

# Annual Report 2023



Coordination | Innovation | Partnerships



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Sable Antelope are only found in Shimba Hills in Kenya and a recent census by the Institute only recorded < 50 individusls. These antelope are among Africa's most distinctive species. Kenya Wildlife Service together with the Institute recently launched a recovery plan with clear actions to save the species.



#### taxonomy

	· · · · · · · · · · · · · · · · · · ·
Kingdom:	Animalia
Phylum:	Chordata
Subphylum:	Vertebrata
Class:	Mammalia
Order:	Artiodactyla
Family:	Bovidae
Subfamily:	Hippotraginae
Genus:	Hippotragus
Species:	Hippotragus niger roosevelti

### breeding

Females become reproductively active at the age of 2years; male: 3-4 years but does not breed until 5-6years. The gestation period is about . 268-280days. Season: End of rainy season; varies according to location

Infographic: Boniface Gor

Number of individuals remaining is less than 50 in Kenya\*

### threats

AND AN ANXING











habitat Forest, Savanna, Grassland, Shrubland

status Nationally Critically Endangered



Photo: Courtesy | \*Source: WRTI & KWS, 2023

# Statement by the Director/CEO

The Institute is now two-and-a-half years old since the commencement of its operations as an independent State Agency in the Ministry of Tourism and Wildlife. This Annual Report gives us an opportunity to reflect on our journey as we gaze ahead into the future.

The Institute has continued to grow apace in fulfilment of its mandate in wildlife research and training accomplishing significant milestones and ensuring provision of timely, accurate, and comprehensive data and information to inform policy decisions and management of wildlife resources in Kenya.

The Institute has aligned its operations to the Bottom-up Economic Transformation Agenda (BETA) necessitating a review of the recently launched five-year Strategic Plan (2022-2027). The review will address operational gaps and weaknesses that have been identified during implementation. It is expected that the revised Strategic Plan will be re-launched in the coming year.

The Board of the institute is now fully constituted and all relevant Board Committees are functional as mandated by Law. During the year 2023, key policy documents were approved to streamline institutional operations including Intellectual Property Rights, Research Grants Management, Consultancy Policy and the Scholarships and Work-study policy.

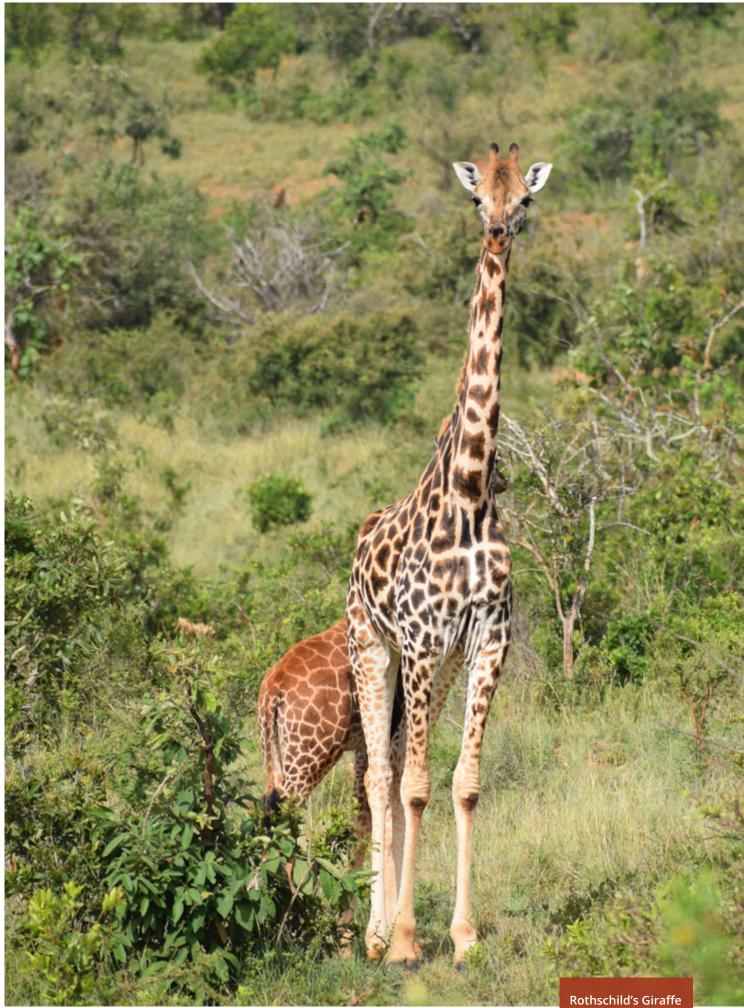
The research and training agenda was strengthened by the launch of strategic reports including the National Wildlife Research Agenda 2023-27 and the Impacts of Drought on Wildlife Report and the first Wildlife Scientific Conference with participation of local and international delegates. The 21st Graduation Ceremony was the culmination of a successful year with the graduation of 376 graduates with diploma and certificates.

To enhance the Institute's brand visibility and online communications, and recognition we revamped the website, increased social media presence on Facebook, X (formerly Twitter).

I wish to thank our Cabinet Secretary, Hon. Dr. Alfred Mutua, EGH, Principal Secretary Ms. Silvia Museiya and the Board of the Institute through our chairman Dr. David Nkedianye, for their visionary leadership and support that has allowed us accomplish the great milestones. We also appreciate the staff for diligence in this ending year and I look forward to a more productive 2024.

#### Dr. Patrick Omondi, OGW

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Rothschild's Giraffe Mwea National Reserve

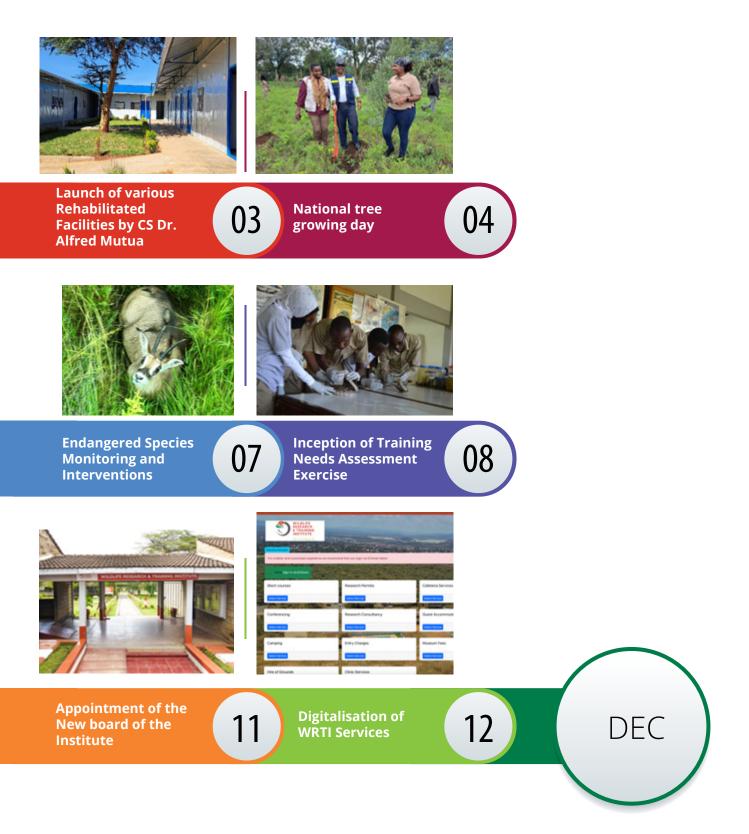
The Wildlife Research and Training Institute (WRTI) is mandated to conduct and coordinate wildlife research and academic training in the country to enhance planning and decision-making in wildlife conservation and management.

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# The Year 2023 at a Glance





# **Board Members Profiles**



**Dr. David Nkedianye** Chair of the Board of Institute



# Dr. Patrick Omondi, OGW

Director/CEO and Secretary to the Board of Institute



### Margaret Kariuki

Representative of Principal Secretary of the Ministry responsible for matters relating to science and technology



### Silvia Museiya, CBS

Principal Secretary, State Department for Wildlife



### **Brian Cheruiyot**

Representative of Principal Secretary of the Ministry responsible for matters relating to finance



**Noreen Wambui** Ex-officio and representative from the Inspectorate of State Corporations



**Dr. Albert Long'ora** Independent Board Member representing institutions of higher learning



### Dr. Yussuf Adan Wato

Independent Board Member representing Institutions of Higher Lerning

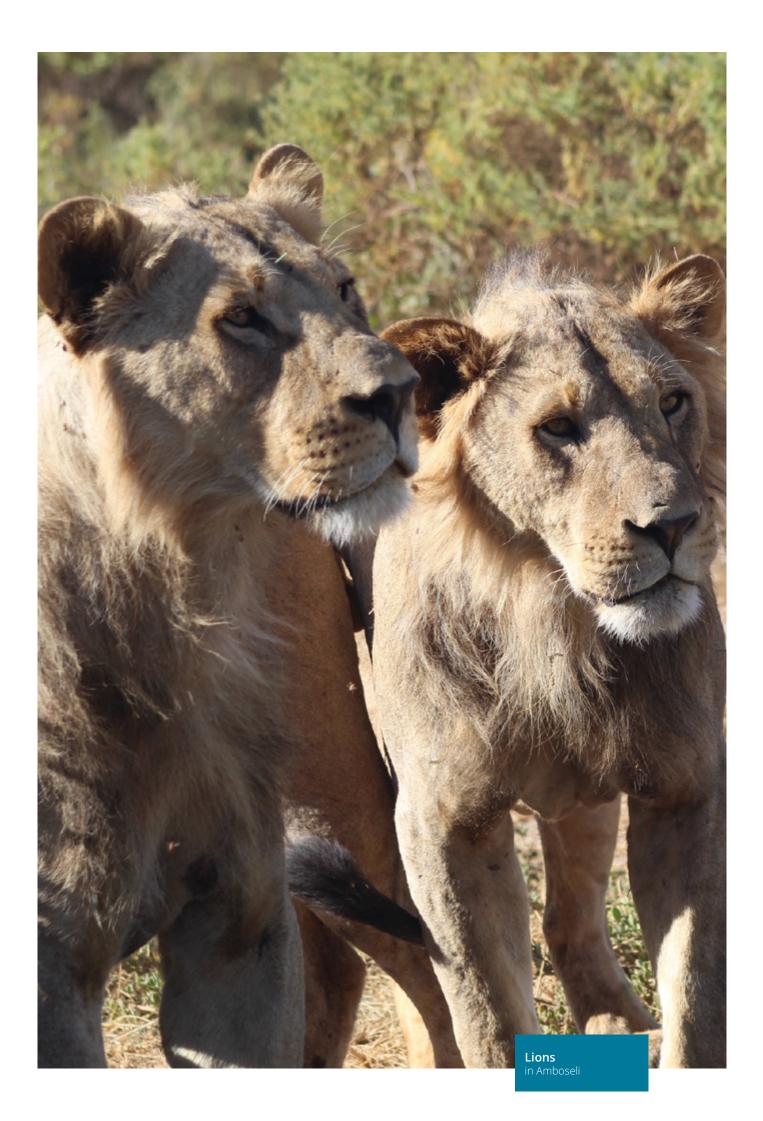


**Daniel Letoiye** 

Independent Board Member representing community and privately managed wildlife areas



#### **Francis Simiren Nkoitoi** Independent Board Member representing community and privately managed wildlife areas





Stewardship In Wildlife Research



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# Highlights of Field Research Centres

The research division has four (4) field research centres around the following thematic areas:

### Savannah Arid and Semi-Arid Ecosystem



The Savannah, Arid and Semi-Arid Ecosystem Research Centre (SASAE) is located in Tsavo, Voi. The centr has sub-centres in Ruma National Park, Maasai Mara National Reserve, Meru National Park, Tsavo West National Park, Nairobi National Park, Amboseli National Park, Nakuru National Park and Marsabit National Park. Spatial coverage is mainly the national parks and reserves and their influence zones. Within the year 2023, the following major activities were implemented:

- Carrying capacity/stocking rates assessment studies for the roan and the giraffe in Ruma National Park.
- Lion census in the Tsavo–Amboseli Ecosystem.
- Seedling propagation in tree nurseries in Tsavo, Meru and Amboseli.
- Seedling propagation in greenhouses in Tsavo.
- Invasive species control within various protected areas.
- Cochineal breeding for invasive species control in Tsavo East National Part
- Study on demography of Topi's in the Maasai Mara National Reserve

### Marine and Coastal Centre



This research centre focuses on coastal and marine ecosystems research. The centre engages in long-term ecological monitoring within six MPAs including Kisite-Mpunguti, Diani-Chale, Mombasa, Watamu, Malindi and Kiunga MPA. The marine centre has been instrumental in developing and mainstreaming the conservation and sustainable use of coastal urban and marine environment resources.

Among the major activities undertaken in the year 2023 are:

- Implementation of the UNEP-EU funded GO BLUE Programme for Diani-Chale and Kisite-Mpunguti Marine.
- Wildlife census in Shimba Hills National Reserve.
- Ecological monitoring of Kisite-Mpunguti, Mombasa Marine National Park and Reserve, Watamu Marine National Park and Reserve, Malindi Marine National Park and Reserve and Kiunga Marine National Park and Reserve.
- Red Colobus monkey behaviour monitoring in Tana Primate Reserve.
- Marine megafauna aerial census jointly undertaken with other conservation partners.

### **Montane Centre**

This research centre carries out and coordinates wildlife research and monitoring activities with a focus on montane and forest ecosystems in Kenya. It comprises the headquarters located in King'ong'o, Nyeri with two sub-centres located in Kakamega and Kitale. In 2023, the following activities were undertaken:

- Established high altitude nursery for propagation of high-altitude indigenous tree seedlings, up to 5,000 seedlings propagated.
- Habitat overlap survey of the spotted hyena (Crocuta crocuta) and endangered mountain bongo (Tragelaphus



# eurycerus isaaci) and eastern black rhinos (Diceros bicornis michaeli) in the Aberdare National Park.

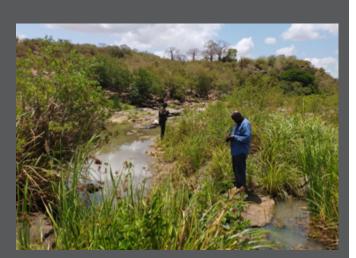
- A survey on population and distribution of the De-Brazza's Monkeys (Cercopithecus neglectus) in Kakamega Forest National Reserve.
- A long-term monitoring of the African Grey Parrot & DeBrazza monkeys in Kakamega Forest.



### **Inland Wetlands Centre**

The Inland Waters and Wetlands Research Centre is located at the shores of Lake Naivasha. The centre focuses on multi-disciplinary research programmes that contribute to the understanding, conservation, and sustainable management of inland waters and wetland ecosystems. A number of initiatives were undertaken in 2023 that are worthy to note.

- Propagation culture and value addition of aquatic algae (Spirulina spp.).
- Experimental breeding and culture of threatened and endangered freshwater fish species.
- Routine monitoring of Kenyan wetlands.





# 1st Wildlife Scientific Conference



### The Institute hosted its inaugral Wildlife Scientific Conference in Kenya at the Lake Naivasha Resort from 26th to 28th September, 2023.

The theme of the conference was "Use of wildlife science for enhanced biodiversity conservation and improved livelihoods" which highlighted the nexus between science, policy, management and livelihoods.

The conference attracted 127 scientific papers from experts comprising 103 local and 24 international experts (UK, USA, Tanzania, Benin, South Africa, France,

Netherlands, Spain and Germany). A total of 424 participants and 15 exhibitors attended the conference. The presenters provided insights on a wide range of issues in the wildlife sector including changes in wildlife population trends and dynamics; wildlife habitat restoration and connectivity; climate change mitigation and adaptability; human-wildlife coexistence; diseases and loss of genetic viability; and natural capital accounting systems and payment for ecosystem services

"The Government recognises the need for evidence-based decisionmaking and emphasizes the importance of knowledge, information, and human capital for successful conservation."

for socio-economic benefits among others. In addition, the conference acted as a channel for disseminating information gathered internally and externally through wildlife research.

The conference was officially opened by the Prime Cabinet Secretary, Hon. Musalia Mudavadi on behalf of the President of the Republic of Kenya, H.E. Dr. William Samoei Ruto. In his speech, he noted that the Government recognizes the need for evidence based decision-making and emphasizes the importance of knowledge, information, and human capital for successful conservation. This calls for decision support tools for adaptive management, and promotes data sharing, use, and integrated crosssectoral and multi-scale planning for conservation and sustainable development. To this end, he indicated that the Institute is expected to enhance knowledge through research on the status of the country's wildlife

and their potential to facilitate optimized benefits and provide quality and comprehensive wildlife data and information to inform policy formulation. He further emphasized the need for innovative approaches to address the challenges in the wildlife sector. The then Cabinet Secretary, Ministry of Tourism, Wildlife and Heritage Hon. Peninah Malonza and the Principal Secretary, State Department for Wildlife Ms. Silvia Museiva attended the conference and addressed the participants.

Also present was the Chairman, Board of the Institute, Dr. David Nkedianye, Director/CEO, Dr. Patrick Omondi, Members of the Parliamentary Committee on Tourism and Wildlife as well as Chief Executive officers from various Government and Non-Governmental institutions. In line with the theme of the conference, the presentations were categorized in to the following ten (10) sub-themes: Changes in wildlife population trends and dynamics; Initiatives towards wildlife habitat restoration and connectivity; Approaches to climate change mitigation and adaptability; Emerging alternative wildlife utilization and enterprises; Approaches to enhance human-wildlife coexistence in human dominated landscapes; Addressing wildlife health challenges through One Health approach; Use of new technology in addressing wildlife conservation challenges; Use of science for harmonized policy engagement; Use of biotechnology and bio-prospecting for enhanced socio-economic benefits; and Use of natural capital accounting systems and payment for ecosystem services for socio-economic benefits. At the end of the 3-day scientific conference, the following resolutions were reached: -

- 1. Re-examination of the legal and policy frameworks in the wildlife sector and the extent to which they will serve the country into the future: Harmonize policies and should recognizes wildlife as a land use and should guide valuation and utilization of wildlife resources to enhance economic value to land owners and local communities
- 2. Finalization and implementation of the National Wildlife Climate Change Adaptation and Mitigation Strategy. The strategy should undergo a public validation process involving key stakeholders for finalization
- 3. WRTI's mandate to lead the development of a National Wildlife Database be supported and stakeholders to contribute the Integrated Wildlife Database and a Data Sharing Protocol to be developed
- 4. Packaging of scientific findings for policy and decision makers: There is a need for scientific findings to be in a simple and coherent language that communicates to policy and decision makers as well as wildlife conservationists and managers.
- 5. The government of Kenya to be requested to increase research funding from the current 0.8% of the Gross Domestic Product (GDP) to 2% of the GDP per year in conformity with part VII of the ST&I Act, 2013 and a commensurate percentage of the research fund be allocated to research in the wildlife sector, in order to address wildlife research needs, based on its contribution to the GDP.
- 6. One health approach in disease management: A call to strengthen multidisciplinary, multisectoral and multi-institutional approaches to

address wildlife health challenges by embracing a One Health approach.

- 7. Embracing the use of technology in wildlife tracking and monitoring: The need for adoption of innovative technologies in wildlife research.
- Biennial wildlife scientific conference: It was recommended that the conference be held every two (2) years to promote the nexus between wildlife scientists, managers and policy makers to be held biennially with the next conference scheduled for September 2025.
- 9. Establishment of a One-Stop-Shop research permitting process to streamline and expedite the application process, and WRTI to work with the National Commission for Science, Technology and Innovation (NACOSTI) to identify and address bottlenecks.
- 10. The importance of wildlife biodiversity in providing people's livelihoods and contributing to economic growth and the need for researchers to involve local communities in research activities to ensure acceptance and equitable sharing of benefits in line with National and International Instruments (Constitution, WCMA, 2013, Nagoya Protocol, CBD instruments among others).
- 11. Establishing and strengthening collaborations and partnerships: WRTI to initiate multisectoral, multidisciplinary, multi-institutional, local, National and International collaborations and partnerships based on the multidisciplinary nature of wildlife resources.
- 12. WRTI to develop the National Red List for rare, threatened and endangered species in order to guide the review of Schedule Six of the WCMA 2013 with support from the national Kenya Species Specialist Group (KeSSG) that was launched under the auspices of the International Union for Conservation of Nature (IUCN) during the conference.

The findings presented in the conference will feed into the on-going review of the Wildlife Conservation and Management Act 2013.







# Echoes of the Wild: A Scientific Odyssey hosted by WRTI

In the heart of Kenya, at the shores of the serene waters of Lake Naivasha, scientists from around the world gathered for an extraordinary rendezvous—the first ever wildlife scientific conference in the country.

The air buzzed with anticipation as researchers, conservationists, and nature enthusiasts convened at the Lake Naivasha Resort, their shared passion for nature pulsating through every conversation.

The conference kicked off with a captivating keynote address from Dr. Lucy Waruingi from Wildlife Conservation Trust Fund (WCTF), Dr. Ben Okita of Wyss Academy for Science, Dr. David Western from African Conservation Centre, Dr. Emmanuel Nkurunziza from Regional Centre for Mapping of Resources for Development (RCMRD) and Professor Walter Oyawa from National Commission for Science, Technology and Innovation.

The experts' words reverberated throughout the conference hall, igniting a fire of curiosity and commitment to understanding and preserving our wildlife.

During the conference, delegates were treated to an immersive exhibition that showcased the rich tapestry of biodiversity and conservation efforts in the region.

The exhibition space buzzed with excitement as attendees visited the colourful displays and interactive exhibits, each offering a glimpse into the fascinating world of wildlife research and conservation.

At the Wildlife Research and Training Institute exhibition booth, delegates had a chance to explore the Institute's latest research findings and initiatives, inviting attendees to engage in thought-provoking discussions and hands-on activities.

One corner of the exhibition was dedicated to technological innovations in wildlife research, showcasing cutting-edge tools and techniques for tracking and monitoring animal populations. Delegates marvelled at sophisticated GPS collars and camera traps, gaining insights into how modern technology is revolutionising our understanding of animal behaviour and habitat dynamics.

As the day ended, delegates left the exhibition hall feeling inspired and invigorated by the wealth of knowledge and experiences shared during the conference. The exhibition had provided a vibrant backdrop for networking, learning, and fostering new partnerships.

As the sun dipped below the horizon, the spirit of camaraderie continued as participants gathered for a cocktail dinner, where they mingled and exchanged experiences; there was a palpable sense of optimism and determination among the attendees.

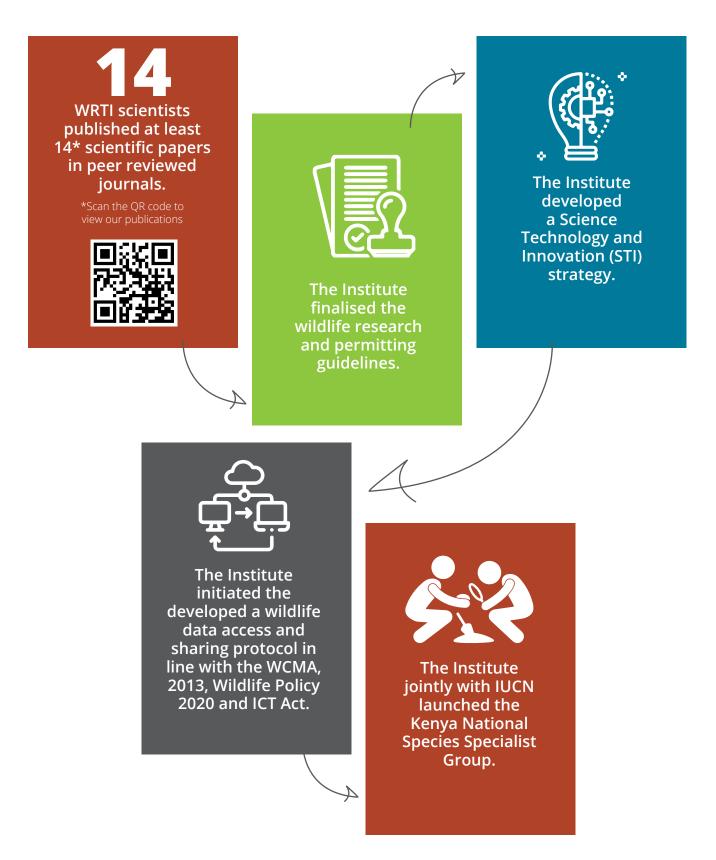
Bonds forged over shared experiences and a mutual love for wildlife and conservation promised to endure long after the event had ended.

Armed with new knowledge and renewed inspiration, delegates departed Lake Naivasha Resort with a collective resolve to continue their vital work in conserving our planet's precious biodiversity.

In the tranquil setting of Lake Naivasha, amidst the calls of wild birds and the rustle of reeds, a new chapter in the ongoing story of wildlife conservation had begun—one fueled by collaboration, passion, and a profound respect for the wonders of the natural world.



# Scientific Publications and Other Major Achievements



# Launch of the National Wildlife Research Agenda

Unveiling Kenya's Wildlife Future: A Landmark Launch at WRTI Headquarters, Naivasha



On May 29, 2023, the Institute launched the National Wildlife Research Agenda (2023–2028). Scientists, conservationists, policymakers, and stakeholders gathered with a shared determination to shape the future of wildlife conservation in Kenya and beyond.

The ceremony commenced with an address by the then Cabinet Secretary for Tourism, Wildlife and Heritage, Hon. Peninah Malonza, who heralded the launch of the National Wildlife Research Agenda as a pivotal moment in Kenya's conservation journey.

WRTI Director/CEO, Dr. Patrick Omondi rallied attendees to harness the momentum generated by the National Wildlife Research Agenda launch and translate it into tangible action on the ground.

The wildlife research agenda will play a critical role in assisting the Institute to generate data and provide scientific evidence for informed decision-making. Through a wildlife sector stakeholder engagement, seven (7) priority thematic areas have been identified and prioritised in the National Research Agenda:

- Wildlife Species Population Dynamics that seeks to assist in better understanding of the status and trends of wildlife populations in the country.
- Wildlife-Habitat Dynamics that seeks to enhance a better understanding of the habitat dynamics and ecological processes.
- 3. Wildlife Health and Population Genetics that seeks to safeguard wildlife, livestock and human health through prevention, early detection, identification and management of wildlife diseases through a One-Health approach.

- 4. Natural Resource Governance and Socio-Economics – that seeks to generate information that will guide the development of standards, methods and tools to assess and strengthen natural resource governance and establish the socio-economic and socio-ecological dimensions of wildlife resource management.
- 5. Promote Bioprospecting that seeks to promote wildlife resources and associated traditional knowledge for optimised benefits.
- 6. Climate Change Challenges that seek to develop early warning systems for wildlife species management and implement mitigation and adaptation measures.
- 7. Wildlife Resource Information Management that seeks to establish an integrated platform for wildlife resources data and information management.

These thematic areas are interdependent and necessary to accomplish the Institute's mission of enhancing a better understanding of the status and trends of wildlife populations in the country.

The launch of the National Wildlife Research Agenda has ignited a spark of hope—a beacon guiding Kenya towards a future where wildlife thrives, ecosystems flourish, and the bonds between humans and nature are strengthened for the benefit of all.

# Towards the 15-Billion Tree Growing Campaign



The 15-billion tree growing campaign is a government flagship programme that supports the African Landscape Restoration Initiative aimed at increasing the national tree cover to 30 percent by the year 2032. The government aims at enhancing efforts to reduce greenhouse emissions, stop and reverse deforestation and restore 5.1 million hectares of deforested and degraded landscapes. The Institute has been at the forefront of supporting and promoting this campaign and joined the rest of the country during the inaugural national tree planting day held on November 13, 2023.

The event took place at the Institute's headquarters and its four field research centres, marking a significant moment jointly inaugurated by Mr. John Chelimo, Secretary of Administration in the State Department for Wildlife, and Dr. Patrick Omondi, Director/CEO of WRTI. It provided a timely platform for the launch of the Naivasha Wildlife Sanctuary Greenline initiative, aimed at establishing a buffer zone by strategically planting indigenous trees along linear boundaries and roads within the conservation zone to enhance the visual appeal and environmental quality.

Throughout the 2023 campaign, a total of 2,820 indigenous tree species were planted along the greenline, with a goal to cover the entire 40 kilometres of the Sanctuary fence. This collaborative effort engaged various partners, including the State Department for Wildlife, Tourism Promotion Fund, Kenya Institute of Public Policy Research and Analysis, County Administration, Automobile Association of Kenya, and the local Naivasha community. The Institute is among the government agencies spearheading the propagation of indigenous tree seedlings for the restoration of degraded protected areas. The national target is to propagate 50 million trees by 2032. To achieve this, a network of tree nurseries has been established in 13 WRTI field research centres and propagation works have commenced with seed funding from internal funds and partner support.

The Institute received 1.4 tonnes of indigenous tree seedlings from the Kenya Forestry Research Institute (KEFRI). These seedlings were distributed to the headquarters in Naivasha and field centres in Nyeri, Nakuru, Kitale, Tsavo, Amboseli, Nairobi, Ol-Donyo Sabuk, Tana River, Shimba Hills, Ruma National Park and Meru National Park. In each of the following stations, seedling propagation is ongoing and it is envisioned that the existing propagation capacity will be accelerated to achieve a target of 1–2 million seedlings per year.

The stations are;

Tree nursery at the Institute's headquarters in Naivasha
 High altitude tree nursery at Nyeri Centre
 Tree nursery and greenHouse in Tsavo



# Interventions and Research Breakthroughs



# The strengthening of the Tsavo IPZs and the urgent need for destocking of Ngulia Rhino Sanctuary

#### By: Crispin Ngesa, Cedric Khayale & Fred Omengo

The Tsavo West Intensive Protection Zone (IPZ) was established in 2006 within a rich habitat of the Ngulia and Rhino valleys of Tsavo National Park. The aim was to create an area, where a large population of black rhinos can be accommodated, with a potential of 300 lack rhinos from overstocked lowland sanctuaries.

Eight (8) rhinos were translocated from Ngulia Rhino Sanctuary and a further ten (10) animals translocated from Lake Nakuru National Park into the IPZ in 2008. The translocated individuals have been performing and now, the IPZ has a population of 36 rhinos against a vast about 2,000 km2 space.

On the contrary, a majority of the rhino sanctuaries in Kenya are overstocked with over 250 surplus rhinos, and a further 260 rhinos are expected from population growth by 2026 if growth rates are maintained at 5% p.a. (Figure R 2). Though the rhino population has performed well over the last decade, the success story could easily be reversed if the additional individuals are not offloaded into a more expansive space. It is estimated that space is urgently required for at least 500 rhinos in order to meet Kenya's anticipated black rhino population growth. The Tsavo IPZ offers this opportunity – with minimal investment needed to secure this critical habitat for black rhinos. One of the most critical sanctuaries within the vicinity is the Ngulia Rhino Sanctuary in the central part of Tsavo West National Park. The sanctuary covers an area of 92 km2 and is completely enclosed with a current rhino population of

is completely enclosed with a current rhino population of 132 black rhinos against an ecological carrying capacity (ECC) of 55 rhinos. The sanctuary has been one of the most successful areas for protection and breeding of black rhinos in Africa over the last 25 years and has succeeded in reestablishing a productive breeding nucleus of rhinos with very considerable potential for further expansion into the wider Tsavo West IPZ.

Ngulia Rhino Sanctuary (and other sanctuaries with rhino numbers above the ECC) face an ecological catastrophe if the rhino population is not reduced. With the recent developments of recurring prolonged drought, there is the possibility of a cessation of breeding and/or a population crash. Due to the overpopulation, the body condition has declined to an average of 3 (Figure R3).

Previous initiatives to reduce browsing pressure were done by removal of 255 elephants in 2009, along with more than 300 buffaloes and the translocation of 8 rhinos into the IPZ. Several assessments and studies to prepare the IPZ to receive more rhinos have been undertaken and adopted for fundraising by KWS, WRTI and partners to strengthen the Tsavo West IPZ rhino range.

WRTI recommends the following measures:

- Immediate destocking of the Ngulia Rhino Sanctuary.
- A further immediate reduction of elephants, giraffes and buffaloes within the Ngulia Rhino Sanctuary.
- Reinforcement of the fence to secure the IPZ, especially the west and southwest sections of the IPZ.
- Improvement of water supplementation in the IPZ.
- Updated browse availability and carrying capacity assessment of the IPZ.
- Continuous habitat monitoring of both the sanctuary and the IPZ.

# **2** Lion Census in Tsavo and Amboseli Ecosystems



#### By: F. Lala and Peter Kimani

The Tsavo Research Centre spearheaded a comprehensive lion census in the Tsavo and Amboseli ecosystems. This crucial undertaking was a collaborative initiative supported by our partners such as WWF, Lion Recovery Fund, Tsavo Trust, and Lion Guardians, and was aimed at providing a comprehensive understanding of lion populations in these ecologically significant landscapes.

The primary objectives of the survey were to:

- Estimate the number of lions over the age of one year.
- Gauge the occupancy of all large carnivores.
- Evaluate population trends since the last census.
- Build local capacity for the long-term monitoring of lion populations.

The team developed a comprehensive database of individual lions in the ecosystem. The census lays the foundation for understanding lion populations and their sustainable management for conflict reduction. Partial results indicate that a high birth rate was observed among lion prides in the Amboseli ecosystem with the majority of lion prides having cubs below one year. However, the recorded number of individuals was lower, with approximately 25 lions aged over 1 year and 15 cubs under 1 year old observed. This is a notable decrease compared to the same period in 2022 when 70 lions were observed across all age groups, comprising 50 lions over 1 year old and 20 cubs under 1 year old. These fluctuations may be attributed to seasonality, as much of the prey base was found outside the park during the 2023 census.

Continuous and long-term and consistent monitoring is required to truly understand lion population dynamics and trends and habitat utilisation during both the dry and wet seasons in the Amboseli National Park. Further, resident lions within the Amboseli National Park should be collared to monitor their movement outside the park, to mitigate human-lion conflict.

### **3** The Population Status and Trends of The Savanna Elephant In The Loita Forest, Narok County

#### By: Ndambuki et al. (Survey funded by WWF Kenya)

Loita Forest is found in Narok County, between the Nguruman – Magadi escarpment and the Maasai Mara National Game Reserve. It is an important elephant migratory corridor and a critical refuge for wildlife species including the African elephant (Loxodonta African), giant pangolin (Smutsia gigantea), leopard (Panthera pardus) and African wild dog (Lycaon pictus).

The survey was carried out in February 2023 with the objectives of determining the wet elephant population estimates in the Loita Forest, documenting other wild animal species in the forest, establishing the extent and distribution of anthropogenic activities, and providing data and information to be used for enhancing protection of the forest.



### Monitoring the Population Status and Structure of Rare Antelope Endemic to Shimba Hills National Reserve, Kenya



#### By: Benard Ochieng and Mohammed Omar

The Kenyan sable antelope (Hippotragus niger roosevelti), locally known as Shambi is a key wildlife species along the coast of Kenya. The name Shimba is derived from the term Shambi in the local Digo community dialect, which means sable antelope as it is commonly referred. Therefore, Shimba Hills means the hills of the sable antelope because the species used to dominate this unique coastal forest during the colonial period. However, the sable population has considerably declined over the years, a phenomenon that has restricted its presence exclusively to Shimba Hills National Reserve (SHNR). The species is therefore on the priority list of nationally endangered species in Kenya even though the IUCN Red List of Threatened Species recognises it as of "least concern". Consequently, the Kenya Wildlife Service (KWS) in collaboration with stakeholders has developed a National Population Recovery and Action Plan for the species to address its conservation challenges and spearhead its population recovery.

WRTI has been monitoring the sable antelope through weekly routine surveillance and seasonal counts using vehicles and on-foot to establish their distribution, population size and structure.

A total of 36 sable antelopes have been uniquely identified within the population, with the possibility of identifying additional individuals. The observed female-biased sex ratio suggests potential breeding opportunities within the population. To further enhance our understanding of the species and its ecological dynamics, we recommend and aim to employ various ecological monitoring methods. This includes the utilization of modern techniques such as camera traps, GSM collars, and drones to gather comprehensive ecological information.

# **5** Efforts towards saving the remaining Roan Antelopes in Kenya

#### By: Vasco Nyaga and Benard Ogwoka

The roan antelope (Hipotragus equinus), formerly found across various regions in Eastern, Central, Southern, and Western African countries, has undergone a substantial decline over the past four decades. This decline is primarily attributed to factors such as poaching and land conversion for agricultural and developmental purposes. Historically, the roan antelope inhabited territories spanning from southern Kenya, northward to Mt Elgon and the Cherangani Hills, as well as around Thika/ Kitui and an area east of the Chyulu Hills. The species has experienced a persistent decrease, with local extinctions observed in all its former ranges except for the Lambwe Valley within Ruma National Park. The decline of the roan population in this specific region has presented a significant conservation challenge for both national and global stakeholders concerned with the species' management and preservation.

To mitigate some of the causes for the decline of the species, in the year 2021, a predator-proof sanctuary covering an expanse of 5.6 square kilometres was established in Ruma National Park, initially housing a population of 12 roan antelopes. In January 2022, the sanctuary underwent division into two distinct sections through the construction of a 1.8-kilometre long dual fence, effectively segregating an area measuring 1.7 square kilometres and another measuring 4.46 square kilometres.

Concerted efforts have been undertaken to bolster the

declining roan antelope population by supplementing it with individuals from Tanzania. A designated area spanning 1.7 square kilometres has been allocated to accommodate translocated roan antelope from Tanzania, while the indigenous Kenyan population occupies a separate section measuring 4.46 square kilometres. At present, the sanctuary hosts a total of 18 roan antelopes, comprising 16 individuals from the resident population and 2 individuals that were translocated from Tanzania. Continuous monitoring efforts are concentrated on evaluating the habitat condition and the extent to which the newly introduced population has adapted to its environment. This includes drone surveillance and targeted mowing of specific areas. Additionally, ongoing monitoring aims to identify potential diseases and disease vectors that may impact the population's performance. Genetic studies are also being conducted to assess population structure and genetic diversity. Furthermore, an extensive tsetse monitoring programme is in place to mitigate the prevalence of trypanosomiasis disease.

Measures are continuously being explored and implemented to mitigate predation risks and safeguard the roan antelope population within the sanctuary. The predator-proof sanctuary has further given an opportunity for more dedicated research to understand the ecology of the species and explore an intensive breeding programme that can produce a founder population for restocking of former range. 6 Rothschild's giraffe monitoring and impacts of wire snares on the Giraffes of Mwea National Reserve



#### By: Vasco Nyaga and Peter Kimani

Mwea National Reserve is one of the protected areas that is home to the endangered Rothschild's giraffe also called the Nubian giraffe. Nubian giraffes are estimated at 3,022 individuals in Africa with 723 in Kenya and are listed as 'Critically Endangered' on the IUCN Red List of Species. A survey undertaken in 2006, 2017, and 2021, estimated the Nubian giraffe numbers in Mwea National Reserve at 11, 25, and 79, respectively. This indicates a steady population growth.

Despite a growing giraffe population over time, persistent external challenges like disease (Kaitho et al., 2013), and human-related threats, especially snaring, continue to impact giraffe numbers (KWS veterinary records).

In 2023, WRTI received a small grant from GCF to continue monitoring the giraffe population with an objective of:

- Determining the population of Nubian giraffe in Mwea National Reserve.
- Mapping out snare hotspots and susceptibility of giraffe snaring.
- Comparing giraffe and wire snare density distribution in Mwea National Reserve.
- Raise awareness on the effects of snares in protected areas to local community members.

A survey undertaken in January and September 2023 counted a total of 54 giraffes across 9 sightings. The population's composition was 38 females, 15 males, and a single individual whose sex remained undetermined. Within the cohort of 38 females, 9 were classified as sub-adults, 5 as young individuals, while 1 individual's age could not be ascertained.

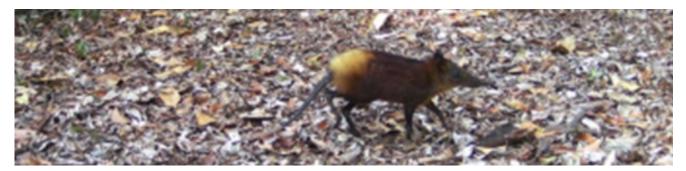
The study encountered a total of 379 wire snares which equates to a snare density of 8.61 snares per square kilometre (N=379). Notably, a substantial 98.2% of these snares (N=372), were evidently designed with the intent to capture small- and medium-sized antelope species inhabiting the national reserve, a minority of 1.85% of the snares (N=7) were tailored for the capture of larger mammals within the national reserve.

In conclusion, there is a 1:2 male to female ratio in the giraffe population in Mwea National Reserve indicating a notable prevalence of females within the population.

There is a pronounced prevalence of clustering especially on the northwestern part of the reserve with clusters of upto 24 giraffes being observed during the survey. Majority of the snares targetted smaller angulates with giraffes being opportunistic targets. Conservation education and awareness efforts should prioritise the southeastern side of the park with the dominance of snares in these sections.

# Camera Trap Survey Of The Mammal Community In Arabuko-Sokoke Forest Reserve

By: Mlati Ochieng, Markéta Antonínová, Mohammed Omar, and Lynn Njuguna



The survey utilises camera traps to survey threatened mammal species and estimate habitat occupancy within the Arabuko-Sokoke Forest. The Arabuko-Sokoke Forest (ASF, 416km2) is the largest single block of coastal forest remaining in East Africa and a global biodiversity hotspot that is home to several unique species and endemism. The objective was to update the list of mammal species of ASF and evaluate their abundance and diversity in the five different forest types that constitute the Arabuko-Sokoke Forest. We assessed their spatial distribution and compared with the 2010 and 2015 surveys by Stoke et al. 2016.

Based on 3,094 independent images recorded at 98 locations, we identified 29 mammal species, including four (4) classified as threatened according to the IUCN: Aders' Duiker (Cephalophus adersi, Vulnerable), African Savanna Elephant (Loxodonta Africana, Endangered), Golden-rumped Sengi (Rhynchocyon chrysopygus, Endangered), Sokoke dog mongoose (Bdeogale omnivore, Vulnerable). Suni was the most recorded mammal with a Relative Abundance Index (RAI) of 22.45 and Naïve Occupancy of 0.82. Of the five (5) distinct forest vegetation types in Arabuko-Sokoke Forest, the Cynomentra forest recorded 28 species, Brachystegia 21 species, mixed forest 19 species and other forest 12 species and mixed thicket three species of mammals.

Compared to a similar survey done in 2015, with the data from the same camera stations, the Aders' duiker naïve occupancy has increased from 0.04545 in 2015 to 0.1818 in 2022. On the other hand, the RAI for Golden-rumped Sengi and Sokoke dog mongoose has decreased significantly over the same duration (2015–2022). The 2-year dataset will be analysed in more detail to obtain deeper insight into the ecology of some rare and endangered mammals of Arabuko-Sokoke Forest.

# **B** Lion Scat Analysis in the Tsavo lab

#### By: F. Lala and P. Kimani

The intricate web of ecological interactions within a landscape often hinges on the role of predators and their impact on prey species. Recognising the cascading effects of predation across ecological communities, the Institute conducted a comprehensive Lion Scat Analysis for the Tsavo East National Park, delving into the dietary preferences of these apex predators. By examining the contents of lion scat, we gain valuable insights into the predator's diet, shedding light on optimal foraging patterns and the potential ramifications for endangered prey species such as the hirola and the Grevy's zebra.

The findings from the Lion Scat Analysis represent a pivotal contribution to the broader scope of ecological research and wildlife conservation. By unraveling the intricacies of these ecological relationships, the Institute strives to foster conservation practices that not only preserve individual species but also uphold the delicate balance of the entire ecosystem.



### **9** Veterinary science and laboratories ongoing studies

By: F. Gakuya et al.

The Veterinary Science and Laboratories department has continued to undertake a number of research activities throughout 2023.

Conservation Genetics of the Eastern Black Rhinoceros in Kenya

#### **Project Overview**

The project, "Conservation Genetics of the Eastern Black Rhinoceros in Kenya", focuses on utilising a panel of thirteen (13) microsatellite markers to assess population structure, genetic diversity, and relatedness in five (5) Kenyan conservation areas. The initial phase involved analysing data from 125 black rhinos, and a comprehensive report has been prepared that will inform policy and management of the species.

#### **Key Achievements**

- Successfully collected and analysed genetic data from 125 black rhinos across five (5) Kenyan conservation areas.
- Developed a detailed report providing insights into population structure and genetic diversity.

#### **Current Status**

The project is at a crucial juncture, and further analysis is essential to deepen our understanding of the genetic dynamics within the eastern black rhinoceros' population in Kenya.

#### **Ongoing Activities**

- Fundraising: Actively seeking funds to support additional analyses and expand the scope of the project. Financial support is vital to ensure the continuation and completion of the study.
- Grant application: A proposal has been prepared, outlining the project's objectives and seeking grant support. The grant, if secured, will enhance the project's capabilities and contribute to its success.

#### **Next Steps**

- Further analysis: Pending successful fundraising, the team plans to conduct additional analyses, which will provide a more comprehensive understanding of the genetic factors influencing the eastern black rhino population.
- A manuscript will be prepared for publication in a peerreviewed journal.

#### **Challenges and Opportunities**

Funding constraints: The project faces challenges in securing adequate funds for the desired scale of analysis and research activities.

Collaborative potential: Collaboration with Roslin Institute presents an exciting opportunity to enhance the project's impact and broaden its scope.

#### Conclusion

The project has made significant strides in its initial phase, and the comprehensive report submitted to WRTI management sets the foundation for informed conservation strategies. The research team remains dedicated to securing the necessary resources to continue the project, further contributing to the conservation of the eastern black rhinoceros in Kenya.

### A Survey of Possible Vectors of Filariasis in Selected Rhino Sanctuaries

#### **Project Overview**

The project aims to conduct a survey of possible vectors of filariasis within selected rhino sanctuaries. The key objectives include trapping and identifying potential Stephanofilaria vector flies, carrying out morphological identification of vectors, and performing molecular identification of filarial parasites within the vectors.

#### **Key Achievements**

- Fly collection: Samples of potential vector flies have been successfully collected from one of the targeted rhino sanctuaries during the previous quarter.
- Morphological identification: The collected fly samples have been subjected to morphological identification, leading to the identification of a list of vector species.
- Initiation of molecular analysis: Procurement of reagents for the molecular analysis of filarial parasites within the vectors has been initiated.

#### **Current Status**

The project is progressing well, with the initial phase of fly collection and morphological identification completed successfully.

#### **Ongoing Activities**

- Procurement finalisation: The team is in the process of finalising the procurement of necessary reagents for the molecular analysis phase.
- Molecular analysis preparation: Plans are underway for the DNA extraction of gut and salivary gland samples from the collected flies, a crucial step for molecular identification.

#### **Next Steps**

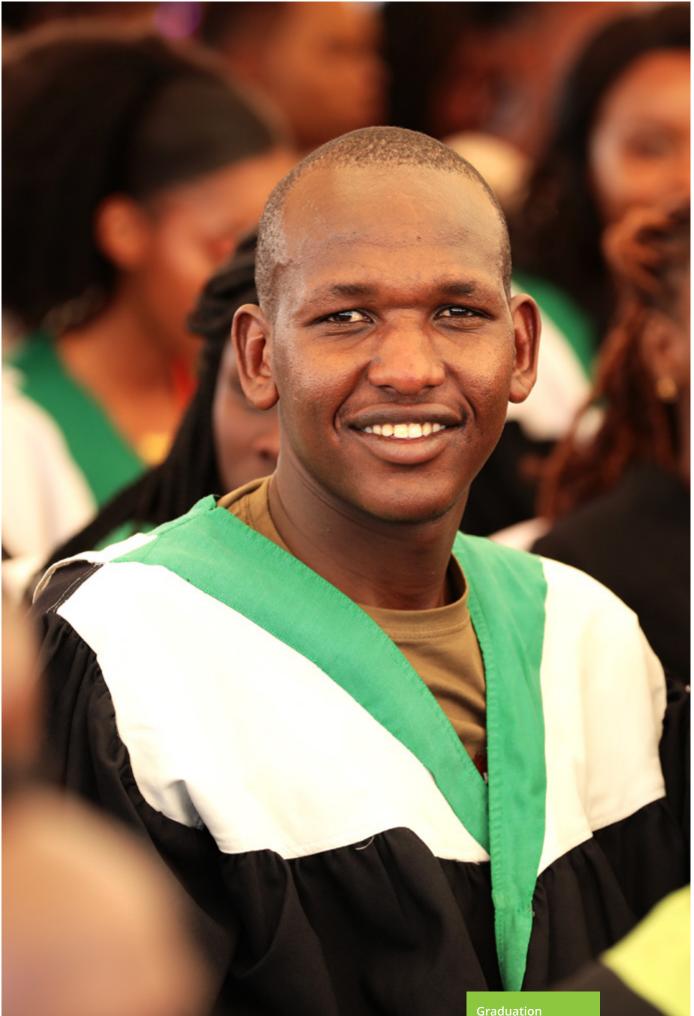
- Finalise procurement: Complete the procurement process to ensure all required reagents are available for the upcoming molecular analysis.
- Molecular analysis: Proceed with the DNA extraction process from the gut and salivary glands of the collected flies, preparing for subsequent molecular identification of filarial parasites.
- Fly collection in the rest of the targeted sanctuaries.

#### Opportunities

Scientific impact: Successful molecular identification will provide valuable insights into the presence of filarial parasites and potential vectors within rhino sanctuaries, contributing to both animal (wildlife and livestock) and public health.

#### Conclusion

The project has achieved significant milestones in the collection and morphological identification of potential vector flies. As the team progresses to the molecular analysis phase, the findings will enhance our understanding of filariasis dynamics in rhino sanctuaries and contribute to informed conservation and health management strategies.



Graduation Ceremony in 2023





# Training for Excellence



# **21st Graduation Ceremony**



The Institute held its 21st graduation ceremony on December 1, 2023, where a total of 376 trainees were awarded diplomas and certificates.

The ceremony was presided over by the Cabinet Secretary, Ministry of Tourism and Wildlife, Dr. Alfred Mutua. Also present were the Principal Secretary, State Department for Tourism, Mr. John Ololtuaa, the Board of the Institute led by the Chairman, Dr. David Nkedianye, the Director/CEO – Dr. Patrick Omondi, former principals and conservation partners, among others.

The speech by the Cabinet Secretary, Ministry of Tourism and Wildlife, Dr. Alfred Mutua, was a recitation of the famous poem by Max Ehrmann, Desiderata, to encourage the graduates. The timeless words of the poem emphasized the importance of hardwork, discipline, and appreciation of life.

The CEO/Director, Dr. Patrick Omondi, highlighted key achievements of the Institute in the ending year. He noted the important role of the Institute in offering competence-



based programmes to equip youth with skills in alignment to the Bottom-Up Economic Transformation agenda (BETA). He appreciated all graduates for their discipline and excellent performance.

During the ceremony, graduates who had shown exemplary performance in each programme were awarded by various sponsors including the former principals, African Wildlife Foundation, Kenya Wildlife Service, Kenya Association of Women in Tourism, Lake Naivasha Resort, and WRTI-Alumni. The culmination of the award ceremony was an offer of job opportunities to four students who emerged best overall in various disciplines.





Program/Grade	Total
Diploma in Environmental Management	36
Diploma in Wildlife Management	120
Diploma in Fisheries and Aquatic Sciences	52
Diploma in Tourism and Hospitality Management	104
Craft Certificate in Aquaculture	6
Craft Certificate in Community Wildlife Management	23
Craft Certificate in Nature Interpretation and Tour Admin-istration	35
TOTAL	376

### Best performing students of 2023



Gikonyo James Njihia- Best student Diploma in Wildlife Management



Abuor Lorine Akoth - Best student Diploma in Tourism management



Njuguna Edwin Muigai- Best student in Diploma in Envioronmental Management



*Mohamed Abdiaziz- Best student Certificate in Aquaculture* 



Nonkayiok Neilang Wilson - Best Student Certificate In Nature Interpretation and Tour Administration



Akida Rukia Athman- Best student Diploma In Fisheries and Aquatic Sciences



Babuhija Hajji Ramadhan - Best Student Certificate in Wildlife Management

# Work Study Programme

### A Catalyst for sustainable education



Economic challenges in the recent past have taken a toll on many training institutions hindering access to quality education among young people and affecting achievement of educational goals. This has necessitated a rethinking of the Institute's education financing model and establishment of a social-welfare approach to support needy students.

The Institute recently made a bold move and developed a scholarships policy and work-study programme with the aim of easing financial challenges among needy students, an initiative that welcomed and supported by different partners.

The move was informed by limited financial support opportunities available to the students, and an upsurge of reported cases of financial challenges among students causing academic high drop-out rates

The work-study programme officially commenced in November 2023 and has received overwhelming support among the students.

The first call for applicants to the programme received 96 applications. After a rigorous vetting process, 15 were

selected and engaged in various

general maintenance duties during the preparations for the Graduation Ceremony.

The Work-Study Programme at WRTI will offer a structured framework for students and researchers to engage in hands-on learning experiences alongside their academic curriculum.

Trainees will have the opportunity to work on ongoing research projects, assist in fieldwork expeditions, and contribute to conservation efforts under the guidance of experienced professionals.

Recognizing the diverse commitments of students, the programme will offer flexible scheduling options, allowing students to balance their academic workload with practical training opportunities.

The Student Affairs Department plans to start the implementation of a scholarships programme in the coming year.

To support this initiative, please get in touch with us at **training@wrti.go.ke** 

# **Training Needs Assessment**

In 2023, the Institute initiated a Training Needs Assessment (TNA) for the wildlife sector in Kenya. The activity is expected to culminate in a final report on the national wildlife training agenda. The Institute will use this report to develop and implement a market-driven training regime, including modules and curricula to facilitate the development of learning programmes.

It is a participatory process involving diverse stakeholders in the wildlife sector and is currently awaiting stakeholder's validation.

The institute will be implementing the Training Needs Assessment for the next ten years. This will involve the review of existing curriculum and develop new courses. Key highlights include:

- Established partnerships and collaboration with higher institutions of learning and industry stakeholders
- Introduce virtual and distance learning for tailor made courses
- Diversity training program
- Increase student enrollment
- Increase training facilities and field training activities to enhance practical experience.



# Corporate Support Services



# **Projects Undertaken in 2023**

The Institute received funding from the Tourism Promotion Fund (TPF) that was utilised in the construction and rehabilitation of eight facilities

Rehabilitation of fish ponds and aquarium at the Annex (Hippo campsite)



The fishponds and aquarium at the Inland Waters and Wetlands Research Centre offer a platform for the demonstration of fish farming to communities and students and for propagation of fingerlings for endangered species.

#### Construction of the main entrance gate (Game Farm)



Located along the Nairobi–Nakuru highway, the Naivasha Wildlife Sanctuary offers an unforgettable escape into nature, where visitors can immerse themselves in the wonders of the African bush while enjoying a range of thrilling activities. The sanctuary offers exhilarating cycling expeditions, game drives, picnics and nature walks through rugged terrain and scenic trails.

#### The refurbished Ole-Sisiina Hall



The refurbished Ole-Sisiina Hall hosts conference guests. The Institute takes pride in offering fully equipped conference halls set against the backdrop of pristine wilderness.

Renovation and refurbishment of Conference room (Ngiri hall) and ablution block at the headquarters



CS Ministry of Tourism and Wildlife, Dr. Alfred Mutua during the official launch of the rehabilitated conference facility – Ngiri hall on October 24, 2023. Grading, murraming and compaction of the road to the lake and construction of the observation deck



The road will ease access to the facilities and the deck will enable wildlife viewing.

### Construction of 8 strands electric fence at the Game farm (12 km)



This will enhance securing and mitigating against human–wildlife conflict.

#### Refurbishment of the guest house



CS Ministry of Tourism and Wildlife, Dr. Alfred Mutua officially opens the refurbished Guest House, which is a three-bedroom house located at the Institute's headquarters.

Renovation and refurbishment of the Hippo campsite including construction of four new gazebos and renovation of two existing gazebos



Nestled amidst the lush greenery and breathtaking landscapes next to Lake Naivasha, lies a hidden gem – the Hippo Campsite. Located along the Moi South Lake Road, it is an immersive experience in nature's embrace where guests can opt for cozy tents nestled beneath towering trees promising a comfortable stay amidst the wilderness.



#### **INTERNALLY FUNDED PROJECTS**

The Institute constructed a prefabricated office block with eighteen (18) offices and rehabilitated seven (7) staff residential houses. The projects have partially addressed the office deficit and improved staff working environment.

# **Digitalisation of Services**

### In compliance with the Government's directive, the Institute successfully onboarded all its 21 "citizenfacing services" with all revenue being channeled through the e-Citizen payment platform.

The onboarding and digitalisation have played a pivotal role in optimising financial processes and fostering overall organisational growth by streamlining financial processes, real-time transaction processing, and ensuring the alignment of different departmental payment functions on one platform.

In addition to embracing the government's directive on digitalisation of services, the Institute has embraced the Enterprise Resource Planning (ERP) system in finance processes, supply chain management, admissions, enrollment, class attendance and examinations. The ERP solution is a game changer leading to the improvement of service delivery at the Institute. Before the ERP implementation, the Institute experienced challenges of inefficient workflow, errors in payments and reconciliation, double entries, and a tedious students payment process.

Overall digitalisation has improved customer satisfaction; trainees can conveniently pay fees and accommodation via their student portals, and apply and conveniently acquire admission letters from the applications portal (applications. wrti.go.ke); and conferencing guests are invoiced in realtime.

Wildlife Research and Traini	ng Institute Online Services Portal		Home Website Stude	nts Portal Application/Admissions Portal
	WILDLIFE RESEARCH 6 TRAINING D TRAINING Discour Begind			
A PARAM	Previous Receipts	d that you login via ECitizen below	and should be	- A State
	Short courses	Research Permits	Cafeteria Services	
	Select Service	Select Service	Select Service	
and the set	Conferencing Select Service	Research Consultancy Steet Service	Guest Accommodation	A State
	Camping	Entry Charges	Museum Fees	

In August 2023, the Institute revamped its website (www.wrti.go.ke) aimed at modernising the online presence, and user experience as well as aligning it with the current branding strategy. The website has a modern visually appealing responsive design.



# **Marketing Activities in 2023**

To showcase its commitment to wildlife research and training, the Institute embarked on a vibrant journey of participating in events and exhibitions to engage with external stakeholders.

The Magical Kenya Tembo Naming Festival (MKTNF) and World Wildlife Day



The Institute was honoured to participate in the Magical Kenya Tembo Naming Festival (MKTNF) held from March 2–3, 2023 at the Amboseli National Park. The event, which attracted different stakeholders, is an innovative sustainability mechanism to champion elephant conservation in Kenya. It offered individuals and organisations an opportunity to support conservation efforts. The goal of the festival was to secure a future for elephants and their habitats in peaceful co-existence with humans while providing benefits and for posterity.

# It was a 'rally in the wild' during the 2023 WRC Safari Rally



President William Ruto flags off a rally vehicle during the 2023 WRC Safari Rally held at the Institute on June 22–25, 2023. Also present were former Cabinet Secretary for Tourism and Wildlife, Peninah Malonza, PS Silvia Museiya, Board Chair Dr. David Nkedianye and CEO Dr. Patrick Omondi.

WRTI showcases at the Africa Climate Summit



The Institute exhibited at the Africa Climate Summit and Africa Climate Week held from between September 4 – 8, 2023 at the Kenyatta International Convention Centre. The exhibition provided an opportunity for participants of the Africa Climate Summit and Africa Climate Week to learn about the impacts of climate change and how nations can adopt practical solutions to the adverse effects of climate change while focusing on delivering innovative green growth and climate finance solutions for Africa and the world.

WRTI was honoured to interact with participants from the globe, other exhibitors, representatives from government agencies, stakeholders and the general public for information sharing and learning from each other's experiences.

#### A 'magical experience' at the Magical Kenya Travel Expo

The Institute actively engaged in the Magical Kenya Travel Expo (MKTE) and the 3rd Edition East Africa Regional Tourism Expo (EARTE) through an exhibition guided by the theme 'Tourism for greener growth'. The Magical Kenya Travel Expo (MKTE) stands as Kenya's premier annual travel trade fair, attracting tourism stakeholders, partners, and media from key markets across Europe, Africa, Asia, and the Americas. This platform fosters meaningful engagements and interactions among participants, facilitating discussions on various tourism-related topics. The Institute's participation enabled it to showcase its initiatives and offerings to a diverse audience, with attendees expressing specific interests and inquiries.

# Partnerships and Collaborations

The Institute initiated several collaborations and partnerships to bolster its operations and functions. Majority of the collaborations focused on enhancing research activities on endangered species and habitats, as well as capacity building and training between the Institute and its partners.



KWS AND WRTI COLLABORATION

WRTI AND INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCE (IUCN)





WRTI AND USAID



WRTI AND TOURISM PROMOTION FUND



Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

COLLABORATION BETWEEN WRTI AND DEUTSCHE GESELLSCHAFT FÜR INTERNATIONALE ZUSAMMENARBEIT (GIZ)/ABS INITIATIVE.



WRTI AND UNIVERSITY OF GRONINGEN, THE NETHERLANDS, NAROK COUNTY GOVERNMENT, MAASAI MARA UNIVERSITY AND MAASAI MARA WILDLIFE CONSERVANCIES ASSOCIATION



WRTI AND TSAVO TRUST (TT)



WRTI AND INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE (ILRI)



WRTI AND AMBOSELI TRUST FOR ELEPHANTS (ATE)





WRTI AND WILDLIFE HEALTH BRIDGE (WHB)



WRTI and Institute of Primate Research – National Museums of Kenya (IPR-NMK)



WRTI AND MARULA ESTATE LIMITED (MARULA)



WRTI and Pwani University (PU)



Image: Control of the second stateSummary of<br/>Audited Financial<br/>Reports<br/>(2021–2022)



### 13. Statement Of Financial Performance For The Year Ended 30 June 2022

DETAILS	Notes	2021-2022	
	Notes	KShs	
Revenue from non-exchange transactions			
Transfers from Other Government Entities	6 (a)	32,000,000	
Public contributions and donations	7	19,574,407	
Licenses, Fees, and permits	8	137,046,211	
		188,620,618	
Revenue from exchange transactions			
Sale of goods	9	2,201,310	
Total revenue		190,821,928	
Expenses			
Use of goods and services	10	91,249,131	
Employee costs	11		
Board Expenses	12	7,617,028	
Depreciation and amortization expense	13	1,404,287	
Repairs and maintenance	14	4,949,526	
Contracted services	15	2,139,212	
Provision for Auditing Services	15(b)	1,000,000	
Total expenses		108,359,183	
Other gains/(losses)		12231-9	
Surplus before tax		82,462,745	
Surplus/(deficit) for the period		82,462,745	
Net Surplus for the period		82,462,745	

### 14. Statement Of Financial Position As At 30 June 2022

DETAILS		2021-2022 KShs	
DETAILS	Notes		
Assets			
Current assets			
Cash and cash equivalents	16	77,796,117	
Current portion of receivables from exchange transactions	18(a)	32,674,106	
Inventories	19	2,935,677	
Total Current Assets		113,405,900	
Non-current assets			
Property, plant and equipment	23	33,374,888	
Intangible assets	24	9,051,319	
Total Non-current assets		42,426,207	
Total assets ·		155,832,106	
Liabilities			
Current liabilities			
Trade and other payables	20	11,735,411	
Total Current Liabilities		11,735,411	
Non-current Liabilities			
Total Non-Current Liabilities			
Total Liabilities		11,735,411	
Surplus (Deficit) for the Year		82,462,745	
Capital Fund:			
- Transfer from KWS for Assets ('Balance of Delinking)	6 (b)	14,722,500	
- Transfer from KWS for ERP Acquisition	6 (b)	8,739,673	
Funds Received from TPF	6 (b)	36,150,380	
Inventory inherited from KWS	19	2,021,397	
Total net Assets		144,096,695	
Total net assets and liabilities		155,832,106	

### 15. Statement Of Changes in Net Assets for the year Ended 30 June 2022

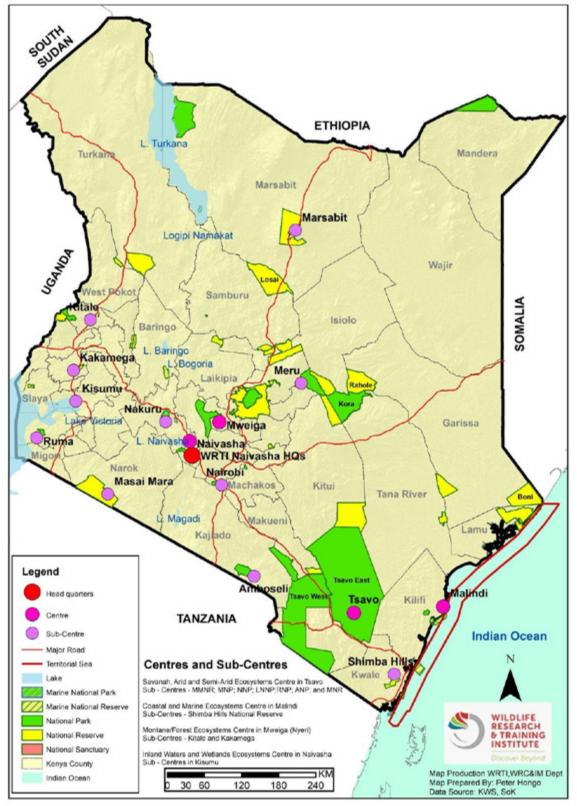
	Revaluati on reserve	Fair value adjustme nt reserve	Retained earnings	Capital/Devel opment Grants/Fund	Total
	Kshs	Kshs	Kshs	Kshs	Kshs
As at July 1, 2020					-
As at June 30, 2021	-	-		-	
As at July 1, 2021		-		-	-
Inventory Inherited from KWS	-		-	2,021,397.03	2,021,397.03
Surplus(Deficit) for the Year		-	82,462,744.68		82,462,744.68
Capital/development grants received during the year		-		59,612,553.15	59,612,553.15
As at June 30, 2022			82,462,744.68	61,633,950.18	144,096,694.86

DETAILS	Notes	2021-2022 KShs	
DETAILS	Notes		
Cash flows from operating activities			
Receipts			
Government grants and subsidies (Gok)	6 (a)	32,000,000	
Transfer from KWS & TPF	6 (b)	59,612,55	
Public contributions and donations	7	19,574,40	
Licenses, Fees and permits	8	137,046,21	
Sale of goods	9	2,201,310	
Total Receipts		250,434,48	
Payments			
Goods and services	10	91,249,13	
Compensation of employees	11		
Board Expenses	12	7,617,028	
Repairs & Maintenance	14	4,949,520	
Contracted Services	15	2,139,212	
Provision for Auditing Services	15(b)	1,000,000	
Total Payments		106,954,897	
Working Capital adjustments			
Increase in inventory		(914,280	
Increase in receivables		(32,674,106	
Increase in payables		11,735,41	
Total Working Capital adjustments		(21,852,974)	
Net cash flows from operating activities	22	121,626,61	
Cash flows from investing activities			
Purchase of PPE and intangible assets	23	43,830,493	
Net cash flows used in investing activities		43,830,493	
Cash flows from financing activities			
Net cash flows used in financing activities			
Net increase/(decrease) in cash and cash equivalents		77,796,117	
Cash and cash equivalents at period Start	16		
Cash and cash equivalents at Period end	77,796,117		

### 16. Statement Of Cashflow for the year Ended 30 June 2022

# **Field Operational Centres**

WILDLIFE RESEARCH AND TRAINING INSTITUTE'S HEADQUARTERS, CENTRES AND SUB-CENTRES





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