



**HUMAN DIMENSIONS
OF NATURAL RESOURCES
COLORADO STATE UNIVERSITY**

Messrs. Ahmed Mohamed and Abdinasir Hussein
Somaliland Ministry of Environment and Rural Development

Post -Training Report
Prepared by Patricia Tricorache
11-17 January 2018

Introduction

From January 6 to 8, two wildlife officials from the Somaliland Ministry of Environment and Rural Development (MERD): Ahmed Mohamed and Abdinahir Hussein, joined 44 trainees from 13 African countries in Windhoek for an immersive learning experience designed to enhance their professional skills. The training was followed by the 3-day Pathways Africa Conference, where over 150 scientists and practitioners explored human dimensions science and its applications in fish and wildlife conservation. Read about it [here](#).

Once we said farewell to many of the trainees and conference participants, the MERD officials travelled to the Cheetah Conservation Fund's International Research and Education Centre (CCF) near Otjiwarongo for post-training especially designed for them, along with a Namibian ecologist and four representatives from ACK (Action for Cheetahs in Kenya).

The post-training program, which included presentations and practicals led by CCF's expert staff, was carefully designed so that the trainees could witness all that they learned during the sessions in Windhoek, as well as many aspects specific to cheetahs and CCF's programs, most of them scientifically designed to prevent or resolve human-wildlife conflict. Our belief is that we can only succeed if everything we learn through scientific research is incorporated into programs that are then available to the communities that share the land with wildlife.

Human-Wildlife Conflict

CCF addresses the importance of reducing human-wildlife conflict by working with the farming community to help livestock farmers find ways to co-exist with cheetahs without jeopardizing their livelihood. For this purpose, CCF utilizes its extensive scientific research to create and implement education and conservation programs that provide farmers with knowledge and tools that can help them reduce livestock losses and increase productivity. CCF also actively encourages the formation of conservancies that carefully manage and take care of their wildlife, so that communities can have a basis through which natural resources and



community-based tourism ventures can be managed. Consequently, the group was given an introduction to Namibia's conservancy system (photo left), which has proven to be so crucial to achieve Namibia's status as a conservation model in Africa, where government, communities and NGOs work together to achieve sustainability.

Trainees were exposed to additional approaches CCF utilizes to reduce human-wildlife conflict, including livestock management, as well as the ability to identify causes of livestock losses.

Livestock Management

One of the approaches CCF utilizes to reduce human-wildlife conflict is the implementation of sound management practices to increase livestock production, including health and disease management, accurate record keeping, and range management.

The trainees spent time at CCF's Model Farm, learning about our Livestock Guarding Dog Programme, which along with well-managed herds, has proven to significantly reduce livestock losses. They also witnessed the usefulness of sound management practices such as breeding/calving seasons, kraaling, hoof trimming, and some basic concepts of veterinary care for proper livestock and guarding dogs. In Namibia, farmers who apply integrated livestock and predator management techniques and tools have observed a reduction in losses of between 80 to 100%.



Above: Livestock management and care in the classroom and on the farm. Below: Trainees learn about the CCF Livestock Guarding Dog Program working at CCF's Model Farm and about dog care and management.



Identifying and Preventing Livestock Losses

Livestock losses can be attributed to various factors such as predation by wild animals or stray dogs, disease, theft or livestock management that needs improving. To this end, the trainees participated in predator kill ID exercises to assist in cases of livestock predation; another very important tool in human-wildlife conflict resolution. In the case of predation by wild animals, it is important to understand the role that predators play: their diets and how their way of life overlaps, and to ensure that techniques to manage predators are not detrimental to an entire target species, or any other species. During this section of the training, participants learned how to determine what killed the livestock including identification of spoor, bites and general aspects of a kill. Scat is also a valuable tool, and CCF utilizes dogs especially trained to detect cheetah. The trainees witness a demonstration of how Levi, CCF's cheetah scat detection dog, searches and signals when successfully finding cheetah scat in the bush. The scat can then be analyzed for hair, which in turn can reveal what a cheetah has been eating and thus determine whether an animal is eating livestock or wild prey.

Other experimental techniques currently used in Kenya to deter predators from entering a *boma* or *kraal*, include the use of lights, e.g., Predator Guard, LEDS and FoxLight.



Above: (Left and Center) Trainees learn predator identification techniques. (Right) ACK Director discusses the use of lights as a potential predator deterrent. **Below:** (Left) CCF's scat-detection dog demonstration. (Center and right) MERD trainees learn how to identify hair found in cheetah scat samples as a tool to learn about diet and kill identification.



Cheetah Genetics

Cheetah scat is also a tool to extract the DNA of a cheetah. The trainees visited the CCF's Genetics laboratory, where they learned about the importance of research into cheetah genetics. Through DNA, it is possible to better understand the species and to eventually build a broad enough DNA database that will assist enforcement officials with cheetah trafficking investigations around the world.



***Above:** (Left) Trainees return to the CCF Centre after the cheetah scat-detection team demonstration. **Below:** The CCF's genetics lab team explain the functioning of CCF's Genetics laboratory.*



Cheetah Health and Husbandry

Cheetah health and husbandry are a crucial part CCF's work given the 30+ cats which must remain in captivity under our care, either for the short or long-term. This is particularly important if we are to train people involved in confiscations in Somaliland to identify and provide first care to confiscated cheetah cubs. As such, our trainees joined the CCF Cheetah Husbandry team to learn about cheetah behavior and care, including the importance of a proper diet and enclosure maintenance, from cleaning to checking the integrity of the fences, as well as enrichment and exercise.



Above: CCF's Carnivore Husbandry Team demonstrate cheetah nutrition from food storage to preparation and serving. **Below:** (Left) Abdinasir observes a cheetah being fed. (Center) Cage feeding of an older cheetah with special needs. Captive cheetahs at CCF are trained to enter and trust the cage as a method to have access to the cheetah without darting when veterinary care is required. (Right) Fencing of cheetah enclosures at CCF. All fences are 2.40 m high and electrified. Fences are checked daily for any damage caused by digging animals to prevent escape.





Above: The “Cheetah Run” is a way to exercise CCF’s resident cheetahs to keep them healthy. The “Run” has also become one of the main attractions for visitors to the CCF’s International Research and Education Centre. (Left) Trainees learn how the running lure works. (Center) Visitors observe the cheetahs run inside the safety of a cage. (Right) Cheetah running at approximately 60 km/hour. A cheetah can reach speeds of up to 110 km/hour.

During the training, the CCF Veterinary team scheduled a procedure on one of CCF’s resident cheetahs who had showed discomfort on its face. In order to reduce stress to cheetahs by capturing them more than necessary, CCF performs a full health checkup whenever a veterinary procedure is required. Consequently, the trainees were able to observe an entire process, from capture in a cage to the workup and post-op.



Above: (Left) Visitors are briefed on the procedure that will be performed on a cheetah. (Center) A cheetah in a cage ready to be injected with an anesthetic. (Right) The cheetah is almost ready to be taken to the clinic. **Below:** (Left) Trainees and staff carry the anesthetized cheetah to the CCF Veterinary Clinic. (Center) The cheetah is weighed by one of CCF’s veterinarians. (Right) The cheetah is moved to the operating table at the Clinic.





Above and below: The veterinary team carries out a dental procedure and takes measurements, as the trainees are given the opportunity to participate. The anesthetized cheetah is then placed in a wooden crate and observed until it is fully awake (bottom right).

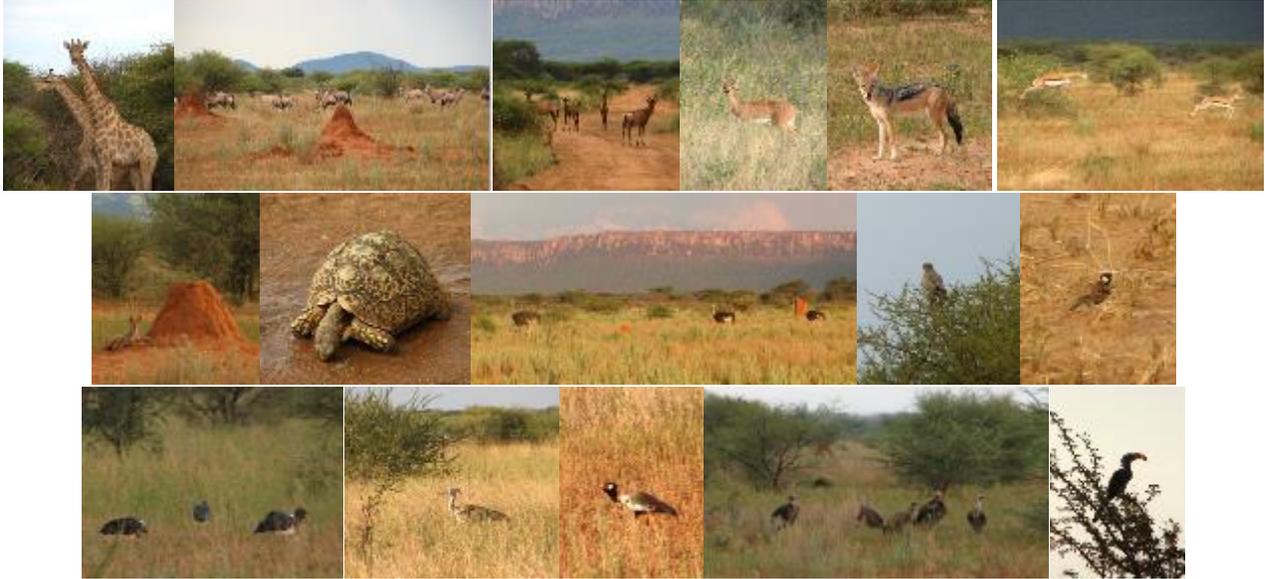


Bio-Diversity

Namibia's bio-diversity is world famous due to the country's intelligent approach to conservation. Visitors from countries where wildlife has been heavily depleted due to factors such as poaching, overgrazing and climate change, are always impressed by the amount of wildlife living free in Namibia. Our ecology team explained to the trainees the importance of monitoring wildlife through game counts, as well as censusing techniques using cameras or radio collars and other tracking techniques. The trainees will return home having witnessed conservation in action, and with a better understanding of the importance of healthy ecosystems, which are so beneficial both for people and wildlife.



Above: Trainees go on a "game drive."



Above: Trainees enjoy Namibia's rich bio-diversity as they encounter a wide variety of mammals, reptiles, and birds.

Human Dimensions

Throughout this training, we were privileged to have Dr Alistair Bath, of Memorial University in Newfoundland, Canada. Dr Bath is an experienced lecturer and facilitator, with a deep knowledge of human-wildlife conflict and human dimensions in natural resource management issues. With his facilitator's skills, he guided us through various procedures that allowed participants to end the training with a clear pathway on the work that needs to be done in their respective areas of responsibility. The trainees left CCF with specific tasks and deadlines, and Alistair kindly offered to continue guiding them through the process of achieving implementation.



Above: (Left) Dr Bath and CCF's Executive Director, Dr Laurie Marker, brief trainees. (Center) Dr Bath guides trainees through workshop exercises. (Right) SMART Objectives (Specific, Measurable, Attainable, Reasonable, Timed)

Thank you!!!



Above: Patricia Tricorache, Abdinasir Hussein, Dr Alistair Bath, Ahmed Mohamed, Dr Laurie Marker.