins,1938	Black Threadtail	Globally Least Concern (LC), Nationally Endangered (EN)
Odonata	<i>Gynacantha africana</i>	Palisot de Beauvois,1807	Giant Duskhawker	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Gynacantha cylindrata</i>	Karsch,1891	Greater Girdled Duskhawker	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Gynacantha nigeriensis</i>	Gambles,1956	Yellow-legged Duskhawker	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Heliaeschna ugandica</i>	McLachlan,1896	Uganda Duskhawker	Globally Least Concern (LC), Nationally Vulnerable (VU)

Odonata	<i>Chlorocypha cancellata</i>	Selys, 1879	Exquisite Jewel	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Chlorocypha flammea</i>	Dijkstra, 2013	Flame-tipped Jewel	Globally and Nationally Vulnerable (VU)
Odonata	<i>Chlorocypha victoriae</i>	Forster, 1914	Victoria's Jewel	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Platycypha lacustris</i>	Forster, 1914	Forest Jewel	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Stenocypha jacksoni</i>	Pinhey, 1952	Yellow-sided Jewel	Globally Near Threatened (NT), Nationally Vulnerable (VU)
Odonata	<i>Stenocypha tenuis</i>	Longfield, 1936	Slender Jewel	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Pseudagrion kibalense</i>	Longfield, 1959	Forest Sprite	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Pseudagrion torridum</i>	Selys, 1876	Wing-tailed Sprite	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Gomphidia bredoi</i>	Schouteden, 1934	Northern Fingertail	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Notogomphus flavifrons</i>	Fraser, 1952	Yellow-fronted Longleg	Globally Data Deficient (DD), Nationally Vulnerable (VU)
Odonata	<i>Notogomphus gorilla</i>	Dijkstra, 2013	Gorilla Longleg	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Notogomphus leroyi</i>	Schouteden, 1934	Leroy's longlegs	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Notogomphus lujai</i>	Schouteden, 1934	Albertine Longleg	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Phyllogomphus selysi</i>	Schouteden, 1933	Bold Leaf-tail	Globally Least Concern (LC), Nationally Vulnerable (VU)

Odonata	<i>Aethiothemis coryndoni</i>	Fraser, 1953	Orange-bellied Flasher	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Atoconeura kenya</i>	Longfield, 1953	Kenyan Highlander	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Hadrothemis camarensis</i>	Kirby, 1889	Saddled Jungleskimmer	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Malgassophlebia bispina</i>	Fraser, 1958	Ringed Leaftipper	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Trithemis imitata</i>	Pinhey, 1961	Copycat Dropwing	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Allocnemis nigripes</i>	Selys, 1886	Rainbow Yellowwing	Globally Least Concern (LC), Nationally Vulnerable (VU)
Odonata	<i>Chlorocypha schmidti</i>	Pinhey, 1967	Albertine Jewel	Globally Endangered (EN), Nationally Data Deficient (DD)
Lepidoptera	<i>Andronymus marina</i>	Evans, 1937	Ochreous Dart	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Eagris nottoana</i>	Wallengren, 1857	Rufous-winged Flat	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Anthene alberta</i>	Buthune-Baker, 1910	Alberta Ciliate Blue	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Aphnaeus chapini</i>	Holland, 1920	Chapin's Silverline	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Aphnaeus nyanzae</i>	Stempffer, 1954	Nyanza Silverline	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Argyrocheila undifera</i>	Staudinger, 1892	Fairy White	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Cephetola cephena</i>	Hewitson, 1873	Cephenae Epitola	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)

Lepidoptera	<i>Epitola urania</i>	Kirby, 1887	Purple Giant Epitola	Globally Least Concern (LC), Nationally Critically Endangered (CR)
Lepidoptera	<i>Cephetola (Epitola) bwamba</i>	Jackson, 1964	Bwamba Epitola	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Cerautola (Epitola) miranda</i>	Staudinger, 1889	Wondrous Epitola	Globally Not Evaluated (NE)Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Stempfferia (Epitola) badura</i>	Kirby, 1890	Badura Epitola	Globally Least Concern (LC), Nationally Critically Endangered (CR)
Lepidoptera	<i>Stempfferia (Epitola) carilla</i>	Roche, 1954	Carilla Epitola	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Epitolina catori</i>	Bethune-Baker, 1904	Red-patch Epitolina	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Falcuna iturina</i>	Stempfferand Bennett, 1963	IturiFalcuna	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Hypokopelates mera</i>	Hewitson, 1873	Mera Blue	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Iolaus mongiro</i>	Stempffer, 1969	Mongiro Sapphire	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Iolaus pseudofrater</i>	Stempffer, 1962	False Frater Sapphire	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Iolaus pseudopollux</i>	Stempffer, 1962	False Pollux Sapphire	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Liptena eukrinoides</i>	Talbot, 1937	White Liptena	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Liptena orubrum</i>	Holland, 1890	Large Black Liptena	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)

Lepidoptera	<i>Liptena opaca</i>	Kirby, 1890	Kirby's Liptena	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Micropentila victoriae</i>	Stempfferand Bennett, 1965	Victoria Dots	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Micropentila cherereti</i>	Stempfferand Bennett, 1965	Cherereti Dots	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Micropentila jacksoni</i>	Talbot, 1937	Jackson's Dots	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Micropentila katera</i>	Stempfferand Bennett, 1965	Katera Dots	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Micropentila mpigi</i>	Stempfferand Bennett, 1965	Mpigi Dots	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Micropentila subplagata</i>	Bethune-Baker, 1915	Subplagata Dots	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Mimacraea landbecki</i>	Druce, 1910	Landbeck's Acraea Mimic	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Neaveia lamborni</i>	Druce, 1910	Lamborn's Buff	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Neurellipes (Anthene) lusones</i>	Hewitson, 1874	Round-spot Inkblot	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Pentila tachyroides</i>	Dewitz, 1879	MylothridPentila	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Spindasis crustaria</i>	Holland, 1890	Violet Silverline	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Toxochitona vansomereni</i>	Stempffer, 1954	Van Someren's Epitola	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Acraea eltringhami</i>	Joiceyand Talbot, 1921	Eltringham's Acraea	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)

Lepidoptera	<i>Acraea simulata</i>	Le Doux, 1923	Simulated Acraea	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Acraea alciope</i>	Hewitson, 1852	Hewitson's Acraea	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Charaxes alticola</i>	Grünberg, 1911	Highland Charaxes	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Charaxes xiphares</i>	Cramer, 1781	Forest King Emperor	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Euptera elabontas</i>	Hewitson, 1871	Western Triple-barred Pilot	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Euryphura plautilla</i>	Hewitson, 1865	Hewitson's Commander	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Neptis puella</i>	Aurivillius, 1894	Little Sailer	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Mylothris sagala</i>	Grose-Smith, 1886	Dusky Dotted Border	Globally Not Evaluated (NE), Nationally Critically Endangered (CR)
Lepidoptera	<i>Andronymus helles</i>	Evans, 1937	Lesser Ochreous Dart	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Hypoleucis (Caenides) dacena</i>	Hewitson, 1876	White-fringed Recluse	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Lissia (Caenides) lissa</i>	Evans, 1937	Fused Hermit	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Stempfferia (Epitola) cercenoides</i>	Holland, 1890	Common Epitola	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Geritola (Epitola) cyanea</i>	Jackson, 1964	Cyanea Epitola	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Cephetola (Epitola) catuna</i>	Kirby, 1890	Catuna Epitola	Globally Not Evaluated (NE), Nationally Endangered (EN)

Lepidoptera	<i>Cephetola (Epitola) mpangensis</i>	Jackson, 1962	Mpanga Epitola	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Cephetola (Epitola) orientalis</i>	Roche, 1954	Oriental Epitola	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Cephetola (Epitola) subgriseata</i>	Jackson, 1964	Subgriseata Epitola	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Geritola (Epitola) subargentea</i>	Jackson, 1964	Silvery Epitola	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Stempfferia (Epitola) ciconia</i>	Jackson, 1968	Stork Epitola	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Stempfferia (Epitola) cercene</i>	Hewitson, 1873	Cercene Epitola	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Eresina toroensis</i>	Joicey and Talbot, 1921	Toro Eresina	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Iolus bolissus</i>	Hewitson, 1873	Bolissus Sapphire	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Iolus creta</i>	Hewitson, 1878	Blotched Sapphire	Globally Least Concern (LC), Nationally Endangered (EN)
Lepidoptera	<i>Iolus neavei</i>	Druce, 1910	Neave's Sapphire	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Iridana jacksoni</i>	Stempffer, 1964	Jackson's Sapphire	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Iridana marina</i>	Talbot, 1935	Marina Sapphire	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Iridana bwamba</i>	Stempffer, 1964	Bwamba Sapphire	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Iridana katera</i>	Stempffer, 1964	Katera Sapphire	Globally Not Evaluated (NE), Nationally Endangered (EN)

Lepidoptera	<i>Lachnocnema magna</i>	Aurivillius, 1895	Large Woolly Legs	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Liptena amabilis</i>	Scultze, 1923	Amabilis Liptena	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Liptena hapale</i>	Talbot, 1935	HapaleLiptena	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Liptena undina</i>	Grose-Smith and Kirby, 1894	Undina Liptena	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Megalopalpus metaleucus</i>	Karsch, 1893	Large Harvester	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Micropentila bunyoro</i>	Stempfferand Bennett, 1965	Bunyoro Dots	Globally Data deficient (DD), Nationally Endangered (EN)
Lepidoptera	<i>Mimacraea fulvaria</i>	H. H. Druce, 1912	Fulvaria Acraea Mimic	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Mimacraea krausei</i>	Dewitz, 1889	Krause's Acraea Mimic	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Ornipholidotos ntebi</i>	Bethune-Baker, 1906	Ntebi Blue	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Pentila umangiana</i>	Aurivillius, 1898	UmangianaPentila	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Phytala elais</i>	Westwood, 1851	Elais Blue	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Pilodeudorix ankoleensis</i>	Stempffer, 1953	Ankole Playboy	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Iolus (Tanuethaira) timon</i>	Fabricius, 1787	Timon Sapphire	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Telipna aurivillii</i>	Rebel, 1914	AurivilliusTelipna	Globally Not Evaluated (NE), Nationally Endangered (EN)

Lepidoptera	<i>Telipna kayonza</i>	Jackson, 1969	KayonzaTelipna	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Teratoneura isabellae</i>	Dudgeon, 1909	Western Isabella	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Thermoniphastogara</i>	Plötz, 1880	Bright Chalk Blue	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Toxochitona sankuru</i>	Stempffer, 1961	Sankuru Epitola	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Uranothauma heritsia</i>	Hewitson, 1876	Light Branded Blue	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Acraea kalinzu</i>	Carpenter, 1936	Kalinzu Acraea	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Bebearia phantasiella</i>	Staudinger, 1891	Fantasiella Forester	Globally Least Concern (LC), Nationally Endangered (EN)
Lepidoptera	<i>Bicyclus kenia</i>	Rogenhofer, 1891	Kenya Bush Brown	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Bicyclus procora</i>	Karsch, 1893	Cinnamon Bush Brown	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Cymothoe egesta</i>	Cramer, 1779	Common Yellow Glider	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Cymothoe indamora</i>	Hewitson, 1866	Indamora Glider	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Euryphura isuka</i>	Joiceyand Talbot, 1921	Scarce Commander	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Palla violinitens</i>	Crowley, 1890	Violet-banded Palla	Globally Least Concern (LC), Nationally Endangered (EN)
Lepidoptera	<i>Graphium ucalegon</i>	Hewitson, 1865	Creamy Graphium	Globally Not Evaluated (NE), Nationally Endangered (EN)

Lepidoptera	<i>Papilio interjecta</i>	Van Someren, 1960	Van Someren's Green-banded Swallowtail	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Papilio leucotaenia</i>	Rothschild, 1908	Cream-banded Swallowtail	Globally VU, Nationally Endangered (EN)
Lepidoptera	<i>Papilio zenobia</i>	Fabricius, 1775	Zenobia Swallowtail	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Belenois theuszi</i>	Dewitz, 1889	Central Caper White	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Dixeia dixeyi</i>	Neave, 1904	Dixey's White	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Leptosia marginea</i>	Mabille, 1890	Black-edged Spirit	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Mylothris hilara</i>	Karsch, 1892	Hilara Dotted Border	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Mylothris kiwuensis</i>	Grünberg, 1910	Kiwu Dotted Border	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Mylothris sjostedti</i>	Aurivillius, 1895	Sjöstedt's Dotted Border	Globally Not Evaluated (NE), Nationally Endangered (EN)
Lepidoptera	<i>Acleros neavei</i>	Evans, 1937	Neave's Dart	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Celaenorrhinus ovalis</i>	Evans, 1937	Evans' Orange Sprite	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Ceratrachia wollastoni</i>	Heron, 1909	Wollaston's Sprite	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Ceratrachia aurea</i>	Druce, 1910	Golden Sprite	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Coeliade shanno</i>	Plötz, 1879	Three Pip Policeman	Globally Not Evaluated (NE), Nationally Vulnerable (VU)

Lepidoptera	<i>Gamia shelleyi</i>	Sharpe, 1890	Lesser Grand Skipper	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Gorgyrakalizu</i>	Evans, 1949	Kalizu Leaf Sitter	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Gretna cylindra</i>	Hewitson, 1876	Lesser Crepuscular Skipper	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Hypoleucis tripunctata</i>	Mabille, 1891	Unmarked Costus Skipper	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Monza alberti</i>	Holland, 1896	Black Grass Skipper	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Osmode somar</i>	Swinhoe, 1916	Obsolete White-spots	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Pardaleodes bule</i>	Holland, 1896	Bule Pathfinder	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Pardaleodes tibullus</i>	Fabricius, 1793	Large Pathfinder Skipper	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Anthene ituria</i>	Bethune-Baker, 1910	Ituri Ciliate Blue	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Cupidestes leonina</i>	Bethune-Baker, 1904	Leonine Ciliate Blue	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Hypolycaena nigra</i>	Bethune-Baker, 1914	Black Fairy Hairstreak	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Larinopoda lagyra</i>	Hewitson, 1866	White Pierid Blue	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Liptenara hiendlmayri</i>	Dewitz, 1886	Hiendlmayr's Liptenara	Globally Not Evaluated (NE), Nationally Vulnerable (VU)

Lepidoptera	<i>Triclema staudingeri</i>	Smith and Kirby, 1894	Staudinger's Hairtail	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Oboronia gussfeldti</i>	Dewitz, 1879	Güssfeldt's Blue	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Ornipholidotos katangae</i>	Stempffer, 1947	Katanga Blue	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Pentila inconspicua</i>	Druce, 1910	Inconspicuous Pentila	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Telipna nyanza</i>	Neave, 1904	Nyanza Telipna	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Telipna sheffieldi</i>	Bethune-Baker, 1926	Sheffield's Telipna	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Thermoniphys plurilimbata</i>	Karsch, 1895	Plurilimbata Chalk Blue	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Toxochitona ankole</i>	Stempffer, 1967	Ankole Epitola	Globally Data deficient (DD), Nationally Vulnerable (VU)
Lepidoptera	<i>Acraea alcinoe</i>	Felder and Felder, 1865	AlcinoeBematistes	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Acraea kraka</i>	Aurivillius, 1893	Kraka Glassy Acraea	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Acraea parrhasia</i>	Fabricius, 1793	Yellow-veined Acraea	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Acraea rogersi</i>	Hewitson, 1873	Rogers' Large Acraea	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Acraea alcipioides</i>	Joicey and Talbot, 1921	Alcipioides Acraea	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Acraea ntebia</i>	Sharpe, 1897	Ntebia Acraea	Globally Not Evaluated (NE), Nationally Vulnerable (VU)

Lepidoptera	<i>Acraea pentapolis</i>	Ward, 1871	Musanga Acraea	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Amauris ellioti</i>	Butler, 1895	Ansorge's Danaid	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Vanessa (Antanartia) abyssinica</i>	Felder, 1867	Abyssinian Admiral	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Bebearia barce</i>	Doubleday, 1847	Shining Green Forester	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Bebearia laetitioides</i>	Joicey and Talbot, 1921	Laetitioides Forester	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Bebearia partita</i>	Aurivillius, 1895	Falcate Forester	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Bebearia plistonax</i>	Hewitson, 1874	Plistonax Forester	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Bebearia tentyris</i>	Hewitson, 1866	Hewitson's Forester	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Catuna angustatum</i>	C. and R. Felder, 1867	Large Pathfinder	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Cymothoe jodutta</i>	Westwood, 1850	Jodutta Glider	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Cymothoe reginae lisabethae</i>	Holland, 1920	Queen Elizabeth Glider	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Cynandra opis</i>	Drury, 1773	Brilliant Nymph	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Euphaedra rex</i>	Stoneham, 1935	King Euphaedra	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Euriphene atossa</i>	Hewitson, 1865	Atossa Nymph	Globally Not Evaluated (NE), Nationally Vulnerable (VU)

Lepidoptera	<i>Euriphene butleri</i>	Aurivillius, 1904	Butler's Nymph	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Euriphene tadema</i>	Hewitson, 1866	Straw Nymph	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Euryphura chalcis</i>	Felder and Felder, 1860	Common Commander	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Hypolimnas bartteloti</i>	Grose-Smith, 1890	Barttelot's Eggfly	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Neptis poultoni</i>	Eltringham, 1921	Poulton's Sailer	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Neptis carpenteri</i>	Eltringham 1922	Carpenter's Sailer	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Neptis continuata</i>	Holland 1892	Continuous Sailer	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Neptis trigonophora</i>	Butler, 1878	Barred Sailer	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Pseudathyma plutonica</i>	Butler, 1902	Pluto Sergeant	Globally Least Concern (LC), Nationally Vulnerable (VU)
Lepidoptera	<i>Graphium ridleyanus</i>	White, 1843	Acraea Swordtail	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Papilio antimachus</i>	Drury, 1782	African Giant Swallowtail	Globally Data Deficient (DD), Nationally Vulnerable (VU)
Lepidoptera	<i>Papilio charopus</i>	Westwood, 1843	Tailed Green-banded Swallowtail	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Papilio jacksoni</i>	Sharpe, 1891	Jackson's Swallowtail	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Belenois sudanensis</i>	Talbot, 1929	Sudan Caper White	Globally Not Evaluated (NE), Nationally Vulnerable (VU)

Lepidoptera	<i>Belenois victoria</i>	Dixey, 1915	Victoria White	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Mylothris croceus</i>	Butler, 1895	Croceus Dotted Border	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Lepidoptera	<i>Pseudopontia mabira</i>	Felder and Felder, 1869	Mabira Ghost	Globally Not Evaluated (NE), Nationally Vulnerable (VU)
Orthoptera	<i>Physophorina livingstonii</i>	Westwood, 1874	Dark-rayed Duskhawker	Globally Endangered (EN), Nationally Not Evaluated (NE)
Orthoptera	<i>Horatosphaga elgonis</i>	Chopard, 1938	Pale Duskhawker	Globally threatened (VU), Nationally Not Evaluated (NE)
Orthoptera	<i>Phymeurus granulatus</i>	Uvarov, 1922	Meru Hawker	Globally Vulnerable (VU), Nationally Not Evaluated (NE)
Orthoptera	<i>Phymeurus morotoensis</i>	Rowell, 2015	Giant Sprite	Globally Endangered (EN), Nationally Not Evaluated (NE)
Order/ Subphylum	Species	Author (s)	Common English Name	Justification
Mollusca	<i>Afrogyrorbis apertus</i>	E. von Martens, 1897	Freshwater shrimp	Globally Endangered (EN), Nationally Not Evaluated (NE)
Mollusca	<i>Afrogyrorbis bicarinatus</i>	Mandahl-Barth, 1954	Lake Mutanda freshwater crab	Globally Vulnerable (VU), Nationally Not Evaluated (NE)
Mollusca	<i>Afrogyrorbis concavus</i>	Mandahl-Barth, 1954	Freshwater copepod	Globally Critically Endangered (CR), Nationally Not Evaluated (NE)
Mollusca	<i>Afrogyrorbis crassus</i>	Mandahl-Barth, 1954	Freshwater shrimp	Globally Endangered (EN), Nationally Not Evaluated (NE)
Mollusca	<i>Afrogyrorbis subtilis</i>	Mandahl-Barth, 1954	Lake Bunyonyi freshwater shrimp	Globally Critically Endangered (CR), Nationally Not Evaluated (NE)

Mollusca	<i>Aspatharia divaricata</i>	E. von Martens, 1897	Freshwater shrimp	Globally Critically Endangered (CR), Nationally Not Evaluated (NE)
Mollusca	<i>Bellamyia phthinotropis</i>	E. von Martens, 1892	Freshwater copepod	Globally Critically Endangered (CR), Nationally Not Evaluated (NE)
Mollusca	<i>Bellamyia rubicunda</i>	E. von Martens, 1879	Freshwater crab	Globally Endangered (EN), Nationally Not Evaluated (NE)
Mollusca	<i>Bulinus mutandensis</i>	Bulinus O.F.Müller, 1781	Ramshorn freshwater snail	Globally Vulnerable (VU), Nationally Not Evaluated (NE)
Mollusca	<i>Cleopatra bulimoides</i>	Olivier, 1804	Ramshorn freshwater snail	Globally Vulnerable (VU), Nationally Not Evaluated (NE)
Mollusca	<i>Cleopatra cridlandi</i>	Mandahl-Barth, 1954	Ramshorn freshwater snail	Globally Critically Endangered (CR), Nationally Not Evaluated (NE)
Mollusca	<i>Coelatura alluaudi</i>	Dautzenberg, 1908	Ramshorn freshwater snail	Globally Vulnerable (VU), Nationally Not Evaluated (NE)
Mollusca	<i>Coelatura cridlandi</i>	Mandahl-Barth, 1954	Ramshorn freshwater snail	Globally Endangered (EN), Nationally Not Evaluated (NE)
Mollusca	<i>Euptera crassa</i>	Mandahl-Barth, 1954	Freshwater mussel	Globally Critically Endangered (CR), Nationally Not Evaluated (NE)
Mollusca	<i>Gabbiella candida</i>	Mandahl-Barth, 1968	Freshwater snail	Globally Critically Endangered (CR), Nationally Not Evaluated (NE)
Mollusca	<i>Gabbiella humerosa</i> ssp. <i>Alberti</i>	Mandahl-Barth 1954	Freshwater snail	Globally Endangered (EN), Nationally Not Evaluated (NE)
Mollusca	<i>Gabbiella humerosa</i> ssp. <i>edwardi</i>	E. von Martens, 1897	Mutanda freshwater snail	Globally Endangered (EN), Nationally Not Evaluated (NE)
Mollusca	<i>Gabbiella parva</i>	Mandahl-Barth, 1954	Freshwater snail	Globally Critically Endangered (CR), Nationally Not Evaluated (NE)

Mollusca	<i>Gabbiella walleri</i>	E.A Smith, 1888	Freshwater snail	Globally Critically Endangered (CR), Nationally Not Evaluated (NE)
Mollusca	<i>Gyraulus connollyi</i> ssp. <i>exilis</i>	D.S.Brownand Van Eeden, 1969	Freshwater mussel	Globally Vulnerable (VU), Nationally Not Evaluated (NE)
Mollusca	<i>Pettancylus toroensis</i>	Mandahl-Barth, 1954	Freshwater mussel	Globally Critically Endangered (CR), Nationally Not Evaluated (NE)
Mollusca	<i>Sphaerium regularis</i>	Mandahl-Barth, 1954	Fingernail clam	Globally Endangered (EN), Nationally Not Evaluated (NE)
Crustacean	<i>Caridina gordonae</i>	Richard and Clark, 2005	Freshwater snail	Globally Vulnerable (VU), Nationally Not Evaluated (NE) (NE)
Crustacean	<i>Potamonautes mutandensis</i>	Chace, 1942	Freshwater snail	Globally Endangered (EN), Nationally Not Evaluated (NE)
Crustacean	<i>Tropodiptomus stuhlmanni</i>	Mrázek, 1895	Freshwater snail	Globally threatened (VU), Nationally Not Evaluated (NE) (NE)
Crustacean	<i>Caridina pseudonilotica</i>	Richard and Clark, 2005	Freshwater snail	Globally Vulnerable (VU), Nationally Not Evaluated (NE)
Crustacean	<i>Caridina bunyonyiensis</i>	Richard and Clark, 2005	Freshwater snail	Globally Vulnerable (VU), Nationally Not Evaluated (NE)
Crustacean	<i>Caridina subventralis</i>	Richard and Clark, 2005	Ramshorn freshwater snail	Globally Critically Endangered (CR), Nationally Not Evaluated (NE)
Crustacean	<i>Thermodiptomus galeboides</i>	Sars G.O., 1909	Freshwater limpet snail	Globally Vulnerable (VU), Nationally Not Evaluated (NE)
Crustacean	<i>Potamonautes gonocristatus</i>	Bott, 1955	Fingernail clam	Globally Endangered (EN), Nationally Not Evaluated (NE)



### Appendix D: Data and Information Contributors





*(Photo: James Kalema)*

