WILDLIFE POISONING INTERVENTION WORKSHOP REPORT

Swara Plains, Acacia Camp, Athi River, Kenya

17th September 2018

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Organized by: The Peregrine Fund Kenya Project

With funding from: Whitley Fund for Nature and the Band Foundation

Workshop Facilitators: Andre Botha, Darcy Ogada, Martin Odino, Simon Thomsett, Eric Ole Reson and Munir Virani

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Abbreviation and Acronyms

KWS- Kenya Wildlife Service

EWT-Endangered Wildlife Trust

HWC-Human Wildlife Conflict

IUCN-International Union for Conservation of Nature

SOP-Standard operating procedure

MMNR-Maasai Mara National Reserve

KNH- Kenyatta National Hospital

NSAIDs- Non-Steroidal Anti-inflammatory Drugs

ILRI- International Livestock Research Institute

MEP- Mara Elephant Project

AKTF- Anne Kent Taylor Fund

1. Introduction

Although the intentional killing of wildlife by means of poisoning is very difficult to prevent, the impact of individual poisoning events in terms of the losses of wildlife can be reduced through rapid response and immediate action to prevent further losses and contamination of the environment. At the same time as securing and stabilizing a poisoning site, it is essential to collect appropriate evidence for possible prosecution should the perpetrators of such acts be apprehended. Both effective poison site management and the collection of samples from such incidents require particular knowledge, skills and equipment. It is also imperative that due consideration and training to ensure the safety of the individuals involved is ingrained in this process. Apart from reactive capability, knowledge of the drivers, methods and substances used in wildlife poisoning events also enable conservation and law enforcement staff on the ground to proactively be on the look-out for substances and possible perpetrators and, through effective legal intervention, prevent incidents where wildlife is poisoned.

With support from the Whitley Fund for Nature and the Band Foundation, The Peregrine Fund East Africa Project invited Andre Botha of The Endangered Wildlife Trust (EWT), in partnership with The Hawk Conservancy Trust and the University of Reading (UK), to lead a wildlife poisoning intervention workshop, the second of its kind in Kenya. In addition, Simon Thomsett of the Kenya Bird of Prey Trust also provided vital input to amplify the impact of the training workshop. The goal was to offer support to rangers, law enforcement staff and other interested parties with regard to the above by assisting with the training of key staff within relevant organizations to manage poisoning incidents as effectively as possible. Training covered both theoretical and practical aspects and was conducted on-site over three working days per training session. The following aspects were covered as per the standard protocols which have been drafted by the EWT and its partners over more than 20 years of addressing poisoning incidents in southern Africa:

An overview of wildlife poisoning and its impact on species

- Signs and symptoms of wildlife poisoning

• Information on chemicals commonly used
• Safety of staff and basic equipment required
• Scene investigation and collection of samples
• Assessment of mortalities (Species, age, sex, etc.)

Structure of the workshop

This was a three-day workshop. The first day of the workshop covered the presentation of the scope of the threat, impact and drivers of wildlife poisoning, signs and symptoms of poisoning and the chemicals that are used.

On the second day, presentations consisted of poisoning scene management and investigation after which a practical field visit was conducted for the participants to familiarize them on how to execute the management of a poisoning site.

The third day of the workshop continued with presentations on scene decontamination and clean-up, occupational health & safety, drafting and implementing a poisoning incident intervention plan. Participants were divided into three small groups to outline their strategies of poisoning intervention as well as poisoning prevention. This was then followed by certificate distribution.

Annexure B – agenda of the work shop is attached at the end of the report.

Participation

Participants of the workshop were representatives of Kenya Wildlife Service (KWS) working in Narok County, representatives, legal consultant, rangers, scouts, wildlife managers, field assistants, wind energy representatives, and students. There was a total of 35 participants at the training workshop

Most of the participants were invited from conservation organizations working in the Masai Mara and Kenya's southern Rift Valley landscape. It is hoped that, on returning to their duty stations, the trainees of the workshop will be able to influence policy formulation and/or the reorganization of mechanisms for poisoning reduction and management of an incident scene.

All aspects of the training were successfully covered through lectures, a film, group work, practical, brainstorming and discussions. Participants demonstrated a very positive attitude towards the training program and actively interacted with trainers and with one other. Some presentations required further explanations and raised discussions, whilst the practical exercises and group discussions were absorbing, informative and fun. Workshop evaluation analysis showed a positive review by participants with informative suggestions.

For a detailed workshop evaluation report, please refer the Annexure C at the end of the report.

For a detailed list of the workshop participants, please refer the Annexure A at the end of the report.

2. Workshop sessions

Day 1: Monday 17th September 2018

Introduction to the workshop

PhD candidate Eric Ole Reson welcomed all the participants and gave an overview of the workshop. Eric also gave a presentation about the "Vulture Protection Network" and highlighted the problem of wildlife poisoning and its catastrophic impacts on vultures.

Eric's presentation highlighted how in the south rift region of Kenya, wildlife poisoning is a serious threat to iconic African species such as lions, leopards and hyenas. Vultures are severely affected by this practice leading to serious population declines in southern Kenya as well as across the whole of Africa. Vultures provide key ecosystem services, and their extinction is likely to have devastating effects on the wider social-ecological system of East Africa's savanna. Given that human activities are the primary cause of the decline, it was important to understand the drivers and extent of illegal behaviors threatening wildlife. Eric's study focuses on the drivers of poisoning and aims to quantify the extent and distribution of this practice across Southern Kenya. His work concentrates on the two Counties of Narok and Kajiado known to support African *Gyps* vultures. His study will collect a total of 1500 questionnaires where questions

related to farming, livestock losses, issues with predators and use of poison will be asked to a random sample of pastoralists from across the area. The latter question is sensitive; therefore, we will use a specific technique, the *unmatched-count technique*, specifically designed to yield reliable answers from sensitive questions.

Eric's preliminary results suggest that < 1% of respondents use poison to kill predators in retaliation of livestock lost. Modeling of the drivers of poisoning will be done in order to deeply understand the socio-ecological context in which pastoralists revert to poisoning.

From the sampled questionnaires and observations from the field, poisoning is still a very sensitive issue to the majority of respondents, although some respondents are still bold to provide information on their reasons for poisoning. This is attributed to human wildlife conflict; some respondents are likely to kill predators using poison. Some poisonous substances have been adversely mentioned as the main toxins used to eliminate predators. A map showing the hotspots of poison use will be derived based on the collected data and will be used to prioritize conservation actions where they are needed the most. Eric stressed the need to develop and expand a Vulture Protection Network that will be crucial in combating wildlife poisoning across Kenya's southern Rift Valley.

Day 2: Tuesday 18th September

Lecture 1: Wildlife poisoning impact and trends

Andre Botha of the EWT began the presentation by talking about wildlife poisoning impact and trends. He went on to talk about the IUCN Conservation statuses and where the major mega fauna like lions and elephants of Kenya stand. He then shined light on vulture species in Kenya, emphasizing on four species being critically endangered and two being endangered. The greatest threat facing vultures in Kenya is poisoning. Human Wildlife Conflict is a major driver of poisoning in the form of retaliation. It is almost impossible to prevent poisoning as it is readily available. The African wildlife poisoning database helps to understand how many animals die due to poisoning annually. Vultures are most vulnerable to poisoning compared to other animals due to gregarious feeding habits, obligate scavenging, long generation length (5-7 years sexual maturity), slow reproduction rate, small clutch size (single egg) and a large home range size. The participants were enlightened by a short video on the important abilities of vultures to clean up dead carcasses and avoiding disease spread as they are immune to most. Flies, rodents and feral dog populations increase where vultures are not present. A living vulture is valued at $11,000 for its cleaning services, tourism and prevention of disease spread.

Dr David Ndere KWS veterinary acting head officially opened the workshop on behalf of the Director Dr. Charles Musyoki. Dr Ndere stressed the importance of this training workshop talking about the 80% decrease in vulture population in 50years with the main causes of poison being for retaliation, poaching and body parts. He also expressed satisfaction at the current work being done to tackle poisoning and offered KWS's full backing and support to all participants and organizations.

Andre gave a case study example of poachers who were arrested in Mozambique for poisoning an elephant that also killed several vultures. As no law was present to prosecute he walked free. There was emphasis on reviewing of legislation and banning substances like aldicarb. Local law enforcement needs to be supported and guided and there should be proper disposal of harmful chemicals.

However there has been some attempt to awaken responsibility in society like the International Vulture Awareness Day which is on every first Saturday of September. There exists a vulture specialist group under IUCN. The 1st Pan African vulture summit took place in 2012 while the 2nd in 2016. It is a 12 years plan to implementation, consisting of a multi species action plan to conserve African-Eurasian vultures.

Discussion 1

Rebecca emphasized on community based conservation by amalgamating conservation motives with community motives. She also insisted on implementing saving African vultures in Mara project. She talked about providing alternative livelihoods to minimize retaliation due to loss of livestock and to create community awareness by holding Barazas, outreach programs, policies and legislation. The Tourism and Wildlife policy should be amendment and said that poisoning incidents should be reported rapidly. Moses Sankuya from buffalo dancers talked about the conservation of lions in Mara by community education to avoid poisoning and encouraged to include the human health aspect. Muterian talked about a case of poisoning that killed vultures, hyena, a jackal, and a lion. The report of forensic analysis from KNH of samples collected from the scene showed that acaricide killed the wildlife. The case was lost because there was no supporting legislation on poisoning. Daniel Kaaka talked about increasing knowledge on importance of vulture in the ecosystem. Isaac talked about how poisons wash into rivers poisoning others living things dependent on the river and mentioned about people volunteering their own livestock to poison game. He also noted the increase in feral dog population. Luke Maamai said how during 2008 lions were mostly killed by spears but from 2010 it has changed mostly to poisoning. The poisoned animals are dug underground to hide evidence but rains still wash the poisons. Grazing in these poison prone areas is dangerous to wildlife. Awareness and training should be done because dead birds are not given enough importance. Naikumi said there is poor interconnection among KWS and local law enforcement in Kenya. Wildlife resources benefits only go to government so there should be benefits sharing. He also talked about linking conservationists with law to create effective policies and inter country

collaboration on wildlife law. Daniel talked about poachers bribing their way out and the community land bill brought in late and not thorough.

Lecture 2: Wildlife poisoning impacts and drivers

Major drivers of poisoning included lack of firearms to retaliate due to the bureaucratic HWC compensation policies. Some cases of wildlife deaths due to poisons included the death of 47 white backed vultures that fed on a poisoned lioness which had eaten a poisoned cow, poisoning of the marsh lions in Masai Mara, 9 lions that were killed in Serengeti, 55 vultures that died from feeding on a aldicarb poisoned jackal in 2013 in South Africa. There was a brief presentation on types of poisoning like intentional poisoning by retaliation due to HWC and use of NSAIDs & other veterinary drugs like diclofenac sodium treatment for cows in India that killed them within 48 hours. There was a rapid reduction in the population of these birds from 40 million in 1990 to less than 20,000 in 7 years. Mass extinction was due to toxins and raised questions like which medicines are used to treat wildlife in Kenya and are they toxic to vultures?

Another major poisoning type is lead poisoning caused by animals being shot by guns. Vultures in turn feed on carcasses ingesting the lead and causing damage to reproduction, awareness and reflex. The dumping of waste by people in Europe caused lead to exist in the environment which gets into food chains and webs. People also harvest and eat meat from problem animals that are shot by authorities causing lead poisoning. Study on lead levels in the blood of vulture in relation to places with hunting legalization and without and in and out of hunting seasons show a relation with guns and lead poisoning in vultures. The case study example of California condors highlighted that only 22 birds were left in 1987. All birds were captured and kept in captivity but died due to lead containing carcass as America has high hunting rates. Out of the 200 birds in captivity, there are 40 breeding pairs in the Peregrine fund. Another 200 live in wild. There was encouragement to change from lead to non-lead ammunition. In humans, low levels of lead reduce intelligence. Lead affects soil, water and food webs.

Agricultural chemicals are used as pesticides to increase yield. Airplanes spray these chemicals which drift into other environments causing bio-accumulation. Animals die feeding on plants that grown in the soil containing these chemicals. Some examples were given that killed birds like diesel being used to poison cranes in South Africa and the poisoning of 43 cranes in Namibia. Rodenticide affects owls, cats, chicken and dogs when they interact with poisoned rats which cause bleeding and miscarriage. Emphasis was on using alternative methods to safely dispose rodents. People in rural communities have been poisoning animals to eat the meat or sell it in market.

He mentioned how poachers kill an elephant, harvest ivory then poisons the elephant to intentionally kill vultures to avoid giving away their position as vultures will circle dead carcasses. There was mention about a book titled where no vultures fly. He also highlighted how poisoned vultures are used in witchcraft to predict the future and for good luck. Many people believe using animal parts makes them stronger and smarter.

Discussion 2

Martin talked about a case of poachers/hunters sprinkling carbofuran on snails which were fed on by open billed storks. They collected about 300 birds. Others poison rice to kill doves giving examples like Ahero and Mwea rice scheme. He also highlighted that six in eleven poachers don't have families. He talked about a study on lab rats that were exposed to sub lethal dose of carbofuran and exhibited impotency. Another study on children showed that Carbofuran reduced intelligence and affects vision. He talked about poison in the food chain where poisoned grass is fed by livestock which in turn is fed by human. Finally, he cautioned about drugs administered by vets on livestock which then are fed by humans who experience stomach upsets. Daniel mentioned how poverty and ignorance causes' damage to human health as people feed on poisoned animal. Pastoralists need to be educated on bio accumulation of poisons causing death and impotence in cows when they ingest grass and water in the area. He talked about how humans ingest poisoned meat, die and are buried in ground where the poison still remains. James Hassell from ILRI mentioned about the ecosystem services from vultures for livestock benefit, study on anthrax in vultures, poisoning data base, human health database

better than livestock poison, more studies to prove connection between wildlife, livestock and human health in poising.

Lecture 3: Compounds, toxicity and samples

The major toxicants included strychnine (fastest death), Carbamates and organophosphates (affecting the mouth and stomach), Metaldehyde (death in 5-6 hours), Rodenticide, anticoagulants and organochlorines (hours, weeks or days). Poisoning methods included using meat baits, fruit baits like oranges laced with cyanide, poisoned arrows (*Acokanthera*) and poisoning water holes. Carbofuran was made to kill nematodes on plants. It causes death by respiratory failure in animals in 8-18 minutes. Chronic effects include carcinogenic, teratogenic and mutagenic. He talked about primary and secondary poisoning (poisoning of animals that feed on poisoned carcass or non-target species poisoning. integrated pest management was said to be the best method for handling pests.

Lecture 4: Poisoning investigation scene management and prosecution

There was a brief introduction on what poisons are stating that are chemicals either natural or manmade which cause harm effects in a biological system. Many are used in industries, mining, construction, agriculture and households. Pesticides are specific chemicals used to kill specific classes of pets mentioning several types of pesticides. There are various modes of action like oral, dermal, systemic and fumigant. In terms of chemical composition, they can be biological, inorganic and organic. LD50 is the lethal dose required to kill 50% of study population. In the evening, participants watched a short movie called Vanishing Vultures about vulture poisoning in the Masai Mara and what is being to combat the problem.

Day 3: Wednesday 19th September 2018

Lecture 1: Poisoning in mammals

The day was started with a group photo of all participants of the day. Andre then asked participants to recap on signs of poisoning. He then went on to talk about poisoning in mammals with organophosphates being the major poison used to kill animals like dogs, fox, wolf, leopard, lion and hyena.

He then went on to talk about poisoning in mammals with organophosphates being the major poison used to kill animals like dogs, fox, wolf, leopard, lion and hyena. Some signs and symptoms include muscle spasms, sardonic smile (mouth muscle spasm, lips pulled back and canine exposed), straight legs, straight tail, blood spatter, struggle shape on ground ataxia and lack of any attempt to remove flies.

Discussion 1

Nickson suggested that dogs can help prevent poisoning as owners are scared to kill them. Luke said that there are few cases of poaching and poisoning in Amboseli. He mentioned that the Masai culture does not encourage adult men to keep dogs but people use dogs used to track lions and hunt. Abraham explained that there is less predation in bomas with dogs compared to those with none.

Lecture 2: by Simon Thomsett

Treating Poisoned Raptors

Multiple ways poisons effect wildlife in Kenya

Poisons enter wildlife in the cereal/agricultural growing industry both indirectly and on purpose. Government and non-government organizations spray birds that in turn can kill birds of prey in their thousands. The dipping of cattle and use of "Jua Kali" mixes of agro pesticides on shoats to stop fleas and ticks and the deliberate use of poisons on foodstuffs to kill wildlife such as elephant, crocodiles, hippo, seed eaten birds and even vultures for whatever the reason all kill raptors. Even rivers are poisoned such as from tanneries on the Athi River. These differ from much of the current focus on poisons used to kill carnivores and must be considered a similar problem requiring a national focus. Because it is very wide spread and of frequent occurrence an educated and empowered citizen/ local community based approach is needed.

Holding, removing and treating poisoned raptors

Many poisoned raptors can be saved. First arrivals at a poisoning scene are entering a criminal investigation area. However, ignoring still living animals places an individual, whoever they may

be, under ethical and legal obligation to save it. We advise immediate SMS or written message to local KWS, county government, area warden and police prior to any rescue, so that this written document is available as evidence of contact to authority.

We demonstrated the technique for careful and sensitive approaches to holding and restraining raptors, vultures especially. Stress is a major killer and the bird must be captured, handled and removed for treatment calmly and with the least exposure to light, noises, physical handling, wind, cold, heat, bouncing (in the back of a car). We showed brutal pictures of people with captured raptors as approaching criminal negligence, and other kinder methods of handling. Large boxes and dark sheds with no disturbance can be found locally although we recognize that this simple requirement is lacking. We can individually find solutions for this basic of all requirements.

Fluid therapy and drug dosages

When minutes matter there is no time to deliberate the best course of restorative management based on analysis of poison used. We advocate immediate rescue and removal to a warm safe quite place and injection with atropine (easily available in most chemists). Thereafter crop content removal is attempted prior to any oral fluids (that may physically push the poisons into the gut/blood stream), by physically “milking” the contents out and encouraging vomiting. Sub cutaneous injections of fluids and oral homemade remedy (strong tea with crushed powdered charcoal) follow.

A dosage chart was given (see figure 1). These drugs can recover very sick birds with violent tremors if the poison is carbamates or organophospate, but not strychnine and many others. The dosages depend largely on the effectiveness of the prior dose, and thus the therapy varies between individuals. Recovery may take one week.

The bird need not be taken to a center because transport is stressful (unless airlifted). This course learnt from the attendees the need for on-site basic housing for poisoned raptors a matter we take seriously because traumatic movement of 6 to 8 hrs travel is potentially lethal.

Species	kg	Atropine (1mg/ml vial) (every 1-4hrs)			Dexamethasone (every 4 hrs)	Valium/diazepam (as required)
Tawny Eagle	2	0.24mg	1/4cc	½-1cc	2-4mg	.50mg
Bateleur	2	0.24mg	1/4cc	½-1cc	4mg	.50mg
Hooded Vulture	2	0.24mg	1/4cc	½-1cc	2-4mg	.50mg
Rüppell's Vulture	7	0.3mg	1/2cc	2-3.5cc	8mg	.50-1mg
White backed V	6	0.3mg	1/2cc	2-3cc	8mg	.50-1mg
Lappet faced V	8	0.3mg	1/2cc	2-3.5cc	8mg	.50-1mg

Figure 1. Dosages for 6 commonly poisoned scavenging raptors. Red gives first injection which may be followed if the bird shows no sign of recovery. 2-pralidoxime hydrochloride (2-PAM) 10mg/kg has not be used due to difficulty in obtaining it, but is advised.

Lecture 3: by Dr Darcy Ogada

Darcy Ogada gave a brief history of the Stop Poisoning Now project in northern Kenya and the impacts of the poisoning awareness trainings that have been conducted. She highlighted that there is a difference in training rangers and scouts, as compared to training the community. She spoke of the need to have someone who can mobilize the community and to assess how you will measure your impact. At the conclusion of her talk there was a heated discussion about wildlife compensation. Andre talked about international framework and obligation as well as National and provincial legislation, laying charges, data collection and submission, suggested data capture sequence and the importance of planning for poisoning events.

Lecture 4: Planning and data capture

Some necessary equipment was an emergency response kit and a first aid kit. Matters of logistics included transport by air or road. In matters of sample collection, it is important to pass on information, equip the team, linking up with Dr. Limo for sample collection. Storage included liaising with NGOs for facilities, MEP, KWS, and AKTF. Processing strategy was to contact the veterinarian. Live animals are to be given first aid and veterinarian is to be contacted however as one is not always available the county government should provide one. Decontamination strategy requires materials for decontamination like petrol, diesel and a matchbox. There was mention on proper designing of decontamination areas. Data capture and dissemination was to be done by developing standard forms and keeping records of contacts of authorities. Andre advised on the principles to remember at the scene like treating the incident area as a crime scene, not to disturb or enter the scene without authority permission, not moving animals, to get exact location of incident, getting statement of the reporter, calling authorities, keeping other animals away, personal safety and maintaining integrity of the crime scene. On regards to who should attend to the poisoning scene entities like KWS, police, state veterinarians NGOs (to treat and immobilize animals and to collect samples) research personnel and game scouts. In conclusion, there was a discussion on who else can attend if none of these groups are available. There was emphasis on encouraging people to be witnesses in court and documenting everything including unresponsive authorities.

Participant asking questions

Field work

After a briefing, the participants moved to the field where a replica of an ideal poisoning incident scene was set up with some evidence placed around. The participants were divided into two groups, A and B. Each group had a group leader, note-taker, photographer and the rest were spotters. Group B started first standing in a straight-line walking together one step at a time and stopping if something is spotted. They first found the live animal and after recording

its details it was kept in the shade. Next, they found some baits laced with poison along with some bones which were flagged and their details recorded and photographed. Half way of the scene group B left and group A took over following the same method. Finally, a sample was collected, labeled and bagged by Mosses. Both groups missed a crucial evidence; the poison container which was hidden in the grass.

Andre Botha addressing the participants

Day 4: Thursday 20th September 2018

Team exercise: Poisoning Response SOP

Eric organized the participants according to area of work forming 3 groups and each group was named after a vulture species. The participants of each group were provided with flip charts, markers and notebooks to discuss and present under the following subtopics; pre-incident measure, equipment, data capture and dissemination, logistics and live animal strategy.

Participants in Breakout Sessions

Group Presentations

GROUP 1: Hooded Vulture (Amboseli-Tsavo)

The group leader Muterian first started by talking about the pre-incident measure which included creating awareness in groups like local community, KWS, schools, administrations, magistrate and public health. This will encompass a poisoning training. He also suggested visiting sites, comforting and providing consolation funds to HWC victims by government- NGOs partnerships. Creation of community projects that encourage locals to support conservation. The stakeholders and their responsibilities included KWS, police, NGOs, MWCT, lion guardians, big life, community, women, and youth. NGOs -should detect poisoning incidents, record statement from feeders, contact authorities as soon as possible, secure scene of crime, give support in decontamination, security and investigation, recording statements, providing aggravation of evidence, share info with poisoning database, equipment and knowledge to save live animals, warn public on danger of poisoning, carry decontamination materials, KWS-permit

for animal movement, alert vet to come, alert police, provide security on scene, manage the scene of crime, collect samples and handover to police who take to labs. Equipment included an aircraft, motorbikes or cars for transportation and communication devices to contact people. The logistics involved included sample collection, the chain of custody of the samples collected, cooling of sample and transport to Nairobi. Strategy for live animals was equipped with proper gears, maintaining a safe distance, exercising caution, ensuring only experts handle live animals, interventions by a veterinarian, moving live animals to the shade, monitoring till recovery and moving to a treatment center. The decontamination plan included bringing all carcasses together and taking pictures, recording data and collecting evidence then burning them with fuel carefully and safely. Their data capture included cyber trackers, national data base and a standard questionnaire form.

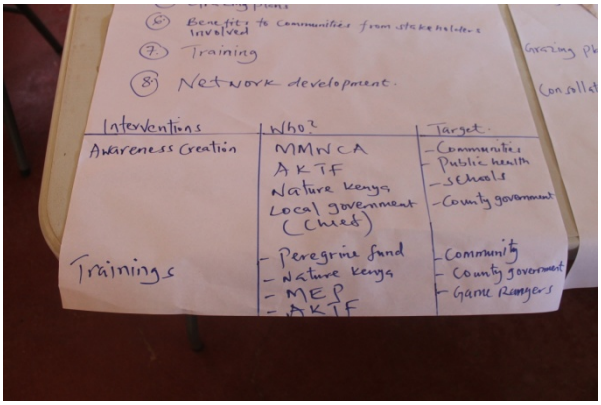
GROUP 2: Egyptian Vulture (Central South Rift)

Their mitigations included training and education of several groups such as NGOs like Soralo and the wildlife foundation, field officers, rangers and scouts, using films in schools, organized groups like youth and women and community in general. People should be encouraged to report poisoning cases. The group leader encouraged reducing HWC using lion lights, lion proof bomas and early warning systems in predator hotspot areas. By empowering the community using ecotourism and other business ideas conservation interest are gained. The Incident response included immediate response, liaison officer or scouts informing relevant authorities and the clear chain of command. Prosecution was said to depend on how well authorities play part in making a good case. The equipment needed include-motorbikes, petrol/diesel, GPS, cooler box, camera, projector and a laptop.

Group 3: Lappet-faced Vulture (Mara and environs)

The group leader talked about Identification of hotspot like Maji Moto and Mara west. The group's mitigation strategies included improving bomas, awareness creation, consolation scheme, security lightings, grazing plans, benefit to communities from stakeholders, training and network development. Elias talked about awareness creation by Maasai Mara Wildlife

Conservancies Association, Anne Kent Taylor Fund, nature Kenya and the area chief. He said the target audience would be community, public health, schools and county government. Organizations involved in trainings included peregrine fund, nature Kenya, Mara Elephant Project and Anne Kent Taylor Fund. He said it was essential to build predator proof bomas and suggested organizations like World Wildlife Fund and Anne Kent Taylor Fund to implement this.



3. Follow up

Certificate issuing

Certificate issuing begun with Andre Botha who then handed over to Nickson and Paul to continue.

Vote of thanks

This was given by Muterian from Maasai Wilderness Conservation Trust who thanked the workshop organizers and its partners, all the presenters, participants and the lodge for a successful event.

Closing remarks

The workshop proved to be fruitful with positive reviews recorded in the evaluation forms. Individuals believed they are well equipped with knowledge and skills to properly manage a poisoning scene; however, participants requested refresher sessions to practice. Participants said they will ensure to spread this knowledge by conducting talks, workshops, Barazas and

meetings to equip other conservationists with the proficiency to manage poisoning incidents as well as to prevent them.

Annexure A List of Workshop Participants

Organization	Name of representatives	Contacts
The Peregrine Fund	Munir Virani	virani.munir@peregrinefund.org
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Assistant Kishermoruak	Kelvin Letoluo	0710136943
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	Peter Sereny	0745015698
Nature Kenya	Rebecca Ikachoi	0725248351
Masai Wilderness Conservation Trust	Muterian Ntanin	0708398143
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Annexure B Training Program

Date: 17th September 2018 Day 1

Time	Topic/Activity	Location	Requirements
08:00 – 08:30	Registration & Admin	Lecture room	Pens & Notebooks
08:30 – 09:15	Introduction & Discussion of training scope & process	Lecture room	Pens & Notebooks; Projector, Screen
09:15-10:30	Lecture: Wildlife Poisoning – Scope of the threat, Impact and Drivers	Lecture room	Pens & Notebooks; Projector, Screen
10:30 – 11:00	Tea		
11:00 – 13:00	Lecture: Wildlife Poisoning – Scope of the threat, Impact and Drivers (continued)	Lecture room	Pens & Notebooks; Projector, Screen
13:00 – 14:00	Lunch		
14:00 – 15:30	Lecture: Chemicals often used in Poisoning of Wildlife (Trade names, characteristics, specified use, etc.)	Lecture room	Pens & Notebooks; Projector, Screen
15:30 – 16:00	Tea		
16:00 – 17:00	Lecture: Symptoms/Signs of poisoning in wildlife – how to identify a poisoned animal/bird	Lecture room	Pens & Notebooks; Projector, Screen

Day 2

Time	Topic/Activity	Location	Requirements

08:30 – 10:30	Lecture: Poisoning Scene/Incident Management and Investigation	Lecture room	Pens & Notebooks; Projector, Screen
10:30 – 11:00	Tea		
11:00 – 13:00	Lecture: Poisoning Scene/Incident Management and Investigation (Cont)	Lecture room	Pens & Notebooks; Projector, Screen
13:00 – 14:00	Lunch		
14:00 – 15:30	Practical: Scene Assessment and Investigation	Field site	Notebooks, Pens, Camera, Poisoning Response Kit, Carcasses
15:30 – 16:00	Tea		
16:00 – 17:00	Practical: Scene Assessment and Investigation (Continued)	Field site	Notebooks, Pens, Camera, Poisoning Response Kit, Carcasses

Day 3

Time	**Topic/Activity**	**Location**	**Requirements**
08:30 – 10:30	Lecture and Practical: Scene decontamination and clean-up, Occupational health & Safety	Lecture room	Pens & Notebooks; Projector, Screen
10:30 – 11:00	Tea		
11:00 – 13:00	Lecture/Discussion: Drafting and implementing a Poisoning Incident Intervention Plan	Field site, Lecture room	Notebooks, Pens, Camera, Poisoning Response Kit

13:00 – 14:00	Lunch		

Annexure C Workshop Evaluation Report

The workshop was held from 17th to 20th September 2018 at Swara Plains, Acacia Camp, Athi River, Kenya. A total of 35 participants attended and 21 filled in the evaluation form. The evaluation form included seven questions of which six were closed-ended questions and 1 was both open and closed-ended. Analysis regarding the opinion of the training revealed that 90% of participants felt the experience was very good, while 10% found it just good. Analysis of the difficulty of the workshop showed that 81% found the workshop just right while 14% found it too easy and 5% found it only just doable. Results also showed that 100% of the participants found the training to be relevant to their work. With regards to food and accommodation quality 90% found the quality very good while 10% found it just Good. Twenty-four percent found about half of the course material new and to another whilst for 24%, only a few things were new. Fifty-two percent found most things new during the training. Ninety-five percent were convinced that they have the right skill and knowledge to deal with a poisoning incident while 5% were not sure. Ninety percent of the training participants would recommend the course to others exactly the way it is. Ten percent would also recommend the course to others but with some changes like adding a component of being proactive in preventing poisoning and having more and well-structured working group sessions.

Various participants gave positive reviews on the workshop and facilitators. A major recommendation was expanding this training to include more scouts, public health personnel, KWS, police, community leaders, people in areas like Osilalei, Matapato, major National Park and Reserve stakeholders and people in poisoning hot spot areas. Some participants also recommended that the practical training of incident management be carried out often with refresher courses. Another recommendation was to customize the workshop to suit the needs of the specific stakeholders by presenting the training in local languages in rural population. Other recommendations included creating a poisoning database in every conservation organization, developing a poisoning response training committee to expand and oversee poisoning and an evaluation plan for the workshops as well as follow ups.