



Protecting Kenya's Endangered Wildlife:
The New Kenya Wildlife Service DNA Forensic Lab



CRIME IS ON THE **RISE** AS
WILDLIFE NUMBERS CONTINUE TO **FALL**

THE KENYA WILDLIFE SERVICE IS
STEPPING UP TO THE CHALLENGE, BUT

WE NEED YOUR HELP

The Problem

Poaching and trafficking is on the rise...

Poaching and illegal trafficking of endangered species protected by Kenyan national laws and international treaties is on the rise, threatening critical parts of Kenya's ecosystems.

... and harder to prosecute than ever.

Poachers and traffickers are getting smarter about avoiding prosecution, and when they do get caught their connections to crime syndicates allow them to have more expensive defense attorneys. Prosecutors rely heavily on experts' abilities to identify a species in court, and now wildlife criminals are going to new lengths to make it harder.

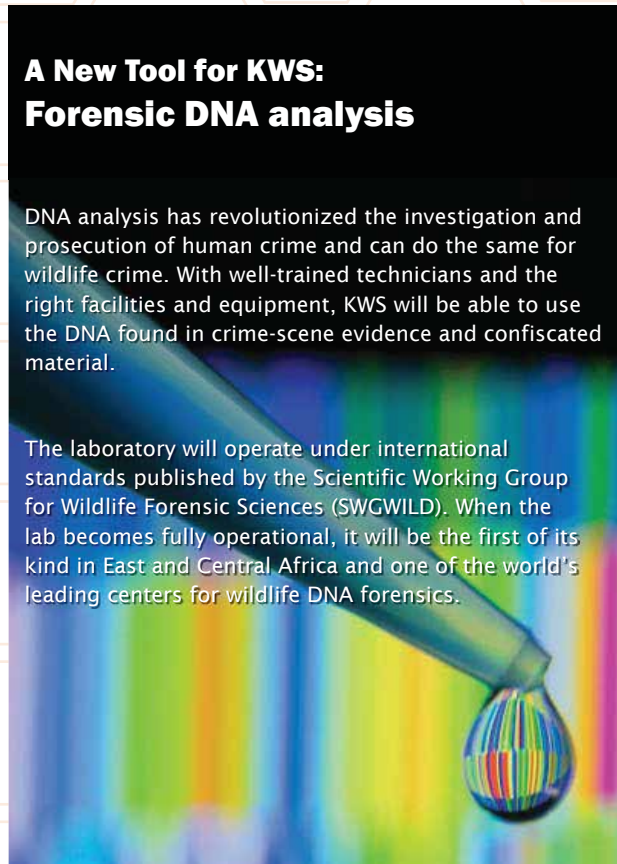
Enforcement officials may be convinced that the bushmeat and powders they confiscate from suspected poachers come from protected species, but even taxonomic experts are unable to identify them with confidence with all the identifying features destroyed during processing.

Even if an expert is able to identify and convince a jury what animal the products are from, crime syndicates have started using complicated trafficking routes to throw investigators off their trail. Moving poached plants and animals around Africa before sending them to overseas markets make it difficult to connect confiscated material to the original crime scene, making it hard to bring the offenders to justice.

A New Tool for KWS: Forensic DNA analysis

DNA analysis has revolutionized the investigation and prosecution of human crime and can do the same for wildlife crime. With well-trained technicians and the right facilities and equipment, KWS will be able to use the DNA found in crime-scene evidence and confiscated material.

The laboratory will operate under international standards published by the Scientific Working Group for Wildlife Forensic Sciences (SWGILD). When the lab becomes fully operational, it will be the first of its kind in East and Central Africa and one of the world's leading centers for wildlife DNA forensics.



How You Can Help

The KWS budget stretched to hire and train new park rangers to stop poachers in the field, but lacks the funds to purchase the equipment that's needed to launch the new forensic DNA lab.



We're asking for your donations to give KWS the tools they need in these three stages:

Stage 1

GETTING STARTED

The basic equipment to get the lab up and running.

Process samples into DNA, then ship DNA to an external sequencing facility.



Stage 2

RAMP UP CAPACITY

More power, more speed, more precision.

Process greater numbers of samples, and be able to identify species and their geographic origins



Stage 3

ALL TOGETHER NOW

Add a DNA sequencer, keep all steps in the lab.

Keep the whole process under one roof, making it faster, more secure, and stronger evidence.



Levels of Support

Select a donation level...

DIAMOND

US\$50,000

Individual donor plaque with photo or corporate logo in the Lab reception area

PLATINUM

US\$20,000

Individual donor plaque in the Lab reception

GOLD

US\$10,000

Name on plaque with donor list in the Lab reception area



...or fill the empty workbenches.

Item	#	Total Cost
Real Time PCR 7500 ABI	1	\$76,000
Acrylic Nucleic acid workstation with UV controlled light	3	\$22,500
Thermal cycler (96 head cycler) for DNA amplification	2	\$21,500
Homogenizer	1	\$6,000
Gel documentation and electrophoresis units (for DNA visualization)	1	\$17,000
Cross linker	1	\$8,500
Photo nanodrop for DNA quantification	1	\$17,000
Freezer ~80°C 590 litre	1	\$19,500
Freezer ~40°C 380 litre	1	\$15,000
Refrigerator - 4/20	4	\$44,500
Dry shippers (for field sample collection)	4	\$11,500
Incinerator	1	\$22,500
Post PCR gel boxes (small, medium, large)	6	\$17,000
DNA extraction instruments	1	\$39,000
ABI 3500XL 8 capillary Sequencer (and accessories)	1	\$240,000

How to Donate

Donate now at

<http://moc.barcodeoflife.net/donate/>

Your donation will be made through a secure online system hosted by the Consortium for the Barcode of Life (CBOL), an international initiative hosted by the Smithsonian Institution in Washington, DC. The Kenya Wildlife Service is partnering with CBOL as part of the Barcode of Wildlife Project supported by Google Giving. 100% of your donation will be transferred to KWS for the purchase of the lab equipment they need.



www.barcodeofwildlife.org



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The Barcode of Wildlife Project (BWP) is an international initiative funded by Google Giving through a Global Impact Award. BWP will enable the Kenya Wildlife Service and other participating agencies to use DNA technology for wildlife crime investigation. KWS and the National Museums of Kenya are co-leading the country's involvement.

Why Are Kenya's Species Endangered?

International trade in endangered species is one of the four largest trans-boundary crimes and business is booming for these and other reasons:



Trophies

The iconic "Big Five" species are heading toward extinction, used for trophies and processing of parts.



Bushmeat

Dozens of species of primates, antelopes and birds are being hunted as "bushmeat," for sale in local markets and exported to foreign markets.



Trade

Kenya's native flora includes many species that are prized by landscape designers and garden nurseries while others are used as herbal remedies.

PROTECT. CONSERVE.

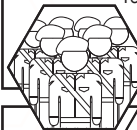
Kenyan Wildlife Service is using all the traditional enforcement tools to patrol wildlife conservation areas, stop illegal hunting and penalize wildlife criminals. Now KWS is adding new technologies, such as DNA forensic analysis, to its arsenal of tools used to protect Kenya's wild heritage.



How is KWS Fighting Back?

International collaboration:

In 2004 KWS launched the Wildlife Enforcement Monitoring System (WEMS), developed by the United Nations University, as the first-ever regional trans-boundary information system to track, apprehend and deter poachers by sharing analyses and reports of wildlife seizures.



Increasing protection in the field:

KWS has hired 1,000 new rangers who will expand surveillance and protection of Kenya's endangered species.



Strengthening enforcement:

Recruiting prosecutors to institute arrest and sustain wildlife crime in court of law.



Increasing penalties:

Under current Kenyan law, the highest fine for wildlife crime is 40,000 shillings (US \$476). Most offenders get away with fines as low as 2,000 shillings (\$24). Kenya's Parliament is considering new legislation that would increase penalties.



Raising public awareness:

Africa is a leading force in campaigns highlighting the poaching crisis and its impact on Kenya's future.

