

THE RACE TOWARDS SUSTAINABLE CONSERVATION



INSIDE:

3

NEWS

Projects reduce
human-wildlife conflict

5

ASK THE EXPERTS

Gold mine lying in
bioprospecting

10

ANIMAL OF THE MONTH

The Martial Eagle

12

CONSERVATION

Wetlands are core to
the environment

We know where we are going



One day Alice came to a fork in the road and saw a Cheshire cat in a tree.

"Which road do I take?" she asked.

His response was a question: "Where do you want to go?"

"I don't know," Alice answered.

*"Then," said the cat, "it doesn't matter."
Lewis Carroll, Alice in Wonderland*

The tragedy of life is not having a vision or direction. If you do not know where you want to go, then you can't distinguish which road to take. At the Kenya Wildlife Service (KWS), we know exactly where we want to go. We are clear about our mandate, and are very passionate and committed to the job; our vision is to be a world leader in wildlife conservation.

In line with our mission to sustainably conserve and manage Kenya's wildlife and its habitats, the leadership of KWS is giving special focus on how to increase staff productivity. We are empowering our employees and continuously providing a working environment for them to reach their full potential. We recognise that staff are much more than assets; they are KWS brand ambassadors and most important, the face of Kenya and the first point of contact with visitors. In 2010, KWS hosted 2.3 million tourists who contributed KSh 3.16 billion revenue towards conservation.

Early this year, we recruited 500 new rangers. I take this opportunity to welcome them to the KWS family and also introduce them to you (partners and stakeholders). A large number of them will be deployed to parks that are home to larger numbers of the endangered species like the rhino. We are keen on ensuring that Kenya's number one foreign exchange earner – tourism

whose major base is wildlife – is sustained through enhanced law enforcement.

As part of the journey of being world class, KWS continues to embrace technology to enhance service delivery. We have phased out the old Smartcard and visitors now have to use the new Safaricard to access our major parks. It is easier to use and helps us track our revenue. More points of sale have been introduced, the latest being East gate at the Nairobi National park. This is part of our objective to deliver excellent services and sustain our revenues. KWS exists to serve its customers and we are committed to ensure all our customers are delighted.

In the area of conservation, a lot has happened in the last three months. We have concluded reviewing the conservation fees (park entry fees) for all parks to be implemented in January 2012. This was done in consultation with the tourism industry players, Ministry of Forestry and Wildlife, and the Ministry of Tourism.

The current severe drought in parts of Eastern Africa is a challenge not only to human beings, but also in wildlife management. There is an increase of conflict between animals and humans as they compete for common natural resources like water. KWS is at the forefront of providing solutions that will reduce these conflicts and ensure harmonious co-existence now and in the future. Through government support, we have embarked on projects that will see the drilling of boreholes in Northern Kenya - Wajir, Marsabit, Mandera and Isiolo.

We also continue to support Vision 2030 goals. In July, we had a groundbreaking for accommodation facilities in Meru and Kora national parks. This move is aimed at increasing bed capacity and improving traffic to the lesser visited parks. We encourage investors to come on board and partner with us. I urge those on board to speed up their projects while maintaining the required quality in order to realise the benefits of their investment.

Thank you for your continued support. Unlike Alice in Wonderland, we know where we want to go, and we know we will get there! ■

Julius Kipng'etich
Director, KWS

Kenya Wildlife Service

+254 20 3992000 / 3991000

+254 20 237940/8/9, 2379410/1/4/5/6

kws@kws.go.ke

Editor-in-chief:

Esther Walya

Editorial Committee:

- John Ringera
- Paul Mbugua
- Catherine Wambani
- John Mugendi
- Valentin Kanani
- John Karenju
- James Nyakundi

Managing Editor:

Paul Udoto

Editor:

Carole Kimutai

Production Director:

Ngugi Gecaga

Editorial Assistants:

Sammi Nderitu

Dennis Kibet

Amos Rono

Contributing Writers:

Dr. Judith Nyunja, Alfred Owino,

Paul Udoto and Sammy Kerre

Photography:

Sammi Nderitu and KWS Image Library

PORINI is published for KWS by:

KIM Media Services

Luther Plaza, 2nd floor

Nyerere Road/University Way roundabout

P. O. Box 43706 – 00100 Nairobi, Kenya

Tel: 020 2535277, 2445555

Email: msu@kim.ac.ke;

Website: www.kim.ac.ke

We welcome articles or any feedback from readers on conservation and tourism.

Please include your name, address and telephone number. Letters/articles may be edited for clarity or space.

Email: porini@kws.go.ke

The views expressed in this newsletter are the author's and do not necessarily reflect the views of the Kenya Wildlife Service or the Kenya Institute of Management.

Reproduction of any articles or pictures without permission is prohibited.

Projects reduce human-wildlife conflict



Hon. David Mwiraria, KWS Board of Trustees Chairman and Julius Kipng'etich, KWS Director at Chanyiro village, Kwale County.

Story and photo: **SAMMY KERRE**

As one of its strategies to reduce human-wildlife conflict, KWS is providing solutions to some of the causes that lead to conflict. Demand for land, lack of resources like water and firewood, and drought has seen humans encroach on the natural habitats of wildlife.

To reduce years of human-wildlife conflict in the Shimba Hills National Reserve, KWS has handed over a water dam to the residents of Chanyiro village, Kwale County. Residents would walk long distances in search of water, most of the time competing for it (water) with animals in the Reserve. "Deaths were common. Elephants especially have been a menace and have killed several

people," says Fatuma Asali a resident. Hon David Mwiraria, KWS Board of Trustees Chairman officially handed over the dam to the residents

In another part of Kwale, Hon. Dr. Noah Wekesa, Minister for Forestry and Wildlife commissioned an electric fence project at the

Mwaluganje Elephant Sanctuary in Kinango. Benson Wamaya, KWS's Head of Buildings and Fence, says the fence will prevent wild animals from invading farms.

The project involved convincing the community to donate land to be used as ranging ground for elephants. "The communities were not getting anything out of this land because the elephants destroyed everything. But under this new arrangement, the community will earn direct revenue from tourist visits to the sanctuary," says Wamaya.

Mwaluganje Elephant Sanctuary is a community run project started in 1993. Tourists pay to see animals and at the end of every financial year, money is divided to shareholders as dividends. ■

Colombia to commercialise its biodiversity

Colombia has approved a policy that will see the sustainable commercial use of its rich biodiversity resources, mainly through the development of biotechnology research.

The policy was approved by the government in June 2011 and includes plans to set up a national company for bioprospecting to link up with the

commercial sector. It will be backed with US\$14 million in government funds over the next four years. Colombia's goal is to enable the development of industries and products based on the sustainable use of its biodiversity. The country is home to ten per cent of the world's known biodiversity. ■

Source: scidev.net

Events Calendar

COMPILED BY: Sammi Nderitu



17th September 2011 – Cycle with the Rhino
Venue: Lake Nakuru National Park - Nakuru

International conferences
International Conference on Environmental Pollution and Remediation (ICEPR'11)
17 to 19 August 2011
Ottawa, Ontario, Canada



XXIX Congress of International Union of Game Biologists
17th to 22nd August 2011
Moscow, Russia Federation

Expert Meeting on Development of post 2010 Global Biodiversity Targets
2nd to 3rd October 2011
Nairobi, Kenya

3rd Meeting of the Chairs of Scientific Advisory Bodies of Biodiversity- Related Conventions
4th October 2011
Nairobi, Kenya

Meeting of the Chairs of Scientific Advisory Bodies of Biodiversity and Ecosystem Services (IPBES)
5th to 9th October 2011
Nairobi, Kenya



16th International Forestry and Environment Symposium
Location: Nugegoda, Sri Lanka
Date: 28 - 29 October 2011

Celebrating 22nd George Adamson Anniversary **Friday 19th August 2011**
Kambi ya Simba, Kora National Park.

UNWTO to support sustainable tourism

By CAROLE KIMUTAI

The coastal town of Mombasa hosted the 90th Session of the United Nations World Trade Organisation (UNWTO) Executive Council meeting in June that was chaired by Dr. Taleb Rifai, UNWTO Secretary General. The meeting saw the signing of an agreement between the Government of Kenya and the UNWTO on technical and financial support of a tourism project under the Sustainable Tourism for Elimination of Poverty (STEP) Programme of the UNWTO. The Programme aims to identify and support viable tourism projects with the aim of alleviating poverty.

In 2010, 15 community initiatives based in various tourism hotspots received KSh16 million under the STEP program. The community projects are located in Amboseli, Magadi, Kitengela, and central Rift Valley. According to Tourism Minister Hon. Najib Balala, the initiative is in line with the government policy of spreading tourism earnings to the rural communities and ensuring sustainable utilisation of tourism resources. Kenya is among nine projects in Africa with a budget of US\$ 200, 000 (KSh 18 million) from UNWTO Programme.



Photo: Courtesy

(L-R) Dr. Taleb Rifai, UNWTO Secretary General, Hon. Najib Balala, Tourism Minister and Hon. Cecily Mbarire, Assistant Tourism Minister, during the KETA ceremony.

Inaugural tourism awards

While on his visit to Kenya, Dr. Raifai was chief guest during Kenya's inaugural Kenya Tourism Awards (KETA) – a joint undertaking by the Kenya Tourist Board, and the Kenya Tourism Federation. Created in the backdrop of improved performance by the tourism sector, KETA celebrates and encourages this positive momentum, and encourages positive competition among tourism businesses in order to spur the growth of the sector.

The awards further recognise the role the industry plays and its contribution to the country's economy as well as the potential in synergies across the various industry

players. Muriithi Ndegwa, Managing Director, KTB, urged the industry to aim at improving service delivery to meet the international standards.

The awards were held to recognise, celebrate and encourage best practices in sustainable tourism, and award tourism businesses that have demonstrated their commitment to sustainable and best practices. Journalists who have promoted destination Kenya were also awarded.

The Kenya Tourism Awards is set to be an annual event and will be a highlight of the annual events calendar for the local tourism sector. ■

One in 10 species could face extinction

One in 10 species could face extinction by the year 2100 if current climate change impacts continue. This is the result of University of Exeter research, examining studies on the effects of recent climate change on plant and animal species and comparing this with predictions of future declines.

Published in leading journal Proceedings of the National Academy of Sciences (PNAS), the study uses the

well-established IUCN Red List for linking population declines to extinction risk. The research examines nearly 200 predictions of the future effects of climate change from studies conducted around the world, as well as 130 reports of changes which have already occurred. The research shows that on average the declines that have already happened match predictions in terms of the relative risk to different species across the world.

Lead author Dr. Ilya Maclean of the University of Exeter said: "Our study is a wake-up call for action. The many species that are already declining could become extinct if things continue as they are. It is time to stop using the uncertainties as an excuse for not acting. Our research shows that the harmful effects of climate change are already happening and, if anything, exceed predictions." ■

Source: scidev.net

Gold mine lying in bioprospecting



Article by: **KAVAKA MUKONYI**

Kenya is a rich ground for bioprospecting. PORINI spoke to Kavaka Mukonyi, KWS Senior Scientist, Bioprospecting and Biotechnology on the opportunities available.

PORINI: What is Bioprospecting?

Kavaka Mukonyi: Bioprospecting comes from two words; bio meaning life, and prospecting meaning to explore. Bioprospecting is the exploration of flora and fauna including microbes whether living or dead for purposes of research, discovery, development and commercialisation for the benefit of mankind. Through technology, the collected material is modified for the benefit of mankind through what is referred to us biotechnology for example, wild scorpion venom can be used to improve maize yield.

There is also bio piracy.

How does it relate to bioprospecting?

Biopiracy is unethical bioprospecting. A lot of biological materials in Kenya have been lost through unethical bioprospecting.

Why is Bioprospecting important for Kenya?

Kenya is among the 15 mega biodiversity countries in the world. The rich and unique biodiversity offers opportunity for bio wealth mining. The valuable biological resources and associated traditional knowledge and derivatives continue to attract huge number of leading

world biotechnology companies for bioprospecting.

Globally, bioprospecting is a multi-billion dollar business and directly contributes to creation of wealth, employment and achievement of Kenya's Vision 2030. Bioprospecting is recognised as a potential avenue for wealth creation and income generation, incentive for conservation and environmental protection, and accelerated sustainable development for biodiversity rich countries like Kenya.

Out of the 34 biological hotspots classified by Conservation International (2008) in the world, Kenya hosts two. The rich biodiversity serves as Kenya's biodiversity treasure that contributes to the economy, which has an invaluable and extensive potential for innovative products and processes that is still widely untapped.

Which opportunities lie in bioprospecting?

Kenya has a diverse and large reservoir of both domestic and wildlife resources and their breeds which offers a rich genetic pool for bioprospecting. The commercialisation and industrialisation of gene (genomic) based strategies to understand and predict and manipulate biological organisms for commercial agriculture and health is being hailed as the engine driving economic development into the 21st Century. This offers an avenue for prospecting for valuable genes and products from both wild and domesticated animals. Already, there are major bioprospecting activities based on wild animals. For example, wild animals like the Africa green monkeys are used as models in development of drugs including testing for safety, efficacy as well as in clinical trials for treatment of human diseases such as sleeping sickness.

Bioprospecting for effective and representative whole animal models as well as tissue culture (cell lines) will continue with emerging pandemics and new drug development and search for biomarkers and bio-indicators for monitoring environmental impact

assessment and eco-toxicology studies as well as testing allergenicity in Genetically Modified Organisms (GMD's).

Wildlife biopharming is a major source of pharmaceutical products. For example bioactive alkaloids from frog skin, venom mining from reptiles and marine fish (Teleost fish), and anti cancer and stroke active elements from various species of wildlife.

What is the value of bioprospecting?

The size value of bioprospecting in Kenya has not been quantified as it still at infant stage. However, globally it is estimated at between USD 500-800billion per year.

What are the major threats and challenges facing bioprospecting in Kenya?

The biggest threat is legislation; lack of appropriate structures of governance has made Kenya not realise the potential profits from her biodiversity. There are generally weak laws, with no proper instruments in place for enforcement and compliance, monitoring and evaluation, and there are no benefit sharing systems in place as stated in the Constitution. Other issues include lack of education and awareness, poor negotiating skills by Kenyans with partners, inadequate infrastructure, low critical mass of bioprospectors and limited funding to support bioprospecting activities.

How can these challenges be addressed?

Kenya is focused on addressing these issues as indicated in the Constitution, emphasising the need for proper governance in management of our biodiversity and need to consider fair and equitable benefit sharing of biodiversity derived products with all stakeholders including indigenous communities.

The proposed Wildlife Bill recognises the need to put in place bioprospecting legislation. Already, Kenya Wildlife Service is putting in place strategies for effective bioprospecting for the benefit of the country. ■



The race towards sustainable conservation

By **SAMMI NDERITU** and **CAROLE KIMUTAI**

Tourism is the backbone of Kenya's economy was a popular cliché more than a decade ago; back then, Kenya was an exclusive safari destination (it still is). Marketing materials had beautiful photos of the lion, elephants, giraffe, and zebra. There were also the famous photos of a hot air balloon flying over the magnificent Maasai Mara – a perfect picture of the African safari. Part of the package also included pristine white Kenyan coastal beaches and the enthralling blue Indian Ocean. The cherry on the cake was the *Jambo!* and *Hakuna Matata!* catch words – Kenya was indeed the place to visit.

But times are changing and the world is operating under new rules. What used to be Kenya's greatest foreign exchange earner is no longer the cash-cow. *Hakuna Matata* (there is no problem) can be rephrased to *kuna Matata!* (there is a problem). The tourism sector is under threat because of: terrorism, poaching, human-wildlife conflict, deforestation, travel advisories, competition from emerging markets, growing population, climate change, recession, unrest in the

Middle East, political unrest, infrastructure development... the list continues to grow.

According to the Ministry of Tourism, as at December 2011 tourism earned Kenya approximately KSh 73.7 billion annually – it is Kenya's second highest foreign earner after tea. Apart from direct money injected into the economy, the sector employs hundreds of thousands of people who work directly or indirectly in the sector. Thousands more run businesses that provide goods and services to the sector.

Worrying statistics

Statistics from the Kenya Wildlife Service (KWS) are worrying. In 1973, the first elephant census established that there were 167, 000 elephants in Kenya. By 1989, below 20,000 elephants were still alive. KWS approximates that Kenya has 37, 000 elephants now – the numbers should ideally be more but because of poaching and other factors elephant numbers have been rising at 4 percent every year. Recent findings by scientists show that Kenya has lost more than 50 percent of its wildlife in the last 30 years as a result of poaching, habitat destruction and climate changes. KWS is mandated to conserve and manage wildlife resources in Kenya as directed in the Wildlife, Conservation and Management Act of 1989. It has the herculean task of ensuring

that the country's wildlife is protected; that tourism continues to support the economy.

Edwin Wanyonyi, the KWS Head of Resource Mobilisation, says the challenge is to ensure the survival of wildlife today and in future. This is an expensive venture, that calls for active participation of all partners and shareholders. Since much of Kenya's conservation work is currently supported primarily by tourism and international donors, Kenya is in a delicate position. In 2008, during the post election violence, the tourism sector took a beating and it took two years to recover. This was followed by the global financial crisis that saw tourist numbers dip by almost 40 percent.

The KWS Endowment Fund

With all the micro and macro environment factors affecting the sector, KWS has established an Endowment Fund. This is a special account set up to generate revenue that will be used for specific purposes. Regular withdrawals from the invested capital are used for ongoing operations or other specified purposes. The fund is designed to function in perpetuity making it possible to provide financial support over a long period. A distinguishing characteristic of an Endowment Fund is that the principal amount contained in the account is not disbursed for any reason.

This principal amount is in a manner that creates a steady return and it is this return that is used when there is need for it.

The Endowment Fund was established in July 2009 with the objective of providing a sustainable and consistent source of funding for wildlife and its habitat to benefit present and future generations. It is also meant to cushion conservation from fluctuations in funding from decline of tourists numbers, political chaos among other things," says Wanyonyi. The KWS Endowment Fund gets revenue from park entry revenues, government allocations, donations, grants and contributions among others.

The goal of the KWS endowment fund is to raise US\$ 100 million (KSh 9 billion) in 10 years. With this fund in place, at a projected interest rate of 10 percent annually, the kitty will have KSh 900 million available every year. This financial year, 2011/2012, the government allocated KWS KSh 2.19 billion but the organisation requires KSh 3.8 billion to undertake its mandate. To bridge the gap, KWS engages in various initiatives to sustain its operations and boost the endowment kitty.

Fundraising initiatives

To bridge the budget deficit and boost the endowment fund, KWS has several initiatives aimed at raising funds. They include:

- **Animal adoption program**

This is for orphaned animals sheltered at the Nairobi Animal Orphanage at the KWS headquarters that cares for abandoned or injured wild animals. The adoption program allows individuals and corporates to adopt an animal. The adopting 'parent' gives money for the care and protection of the animal and 50 percent of the amount is out in the endowment fund (to earn interest) to ensure sustainable care for conservation of those in the wild.

- **To Hell's Gate on a Wheelbarrow**

The primary objective of the competition is to raise funds for the

construction of a Conservation Centre at Hell's Gate National Park. This is an annual event held every June; now in its third year and involves competitors racing while carrying their teammates on a wheelbarrow over a distance of 7 kilometres. In 2010 and 2011, KSh 7 million and KSh 10 million was raised respectively.

- **Cycle with the Rhino**

This is an annual event held every September at the Lake Nakuru National Park that brings together competitors cycling a distance of 74 kilometres within the expansive park. The proceeds realised from the event go towards rhino conservation, community projects in Nakuru and support and management of the human-wildlife conflict around the park. In 2010, the event raised KSh 7.5 million. This year, the target is KSh15 million. The event will be held on 17th September 2011.

- **The Boat Race**

The maiden event will be held in November to be held in Lake Victoria, Kisumu. The event's main goal is to partner with the local community in enhancing wildlife management

in addition to raising funds for conservation.

- **Boda Boda Race**

This is a cycling race that will be held in Kakamega forest for the first time. The objective of the event is to raise funds, and bring together communities around the forest through an activity that is familiar with them.

In coming up with fundraising events, KWS adopted the concepts of the events based on the needs of the parks and main activities of what communities around those parks do. For example, the wheelbarrow race was informed by the need to sensitise people around Hell's Gate National Park against transporting game meat on wheelbarrow, a common tool of transporting goods in the area, and instead see it as a reminder to conserve wildlife.

The element of fun in the events is meant to appeal to many people and make them enjoy their time in the parks by watching wildlife and thus appreciate the importance of conservation. Wanyonyi is optimistic that in the next five years, KWS will have raised \$30 million (KSh 2.7 billion) for its endowment fund. ■

Learning from others

The first ever environmental endowment fund in Africa was established in 1995 by the Bwindi Mgahinga Conservation Trust to conserve the biodiversity in the Bwindi Impenetrable and Mgahinga Gorilla National Parks in south-west Uganda. The fund aims to protect some of the most biologically diverse tropical forests in East Africa which are home to many of the world's remaining mountain gorillas as well as support community livelihoods and boosting research and ecological monitoring to support conservation.

In America, the Grand Canyon Wildlife Endowment Fund, established

by the Grand Canyon National Park in Virginia is one special investment that is solely devoted to conserving wildlife in the area, a number of which are threatened or endangered over a long term period.

In Australia, the Holsworth Wildlife Research Endowment aims to support research in ecology, wildlife management and natural resource studies. The fund encourages beneficiaries to undertake field work on Australian native plants and wild animals to gain understanding of ecological interactions, population's dynamics, animal behaviour and species distribution. ■

Photo Gallery



Grieves Cook, Kenya Tourism Board chairman, is presented with the best Safari Operator Award (Game Watchers Safaris) by Dr. Taleb Rifai, Secretary General, UNWTO.



Hon David Mwiraria, KWS Board of Trustees chairman and Fungo Chenge, the vice-chairman, try out one of the customised wheelbarrows during the 2011 "To Hells Gate on a Wheelbarrow" race at Hells Gate National Park in Naivasha. Prof George Owiti, KWS Training School principal, cheers them on.



The 'four ball' team that represented KWS during the Nairobi Greenline Golf Tournament at the Windsor Golf and Country Club to mark the World Environment Day. Amongst others, KWS sponsored hole number six (6) on the first nine(9) and hole number thirteen (13) on the second nine.



(L-R) Jonathan Kirui, Assistant Director Eastern Conservation Area, Jay Felix Munyambu, OCPD Garissa and Ambrose Lochokwe, District Officer one – Garissa, examine elephant tusks recovered during the arrest of a suspected poacher in Kora National Park.



Park Wardens from various conservation areas listen to H.E. David Collins, the Canadian Ambassador during the opening of a training workshop conducted by Parks Canada at the KWS Training Institute, Naivasha.



Anton Levitan (centre), Rhino Charge Clerk of the Course, holds the KSh. 77 million dummy cheque raised during the event as Michael Karanja (Right), Rhino Ark Chairman, and Julius Kipng'etich, Director KWS, clap as they appreciate the amount raised at the events prize giving ceremony in Yatya, Baringo.

Photo Gallery



Julius Kipng'etich (third left), KWS Director, holds an Appreciation certificate given to him for supporting and promoting Target Rifle shooting sport locally and abroad. He joined Cpl David Lekapana and Ranger Joram Mbugua for a group photo. With them from Left; Wilson Korir, Assistant Director, Tsavo, Peter Leitoro, Deputy Director, Ms. Catherine Wambani, Security Personal Assistant to the Director and Staff Officer, John Kimani, Quarter Master.



H.E. Ambassador Scott Gration, The U.S. Ambassador to Kenya signs the visitor's book at the Nairobi National Park main gate. Looking on is Mark Cheruiyot (left) the Senior Warden, Wilberforce Nekesa (centre), Ms. Grace Ndung'u, Deputy Park Warden and Customer Service Assistant.



Abid Khawaja, Managing Director of the African Conservation Tourism Group shows the structural plans for new lodges to be built in Meru Conservation Area. Looking on is Julius Kipng'etich, KWS Director.



Feng Yingbing (left) the Chief Editor of China's Xinhua News Agency China Comment Magazine and Wang Chaowan (fourth left), the Director General of Xinhua Africa, lead a group of Chinese celebrities in planting trees at Karura Forest, Nairobi, during the launch of the Second Bright Moon-Africa Conference in June. The event, sponsored by UNEP and the Xinhua Africa, aimed to create more awareness among Kenya on the importance of environment. (Xinhua)



Julius Kipng'etich, KWS Director joins COYA company representatives in a warm up session before presentations at the Nairobi Safari Walk, KWS headquarters. The COYA team had paid KWS a courtesy visit for exchange of ideas on Organisational Performance Index (OPI).



H.E President Mwai Kibaki presents Sergeant Daniel Yankere with a medal for winning the first regional Wildlife Law Enforcement Hero award in Manyani Field Training School in Tsavo West National Park.

The Martial Eagle

Charismatic and majestic conservation ambassador



Article by: **ALFRED OWINO**
Photo: **KWS Image Bank**

The eagle represents a symbol of strength and power. Many organisations use the eagle as their logo to represent their supremacy. For example, the Kenya Air Force logo is an eagle symbolising power and might; the Barclays Banks logo is an eagle representing economic power; Nigeria's national football team is called the Super Eagles; and Tunisia's soccer team Les Aigles de Carthage - The Eagles of Carthage uses the eagle as a symbol to rally their fans.

The Martial Eagle scientifically known as *Polemaetus bellicosus* is Africa's largest and most imposing eagle. It inhabits the savannah and thorn bush areas of Africa south of the Sahara. The bird is relatively shy and avoids areas inhabited by humans. It is now mainly confined within protected areas; especially parks, game reserves, and sanctuaries where it feeds on: medium sized mammals, large birds and monitor lizards. The Martial Eagle is charismatic and relatively easily approached, captured and handled. Therefore, there is tremendous opportunity for photographic documentation of the species that can lead to huge marketing potential.

The Martial Eagle is scarce, its numbers declining rapidly in Africa. In Kenya, the species is threatened especially by human-induced habitat disturbance, direct persecution, effects of poisoning and loss of available prey. Other threats include: impacts of climate change on

distribution, abundance and recruitment, illegal trade in birds of prey, and loss of eggs and their young to predators like baboons. The Martial Eagle can however tolerate a certain amount of favourable human land usage like large scale ranching, and associated low human populations.



The Martial Eagle

Photo: Paolo Torchio

The Martial Eagle is at the pinnacle of the avian food chain and is an effective indicator of ecological status and trends, as well as the presence of harmful substances in the environment. Like all predator-prey relationships, what affects the prey ultimately affects the predator and abnormalities in predators (population or behaviour) are often reflections of other abnormalities further down the food chain. The Martial Eagle is an effective tool for conservation because they occur at population densities lower than those of most other organisms of similar size.

Research focus

To conserve Martial Eagles, it is critical to understand their natural history, habitat requirements, and the environments in which they live. The research required to gain this knowledge, while challenging, presents opportunities for training local conservationists, students and resource professionals.

Kenya Wildlife Service (KWS) in collaboration in with Peregrine Fund (Kenya Project) has finalised a research proposal to conduct the first-ever satellite telemetry research on the ecology and behaviour of the Martial Eagle in changing landscapes. The objective of the study is to ensure future conservation actions are based on sound science and observation rather than ill-informed guesses.

In particular, KWS is keen to determine the Martial Eagle home range and territory sizes in different areas and habitats; identify area-specific causes of mortality and population declines; improve sustainability of conservation efforts through capacity building for partners in Martial Eagle research and monitoring; and increase public understanding about the need to conserve the Martial Eagle and consequently all birds of prey in general. ■

Alfred Owino is a Research Scientist (Ornithology) at KWS

Email: alfred@kws.go.ke

The King of the Jungle under threat

Article by: **DENNIS KIBET**

A recent workshop on Carnivore Conservation revealed shocking statistics on declining numbers of lions in Kenya. Findings indicate that Kenya's lion population has dropped from an estimated 2,749 in 2002 to approximately 2,000 currently.

The African lion is classified by the International Union for Conservation of Nature (IUCN) as vulnerable. The lion plays a critical role in Kenya's tourism due to its role as a 'top predator' in the food chain. It impacts the numbers of prey species which include: buffalo, zebra, wildebeest, impala, warthog, hartebeest among others.

Kenya's lions face a growing number of threats. Human-wildlife conflict remains a key problem as lions face retaliatory attacks from pastoralists; carcasses laced with poison are the greatest threat to carnivores and scavenging birds.

A sharp increase in human population has also led to encroachment into protected areas and incursions of wildlife habitats, reducing the wild prey base. Competition for pasture with domestic stock and illegal hunting by the communities has also contributed to a reduction in the lion's wild prey.

Habitat loss due to land use changes, and human encroachment into areas that were previously occupied exclusively by wild animals is having a major negative impact on the range size for lion populations. Globally, there are increasing reported cases of lion parts like claws and teeth that are sold in the international black market.

Reversing the trend

To address this situation, KWS in collaboration with other conservation stakeholders have come up with measures

to reverse declining lion numbers. The national large carnivore conservation and management strategies now in its second year of implementation have helped in stabilising lion numbers in Kenya.

The strategies, the first in Africa, provide a roadmap for the conservation of lions and other large carnivores like cheetahs, leopards, striped and spotted hyenas, and the African wild dog. The objective is to ensure effective and efficient data collection, and utilisation of information in the conservation and management of lions in Kenya.

KWS in partnership with the Born Free Foundation has erected lion-proof bomas in Amboseli for communities living adjacent to the Amboseli National Park. This is to ensure that pastoralists do not lose their livestock. ■

Know your park

Meru circuit gets ready for tourism boom

Article By: **DENNIS KIBET**

Tourist arrivals to Kenya are expected to hit the 1.9 million mark this year and the Meru tourism circuit is already positioning itself as a major tourist destination. Tourism development efforts in the Meru Conservation Area (MCA) have already been boosted following the authorisation of construction of more lodges. Recently, the Kenya Wildlife Service (KWS) handed over the sites for new lodges in Meru and Kora National Parks to Monarch Group of Investors.

The lodges are part of the Meru Management Plan drawn out in 2008 by KWS in collaboration with Mwingi and Isiolo County Councils. The development package includes increasing accommodation facilities, and improving the area's tourism infrastructure in line with Kenya's Vision 2030 development plan.

Visitor experience

MCA offers a distinctive visitor experience that capitalizes on the area's habitats and historical heritage. Its unique wilderness attraction positions it as a favoured destination set to benefit from visitor preferences for exclusivity and out-of-the-ordinary wildlife tourism.

Visitors to Meru National Park can see game from diverse wilderness habitats and stunning views of Mount Kenya. The park also hosts a rhino sanctuary, one of the largest in Africa. The vegetation cover and the permanent rivers host several wild animals that include the buffalo, lion, lesser kudu, oryx, gerenuk, hartebeest, and gazelle.

Kora National Park is famously known as the former home renowned conservationist, George Adamson, and

was the setting of the award winning film *Bornfree* based on the lives of Adamson and his wife Joy. In August, the park will host an annual event in remembrance of conservation works pioneered by Adamson. The event is expected to bring together people with an interest in history and works of the Adamson's in order to raise funds for the conservation of the Lions in Meru and Kora Ecosystems.

The park's other attractions include Kambi ya Simba, the former home of George Adamson, Inselbergs, the Adamson's and Grand Falls, Kora rapids, diverse birdlife of over 300 recorded species as well as the George Adamson's grave. ■

Wetlands are core to the environment



Article By: **DR. JUDITH NYUNJA**

Wetlands are to the environment what the kidneys are to the body. Wetlands play an important role in filtering and replenishing groundwater, making it available for human consumption. Wetlands are important to the ecosystem because they help support life on the planet.

In Kenya, the national wetlands standing committee of the inter-ministerial committee on environment defines wetlands as areas of land that are permanently, seasonally or occasionally waterlogged with fresh, saline or marine waters, including both natural and man-made areas that support characteristic biota.

In the international context, under the Ramsar Convention on Wetlands of International Importance, wetlands are defined as areas of marsh, fen, peat-land or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.

Wetlands are generally distinguished from other water bodies or landforms based on the water level, and type of plants that thrive within them. They are characterized by having a water table that stands at or near the surface for a long enough season each year to support hydrophytes (water plants), providing a transition between dry land, and water bodies.

Kenya has five wetlands of international importance: Lake Nakuru, Naivasha, Bogoria, Baringo and Elementatia.

Benefits of wetlands

Wetlands are valuable as they offer a vast array of services and goods.

- a) **Provisional services** – Perform functions and produce goods and services vital for mankind. Examples include water for domestic and industrial use, fish, hunting grounds, support agricultural activities, local medicine and provide traditional dry season grazing, raw material for craft production (papyrus, palms and reeds) and construction (sand, mud, and bricks).
- b) **Regulating services** – Flood control, water storage and discharge, filtration and waste water treatment, storm protection and stabilisation, and micro-climate regulation.
- c) **Habitat function** – Wetlands are vital habitats and refuge for wildlife and fishes. The shoreline wetlands of satellite lakes also provide breeding and spawning grounds for several fish species.
- d) **Tourism** – Some of these wetlands are Important Bird Areas and Ramsar Sites having potentials for avitourism outside protected areas. The wetlands attract revenues from tourism entrance fees and support local communities in forms of boat-rides and tour guiding.
- e) **Traditional ceremonies** – Riparian communities use wetlands for perform rituals and ceremonies. For example, the Mijikenda use the Kaya forest for sacrifices.

Most threatened ecosystems

Currently, wetlands are among the most threatened ecosystems. Society mistakenly regards wetlands as wastelands or areas that can be converted into more productive uses. They have been reclaimed and drained for settlement, agriculture, and peat mining.

Pollution by industrial effluents, solid waste, sewage and agricultural chemicals, heavy metals from local industries also affect wetlands as they alter the water chemicals compositions, leading to massive fish kills.

Over-extraction of wetland refugia is also a major threat. The rise in human population leads to over extraction of resources such as reeds and forests as alternative fuel wood. The introduction of invasive species such as *Eichornia crassipes* (water hyacinth) and *Procambarus clarkia* (red swamp crayfish) also have a negative effect on wetlands as they alter interfere with native species ecology. Monoculture (sugarcane and *Jatropha*) and proposed oil mining explorations also pose a threat to wetlands especially within the Tana Delta ecosystem.

Urgent need

There is urgent need for wetland restoration and protection. This is not only to protect the wetlands and the people adjacent or far downstream from wetlands, but also to protect the environment and ensure sustainability of all wetland ecological goods and services.

What should be done?

- Environmental awareness creation
- Enforce policies and laws governing wetland conservation to reduce the overexploitation of wetland resources.
- Enhance research in the ecology and management of wetland ecosystems
- Rehabilitate river banks and other riparian zones through planting native tree species and other riparian vegetation and elimination of the invasive species
- Involve local communities in decision making and management of wetlands
- Environmental Impact Assessments should be done before authorising development activities in wetlands and surrounding areas.
- Harmonise cross-cutting policies and Acts of Parliament that relate to wetlands and develop a wetland map highlighting wetland locations, sizes and activities within each riparian zone and catchment. ■

Dr. Judith Nyunja is a Senior Scientist, Wetlands at KWS.

Email: jnyunja@kws.go.ke



H.E. President Mwai Kibaki sets fire to more than five tonnes of smuggled elephant ivory at KWS Manyani Field Training School.

Kenya celebrates 22nd ivory burning in style

Article By: **PAUL UDOTO**

H.E President Mwai Kibaki set fire to more than five tonnes of smuggled elephant ivory, in an act meant to focus attention on the rise of poaching and illegal trade in ivory.

The bright orange flame that raced through the fuel-laden pile of 335 confiscated ivory tusks and 41,000 trinkets was organised by the Lusaka Agreement Task Force (LATF) and coincided with Kenya's 22nd anniversary of a similar event in 1989. The ceremony officiated by Kibaki was held on July 20, 2011.

"Through the disposal of contraband ivory, we seek to formally demonstrate to the world our determination to eliminate all forms of illegal trade in ivory," President Kibaki said at Kenya Wildlife Service (KWS) Manyani Field Training School, about 350km, South East of Nairobi.

In his address to the people present who included officials from neighbouring states, ministers, diplomats and conservation NGOs, President Kibaki said Kenya is committed to the war against wildlife crime. The torching of ivory was part of the first-ever African Elephant Law Enforcement Day, which included the launch of a Special Account and a Wildlife Enforcement Monitoring System in support of the African Elephant Action Plan.

Currently, the Congo (Brazzaville),

Kenya, Liberia, Uganda, Zambia, Lesotho and Tanzania are full members while Ethiopia, South Africa and Swaziland have signed the treaty but are yet to ratify it.

The African elephant

The Rapporteur of the Governing Council of the LAFT Prof. Ephraim Kamuntu expressed concern over the plight of the African elephant. "The ivory that was burnt in Kenya was seized as a result of cooperation between cross border law enforcement agencies," Kamuntu, who is also Uganda's Tourism and Wildlife minister said.

This year's burning of the ivory marked the 22nd anniversary of a massive ivory burning ceremony by Kenya 22 years ago. The 1989 event was aimed at bringing attention to the plight of elephants in preparation for a meeting of the party members of Convention on International Trade in Endangered Species (CITES) in October of that year. During the CITES meeting, a ban on international trade in ivory was passed and went into effect in January 1990. Since then, Kenya's elephants have recovered from the poaching of the 1970s and numbers significantly increased from 16,000 to the current 37,000.

As part of efforts to eliminate illegal exports of ivory to destination countries,

Feature

KWS has deployed a canine unit in Nairobi and Mombasa to detect any ivory being exported via air or the sea. LATF has also initiated an awards scheme for law enforcement officers who prevent, and arrest those involved in the illegal trade.

Before the burning of the contraband, five officers from Congo (Brazzaville) - Lambert Frederic Bokandza Paco, Kenya - Sergeant Daniel Yiankere, Tanzania - Kassim M. Mtambo - posthumously, Uganda - Lulu Itipa, and Zambia - Moses Philemon Kapesi were feted for their efforts in exemplary wildlife protection and conservation.

Dr. Noah Wekesa, Minister for Forestry and Wildlife Hon said Kenya planned to establish a museum where all ivory confiscated from criminals will be displayed. Proceeds from the museum will be used for conservation.

Advanced technology

One of the emerging challenges facing conservation efforts for wildlife is the increasing use of advance technology in crime. "Aware of this, the government has embarked on a programme to introduce and enhance use of Information Communication Technology as we have fitted select elephants with communication gadgets in order to track their migratory routes via Global Position System (GPS)," Mohammed Wa-Mwachai, the Ministry of Forestry and Wildlife Permanent Secretary said.

The poaching situation in Africa is gloomy. Senegal has only eight remaining elephants, Nigeria lost its last remaining elephant in 2005, while Liberia's last largest terrestrial mammal died in 2010. The elephants of the Central African rainforests and the West African savannahs are being poached at a horrendous rate. Africa's elephants are still down from an estimated 1.3 million in 1979 to less than 600,000 in 1989. Today, there may be as few as 500,000. And the threat to their survival is escalating as nearly 40,000 are currently being killed every year, largely to supply a growing demand for ivory among the newly-monied middle class in the Far East. ■

Paul Udoto, is a Corporate Communication Manager at KWS

Email: pudoto@kws.go.ke



Ranger Ndorosi Kilodi

The day things got Elephant

Reality, someone said, is often stranger than fiction. Ranger Ndorosi Kilodi narrates his near death experience with an elephant to SAMMY KERRE.

Story and photos by: **Sammy Kerre**

Ndorosi Kilodi has been a ranger for 13 years. He found out in the course of his job that life's uneven surface can throw up jumbo-sized dangers. Kilodi wears two hats – a KWS driver and a ranger; he is based at the Shimba Hills National Reserve in Kwale County. "As a ranger, I do regular patrols alongside my colleagues. In the course of this work, we depend a lot on in-coming reports; our work is to protect wild animals as well as human beings from dangers, including the dangers the two (man and animal) present to each other."

Part of keeping peace involves protecting property from destruction by the beasts of the wild that ironically Kilodi also has to protect. This Kilodi says, necessitates making contingency plans, including carrying fire arms. Always being

prepared and getting training has ensured that he is able to handle extreme and urgent situations.

The unfortunate day

However, there is always that unusual, unpredictable element in life, rare yet constantly present. For Kilodi, the unfortunate day was October 31, 2004 in Bahakanda village in Kwale.

It was a normal working day until Kilodi got a distress call that an elephant had left the Reserve and was wreaking havoc in the nearby villages. Kilodi and his colleagues then set out to tame him. "When we arrived, we found it (elephant) had already demolished someone's house. Having dealt with wild animals before, we understood immediately that, that was a danger signal.

The animal was upset," Kilodi narrates. Using special explosives that rangers are trained to use to frighten and herd wildlife, Kilodi and his colleagues made the rogue elephant run into the forest. They thought the battle was over but unknown to them, the battle had just begun. "The animal shot out of the bush like a bullet out of a gun. It charged us. Clearly, it intended to take no prisoners. We shot at it but the bullets seemed to pass right past it as it did not stop. As we scattered for safety, I fell. It charged at me propelled by all its pent-up fury."

The furious elephant attempted to gouge Kilodi. Fortunately, it missed his vital organs, and unfortunately, caught his arm tearing his flesh. In excruciating pain, the elephant proceeded to give its killer blow using its hooves. Lying helpless on the ground, the elephant started trampling on Kilodi and with the little energy he had, he tried to dodge. Fortunately, the beast could not see the victim who was under its body. However, as Kilodi struggled to avoid being trampled on, two of his ribs were dislocated.

Found myself laughing

As the drama unfolded, Kilodi's colleagues were trying to get a clear shot of the elephants head. After a few attempts, they gave up. First, there was the danger of shooting their colleague. Second, the elephant could have easily fallen down killing Kilodi on the spot. So they could only watch. Eventually, the elephant toppled over, succumbing to the bullets the rangers had fired when it charged at them. "When I got away from the falling giant, I found myself laughing. Though I was badly wounded, I was alive. Nobody ever got under an elephant and lived to tell the tale. God had showed His grace to me and I couldn't help laughing."

Kilodi, a husband and a father of three spent the next three months in hospital. After he recovered, he reported back to work. He says his wife got him back on his feet again and taught him to use his left arm again, though in a limited way. "I doubt if I'll ever experience anything crazier than that!" ■



What is the difference between an elephant and a flea? An elephant can have fleas but a flea can't have elephants!



What did the bus conductor say to the frog? Hop on!



Why do giraffes have such long legs? Because they don't like the smell of their feet!



What do you call a very rude bird? A mockingbird!



When would a mouse really need an umbrella? When it's raining cats and dogs!



A bird suddenly appears at a chemist's counter. "Some lip balm please" it asked. "Would you like to pay by cash or cheque", asked the assistant. The bird replied "Just put it on my bill please!"

The rabbit and the snake

A blind rabbit and a blind snake meet each other. Neither one remembers what kind of animal they are, so they decide to feel each other.

The rabbit says, "You feel me first." The snake says okay, and he starts feeling the rabbit.

He says, "Well, you have fur all over, and a little cotton tail, and two long ears, and big back feet..."

The rabbit says, "I know! I'm a rabbit! Yippee!" Then the rabbit feels the snake.

He says, "Okay, you're long and thin, and slimy all over, and there's a little forked tongue..."

The snake says, "Oh no, I am a lawyer!"



M P H I B I A N R Y U F R O P S H J C
 S D A Z H N G N M L J E E K H W T U O
 E W T G R S A F Y V D U P K N I B E L
 I T K W A E C U H F I L T S E L O P D
 E B H Z W C K L M S W E I P N D O R B
 C E I U D T R M A M M A L K O L U D L
 H N G O F R D U B E P A E R T I F V O
 Q V E R T E B R A T E Y B H J F O B O
 F I S H G Y T O I D H J A L V E X I D
 U R Q S A C P Y U I D B M I S E T R E
 O O D L I G H T J F R Y U G A Q X D D
 V N H U T X V N M Y G D I H W T N G J
 S M J E B N U H A B I T A T Y M R J K
 I E G X B J Y F L A S R U N V I H I L
 H N I W R H K M F D Z Q K G L G N E U
 E T J W M S R J G L F B U E H R W Q U
 L T U T O R G A N I S M H R X A V Z Q
 T J G N R I Y D J G N V R Y U T O L C
 T S F T U N A W F H J Y U N V E S F T
 I G H T P O L L U T I O N M U Y R I L

Kenya's wildlife word search

All of the words in this puzzle are names of animals that are found in Kenya. Can you find them all?



Amphibian
 Insect
 Mammal
 Reptile
 Cold blooded
 Bird

Environment
 Vertebrate
 Fish
 Light
 Good light
 Glare

Habitat
 Bad light
 Migrate
 Organism
 Light pollution
 Wildlife

Talk to Porini, Do you have an article or an interesting photo to share? Email: porini@kws.go.ke

• Follow Porini on: [twitter@kwskenya/](https://twitter.com/twitter@kwskenya/) Facebook: Kenya Wildlife Service

Let yourself go. Welcome to serenity

All around Kenya, there are absolutely beautiful and serene locations where you can take your family and friends. Revel in nature's splendour, with a host of activities and a wide range of exotic wild animals your holiday is sure to be memorable. Plan your trip now, make the wild your home away from home.

Think outdoors, think KWS.



Twende Tujivinjari!

Kenya Wildlife Service Headquarters
P.O. Box 40241 - 00100, Nairobi Kenya
+254 20 3992000 / 3991000
+254 20 237940/8/9, 2379410/1/4/5/6
marketing@kws.go.ke
www.kws.go.ke



World Class Parks!