

O V E R V I E W
2005 year-end

Cheetah Conservation and Human Impact in Kenya

Mary Wykstra

Cheetah Conservation Fund, Kenya Representative

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INTRODUCTION

From 2001 through July 2005 the Kenya project team was based on the Delamere Estates (DE). It was the support of the Delamere's and other friends on Soysambu - especially Tom and Sally Cholmondely and the late Simon Combes and his wife Kat, which allowed CCF to work within the network of Kenya farming communities. Bad roads, the need to be closer to the Kiu project(s) site triggered finding a new home base in Nairobi. It was with a heavy heart that CCF Kenya made the decision to leave the Soysambu Ranch. CCFK base of operations is now in the Mt. View Estate just 3km north of Westlands, Nairobi. CCF Kenya continues affiliation with the Kenya Wildlife Services (KWS) under a permit through the Ministry of Education and Technology through 2007. Kenya Representative, Mary Wykstra, and Research Assistant, Cosmas Wambua, represent the Cheetah Conservation Fund (CCF) in conducting research and education projects. Lumumba Mutiso works for CCF-Kenya (CCFK) as the Community Liaison Officer in the Machakos Wildlife Forum. A case study in the Machakos Wildlife Forum (MWF) was launched in January 2004 utilizing community participation in cheetah monitoring and as of March 2005 includes telemetry monitoring of a case study female. A nation-wide cheetah census was launched in cooperation with KWS and East African Wild Life Society (EAWLS) in July 2004 with completion of the report for the first phase of the study in July 2005.

ORGANIZATIONAL STRUCTURE

Under the umbrella of CCF Namibia and Dr. Laurie Marker, Mary works in cooperation with Kenya Wildlife Service (KWS) and under advisement of CCF. Grants and donations specifically designated for Kenya are channeled through the General Operating Budget of CCF Namibia by the Cincinnati CCF administration offices for Kenya designation.

BASE OF OPERATIONS

CCFK Operations is based in Nairobi with field operations in Salama and throughout Nation-wide Census work in the Central and Northern districts of Kenya (Priority 2 and 3 areas).

ACCOMPLISHMENTS

The list of accomplishments from 2005 for the Kenya project includes:

- Final report completed on interviews and habitat analysis Machakos Wildlife Forum (MWF).
- Final report completed on interviews and habitat analysis Laikipia Wildlife Forum (LWF).
- Nationwide census and awareness programs in collaboration with KWS and EAWLS, Priority 1 region completed and final report generated.
- Strengthen inter-Africa links through attending the Census Workshop with EAWLS and KWS representatives.
- Coordinated Cheetah and Large Carnivore Workshop 8-10 February 2005
- Environmental Education Program development through several programs, presentations and event participation.
- Ongoing Great Cheetah Census, Snap-A-Cheetah and Cheetah Expressions programs.
- Organize photo census database for program analysis.
- Ongoing presentations to tourists through local and international tour operators.
- Ongoing case study and initiation of radio tracking of problem cheetah in the MWF.
- Initiation of community development activities in livestock management and craft projects.

RESEARCH

National Census

The current status of cheetah is needed on which to base long-term program development in Kenya. While information on behavior and demographics is interesting and necessary for cheetah survival, we cannot apply conservation actions until we know cheetah numbers and where our efforts will have the most impact on the future of cheetah survival. Phase 1 of the nation-wide cheetah census project, in affiliation with KWS and EAWLS was initiated in July 2004, covering ¼ of Kenya through literature searches, driving transects and KWS conflict analysis. The Region evaluated included the Nakuru, Narok and Kajiado districts from the Mombasa/Nakuru Highway to the Tanzanian border. The second phase was initiated in November 2005 focusing first on the Laikipia, Samburu, Isiolo, and Voi (Tsavo East) regions. The KWS conflict data will be used to determine field sites for 2006.

Human Impacts on Cheetah

Land use changes and an increase in human population and activity levels through out Kenya affect land use by wildlife. While pocketed populations of game are still strong on large commercial farms and on unsettled public land, these populations are changing over time. Subdivision of land, disease, human-wildlife conflict and poaching has reduced prey base throughout unmanaged ranchland. Livestock loss to cheetah is typically viewed as a minimal threat compared to that of lion, leopard, jackal and hyena.

The case study in the Kiu region of the MWF allows the opportunity to identify the pattern of cheetah movement and livestock losses due cheetahs in the region that have been opportunistically killing goats and sheep since August 2002. This problem provides CCFK with the opportunity to involve community members in research and awareness of cheetah. Herders and managers assist in recording cheetah sightings. Telemetry studies were initiated in March 2005 when a family of 6 cheetahs killed a calf on a commercial ranch. The collared family had been tracked through dense vegetation, steep hills and areas of high human settlement - thus challenging the traditional thoughts of cheetah movement and habitat preference.

The female gave birth to 4 cubs in August 2005. As she crossed the Mombasa Highway two of the cubs were killed on the road. As of December 2005 she still remains with 2 cubs. Through this monitoring we have become more aware of the impact of this highway on the cheetah population of the region, as there have been 5 cheetah deaths on a section of about 15 kilometers since 2003. Additionally two cheetahs were killed in poachers' snares and 2 have been reported to have been killed by herders.

Two awareness programs assist in determining cheetah distribution:

GREAT CHEETAH CENSUS requests tourists to submit photos of cheetah to assist with individual identification. Over 2000 brochures were dispersed into lodges and 2000 laminated brochures into tourist vehicles. CCFK maintains a database of over 800 photos, with more submissions being entered as they arrive.

SNAP-A-CHEETAH requests participation from community individuals in remote areas. Throughout CCFK studies it has been difficult to know if people have seen cheetah or leopard. While questions about the animal behavior have frequently assisted in determining what cat has been seen, it often leaves CCFK with undetermined results. CCFK initiated distribution of 500 one-time use cameras into rural areas and requests the submission of photos including cheetahs, other wildlife, livestock losses and general habitat. Prizes for participation encourage the return of the cameras and prizes for best photos of cheetahs will aid in awareness of cheetah presence. The 40 test cameras distributed in 2005 have resulted in less than a 50% recovery rate of the camera.

A new distribution method is being evaluated and the need for financial reward for participation is needed.

Ecosystem Research

The main focus of CCFK's research in Kenya is the assessment of farmland ecosystems for the long-term habitat viability for the cheetah. Information from Wildlife Forum interviews and Census data can now be combined to determine areas in need of further evaluation and areas of model programmes for supporting sustainable cheetah habitat.

Predator Conflict with Cheetah

In other studies throughout Africa it is known that cheetah are negatively affected by conflict with other predators. Interviews show that there are perceived to be problems with large numbers of hyena and leopard in the NWF and MWF and large populations of lion, leopard and hyena in LWF. Linking with the other large carnivore programs allows the monitoring of the effects of other predators on cheetah populations. Affiliations with KWS include predator conflict data searches and access to data on predator numbers within and around KWS managed National Parks.

Biomedical sampling

Ongoing cooperation with the KWS in protocol for biomedical sampling (blood, hair, skin), knock down (tranquilizing) procedure, necropsy procedure and measurements of cheetahs.

Education

Eco-tourism

Presentations continue through a number of tourism organizations including US operators Classic Expeditions, World Discovery Safaris and FunSafaris, and Kenya operators JH Safari, Origin Safaris and Vintage Africa. CCFK staff remain members of the Kenya Professional Tour Guides Association as bronze members. Ongoing work with tour groups and the association raise the awareness of the plight of cheetah in Kenya.

School Education

An art and creative writing contest, *Cheetah Expressions: Living in Harmony with the Cheetah* held in 2004 resulted in over 400 entries. Representatives from eight regions (Nakuru, Bagoria, Laikipia, Samburu, Wajir, Tsavo West, Machakos and the Masai Mara) requested varying numbers of schools to submit for the competition. The pieces selected by judges were distributed to the US and UK and have been on display in a variety of venues including the Cranleigh Arts Museum, schools and museum in Middlebury Vermont, Binder Park Zoo, Utah's Hogle Zoo, and the Children's Museum of Memphis.

Local and International volunteers developed a draft of a Kenya teaching workbook and activity pamphlet for Kenyan schools. Editing and evaluation of the book will continue in 2006. Teacher workshops will evaluate the materials and funding will be sought for publishing materials for distribution in Kenyan Schools.

Community Development

CCFK works with the Kiu community in tracking and identifying cheetah in the southern region of the Machakos Wildlife Forum. Community meetings are held to discuss dealing with the problem cheetah in the area. Proposals for programs dealing with livestock dips, insurance/compensation, crafts and water issues are being developed with the CCFK Community Liaison Officer. Community

Cattle dips improvements aim to reduce parasites on livestock and allow CCFK to collect information on livestock health while sharing information on cheetah conservation.

Through interaction in a large number of communities CCFK has developed a relationship with a number of craft persons. CCF has initiated a program in *Cheetah Country Kenya Crafts*, developing styles, colors and patterns for crafts specifically to raise funds for cheetah research in Kenya. The products were well received at the American Zoo and Aquarium Association and American Association of Zoo Keepers annual conferences in 2004 and 2005. A business plan is being developed with an expected merchandise launch in 2006

Higher Education

CCFK continues its relationship with the St. Lawrence University programme in Kenya. Lindsey Seefeld and Becky Timbers conducted their four-week Independent Field Study by assisting CCFK with MWF cheetah tracking, data input and interview analysis. Michigan State University interns Crystal Morris, Kelly Orris and Jennifer Jones received undergraduate credits for 8,12 and 14week internships respectively. These students assisted in developing the photo library, edited project reports, assisted in grant writing and developed screen saver and calendars for fund raising sale products for 2006. The University of Erlangen-Nürnberg in Germany is also developing an internship program for undergraduates with Melanie Dopfer being the first participant.

Cosmas received a scholarship from ESRI and a grant from the Disney Fund for continuing education in mapping through attending courses in the US in July. Course work is being applied to CCFK activities through computer, software and written materials granted through follow-up after completion of the course work. Other mapping experts from Kenya have set goals for information sharing and joint projects in the mapping of information, which will benefit research and policy making on environmental issues.

Volunteer Programme

Reduced Travel Warnings have resulted in increased interest in intern and volunteer programs in Kenya. Melanie Dopfer (Germany) volunteered from January through March. Liz Larsen (USA) volunteered in Kenya and became the Utah CCF Chapter representative and liaison in initiating volunteer and fundraising programs within the American Association of Zoo Keepers. Major John Ritter assisted in April by involving the US Embassy in de-snare activities in MWF. Jonathan Ward of CCF Canada and Sandy Ball, long-term CCF volunteer and supporter, visited the Kenya project. From the Netherlands, Anouk Vastert and Rein van Vliet volunteered to assist CCF in the ongoing development of education materials and the Lapidaire family (Nancy, Hein Maxime and Melony) has assisted in the development of CCFK support facilities. Susanne Garrison continues with voluntary and financial support through craft sales and education interests. Jenny Barnett of Binder Park Zoo and Carol Gault of Pfizer Drugs assisted in community activities and information gathering for the next phase of census work. Local Kenya residents Amanda Perret, Alex Joji and Cheryle Robinson continue assisting with education materials, program development and fundraising activities. Interns, Milkah Njoki Kahiu and Wallace Isaboke, from East African Wildlife Society assist with the census project.

BENEFITS TO KENYA

The evaluation of interview data collected in the first phase of CCFK work in Kenya shows a clear distinction in predator attitudes, land use and cheetah numbers in the three different Wildlife Forums. The number of research programs and education activities varies within the forums, hence it is clear to see what awareness can do for conservation. Human activity levels also vary between the forums in the form of land use and land fragmentation also giving a clear picture of the need for land use policies. Game numbers vary within each forum and do not appear to be as strong of a limiting factor in cheetah presence

as the human activity levels. The data and reports that are available to the Forums and KWS can be used in policy decisions.

Telemetry of the problem cheetahs in MWF assists with policy development for problem cheetah control. Additionally the visual sightings of cheetah habitat use are showing remarkable adaptations in land use and prey preference in an area of increasing land fragmentation.

The launch of the cheetah census program with EAWLS and KWS promotes a stronger base for claims of declining cheetah populations. The census will identify areas for long-term cheetah conservation programs and can be used in policy decisions on translocation and problem predator control.

The development of programmes for schools and tourists directly benefit the recipients, but will also indirectly benefit those with whom the recipient shares the information. The success of the *Expressions* contest has resulted in increased interest on cheetahs in the areas of participation and a general international awareness through the traveling display.

Tourism is one of the largest revenue generators in Kenya, and cheetah are one of the key species that people come to see. The people of Kenya will only benefit from their relationship with tourists if the key animals continue to thrive.

PLANNED KENYA ACTIVITIES - 2006

CCF Kenya will:

- Conduct ongoing nation-wide cheetah population trend analysis with KWS and EAWLS in Central and Northern Kenya and utilize the information to develop focused projects for the benefit of the cheetah.
- Continue the development education and awareness programs for primary, secondary, adult and tourism sectors.
- Continue development of local and international student intern programmes.
- Evaluate information on cheetah sightings throughout Kenya using submissions from the “Great Cheetah Census” campaign
- Establish focal areas for the “Snap-A-Cheetah” campaign.
- Continue development of biomedical sampling and measurement protocols in cooperation with KWS for nation-wide use.
- Participate in Large Carnivore Working Group to promote links with other predator projects in Kenya for the benefit of ecosystem preservation.
- Continue linking Kenya research with the goals of the Global Cheetah Master Plan.
- Monitor case study cheetahs in the Machakos Wildlife Forum and link monitoring program with Global Satellite to Mobile network technology.

CCF KENYA RESEARCHERS

MARY WYKSTRA – CCF Kenya Representative

Mary has been working with wildlife her whole life. After studying pre-veterinary medicine at Calvin College in Grand Rapids, Michigan from 1982 to 1984, she received a B.S. in Zoology with a concentration in Animal Behavior from Michigan State University in 1987. After college, Mary worked as a Zoo Keeper at Binder Park Zoo in Battle Creek, Michigan. In 1989, she moved to Salt Lake City and worked at Utah’s Hogle Zoo as an Exhibit Technician responsible for fabrication of enclosures for a large variety of animals ranging from insects to elephants. In 1992, she was promoted to Exhibits Curator and duties were expanded to design the enclosures and supervise construction and renovations.

In 1998, Mary became involved with the Cheetah Conservation Fund (CCF), chairing a zookeeper initiated fundraiser event. This event (the Cheetah Cha-cha) is now an annual event at Utah's Hogle Zoo. In 2000, Mary moved to Namibia for six months to work as coordinator for the design and construction team of CCF Namibia's Education Centre. In 2001, she returned to Namibia and spent another six months as a Research Assistant assisting in all aspects of cheetah care and research at the facility.

In December 2001, Mary was appointed the CCF Representative in Kenya and launched a study of farmland issues affecting cheetah in Kenya. Utilizing information gathered from interviews with farmers and land managers in the Rift Valley region, this project aims to develop solutions to cheetah-human conflict issues. Mary is in close communication with both CCF Namibia and the Kenya Wildlife Service, in the attempt to establish cooperation in understanding cheetah status in Kenya and developing programs in conservation and education.

COSMAS M. WAMBUA – Research Assistant, CCF Kenya

Cosmas was born in April 1975 in Machakos, Kenya. After graduating with a Bachelor of Science degree in Biology from Dr. B R Ambedkar University (Agra) in India, Cosmas volunteered with the Kenya Wildlife Service (KWS) for two years. His main duties involved mapping (GIS), vegetation mapping and animal census in various parks throughout Kenya.

In February 2002, Cosmas joined the Cheetah Conservation Fund (CCF) - Kenya team as a research assistant. He now assists with data collection, data entry and analysis, and the development of education programs. He continues to utilize his knowledge of mapping to assist the Nakuru Wildlife Forum and CCF through mapping and vegetation analysis to aid in understanding the status of cheetah habitat outside of protected parks.