



**CONSERVATION STRATEGY
FOR THE
LONG-TERM SURVIVAL OF THE CHEETAH**

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INTRODUCTION: VISION AND MISSION

Founded in 1990, The Cheetah Conservation Fund's (CCF) mission is *to be an internationally recognised centre of excellence in research and education on cheetahs and their eco-systems, working with all stakeholders to achieve best practice in the conservation and management of the world's cheetahs.*"

CCF undertakes scientific research regarding cheetahs and their habitat, publishing scientific papers and sharing findings internationally via conferences and the press; assists in the management of captive and free-ranging cheetah throughout the world; maintains a major public conservation awareness and education programme for local and international communities and school groups from primary through college education; and conducts community conservation and predator conflict resolution programmes.

CCF's base of operations is 44 km outside Otjiwarongo, Namibia, as Namibia is home to the largest number of free-ranging cheetah with +/-20% (+/-3,000) of the world's population. The cheetah's survival depends on a total integrated approach: an ecological system of farmland management, prey species management and habitat stability using practices such as alternative land management, non-lethal predator control and relocation of problem cheetahs. CCF's Namibian focus is to work with livestock farming communities in order to develop ways to reduce conflict. This is achieved by devising a conservation plan that secures habitat for the species, while still accommodating farmers' land use needs.

What makes CCF unique and different among other similar facilities focusing on species survival is its geographical location within the largest population of cheetah and the pioneering of an integrated approach to research, conservation, and education. Subsequently, other facilities have adopted many of CCF's groundbreaking programmes and practices. CCF combines a world-class field research facility with a specialised veterinary clinic, an education and visitor centre, and a model livestock farm.

I. ORGANISATIONAL STRUCTURE

The Cheetah Conservation Fund is an international organisation with registered not-for-profit organisations in Namibia, the United States, Canada, the United Kingdom, Netherlands and Japan. In 1991 CCF became a Namibian Voluntary Trust and in 2002 the registration of the Cheetah Conservation Fund as a not-for-profit Namibian Section 21 Company, was completed. CCF's Namibian Board of Directors is comprised of leaders in the local community, business and agricultural sectors. Additionally, there is an International Scientific Board of Advisors that assists in planning and advising on research projects. CCF's Executive Director, Dr. Laurie Marker, is assisted in the management and operations of CCF by a core professional staff. Short-term volunteers and students assist with daily operations and data collection.

CCF's International Research and Education Centre is the base for all CCF's activities. The Centre includes the farms Elandsvreugde, Osonanga, Boskop (Khayam's Kopje), Cheetah View, Bellebeno and Janhelpman, totalling 39,000 hectares. The farm base is in prime cheetah habitat and a wildlife-friendly area, with neighbouring farmers that believe in conservation ethics.

CCF is an active member of the Waterberg Conservancy, which encompasses over 175,000 hectares of private farmland surrounding the Waterberg Plateau Park - a national game park dedicated to rare

and endangered species. The Conservancy's farmers cooperatively manage the Conservancy's wildlife for long-term sustainability, which in turn provides habitat and a prey base for the cheetah. This large prey population is important for the cheetah population and helps the farmers to see that they can live harmoniously with cheetah.

II. RESEARCH

In 2007, CCF continued working towards achieving its research objectives, with research conducted on gastritis and renal disease in cheetah. CCF continued to strengthen collaborative efforts with experts in the area of veterinary medicine.

A. POPULATION BIOLOGY

During 2007, CCF conducted 109 bio-medical work ups on cheetah – of which 38 (22M.16F) were on wild caught individuals. Between January and June 2007, CCF worked on 69 (28M.41F) cheetahs. Of those, 20 cheetahs (12M.8F) were tagged and released back into the wild, 12 (4M.8F) were kept at CCF due to their young age or health problems, and 37 (17M.20F) were captive animals receiving annual physical exams. In the second half of 2007, CCF worked on 40 (16M.24F) cheetahs. Of those 5 (5M) were tagged and released back into the wild, 1 cheetah (1M) was kept at CCF due to young age (Little C), 1 wild female was euthanised due to a broken neck, and 33(23M.10F) were CCF captive animals receiving annual physical exams, check ups or taking part in CCF/Smithsonian Institute's (SI) reproductive study.

Most of the wild cheetahs that were tagged and released during the first half of 2007 were caught in game camps. Six wild cheetahs were held as tourist attractions on a game camp for over five months without a legal permit. CCF was asked by the Ministry of Environment and Tourism to assist them in confiscating these cheetahs. By the time CCF received them, these cheetahs were about a year old and were suffering from malnutrition, a lack of exercise and lack of sunlight. As a result, these cheetahs had calcium deficiencies that were affecting normal bone and limb growth. To rectify this deficiency, the cheetahs were put on an extra calcium supplement diet, and during the year their deficiencies have been corrected. An additional nine (7M.2F) cheetahs were confiscated from the same farm in June. MET, AfriCat and CCF combined forces to remove the cats from the farm, and eight (7M.1F) of the animals were tagged and released back into the wild in the Gobabis area. One female cheetah was only one year old and was not with her mother. Since she was too young to hunt and live by herself, she was brought back to CCF. Additionally, in the first half of the year, three cubs were brought to CCF after their mother had been shot in a game camp.

A two-month-old male orphan cheetah cub was brought to CCF in August after his mother was chased away and a sibling killed by dogs. A farm worker then grabbed the cub and put him in a chicken coop. After nearly a month, the absentee farm owner found the cub and called CCF to collect it. This cub was very used to people and needed special care. He has been named Little C and is serving as CCF's new ambassador. After two months of infant care, he was introduced to another of CCF's orphan cheetahs, a female called Kanini. They have bonded together and a new pen has been developed for them.

A local dentist performed root canals on two wild male cheetahs in the first half of the year and on a wild female in the second half of the year. All three of the cheetahs had broken canine teeth, probably as a result of damage inflicted in the trap cage, as the breaks were fresh.

In the second half of the year two cheetah necropsies were performed. The first was in September on a cheetah found dead on the road near Windhoek. It had been hit by a car and the necropsy showed extensive internal damage. The second was conducted on a wild female cheetah that was euthanised by CCF due to a broken neck.

As of the end of December, CCF was housing 46 cheetahs (17M:29F) that were non-releasable back into the wild.

B. HEALTH AND REPRODUCTION

All cheetah handled by CCF, both captive and wild, are assessed using standard protocols for overall health and, in the case of males, reproductive fitness in the form of semen collection, assessment and, where possible, banking in the Genome Resource Bank (GRB).

1. Health Issues – Gastritis

Internationally, cheetahs suffer from gastritis, an inflammation of the stomach that is caused by spiral bacteria and negatively impacts the animals' health. Stress is implicated as one of the possible causes of this disease. The long-term research into the causes and effects of gastritis in cheetah, undertaken in collaboration with Dr. Linda Munson and Dr. Karen Terio (University of California, Davis), continued with the annual collections on CCF's cheetah in February and in August. All the animals in the study were endoscoped in addition to receiving their annual health checks and vaccinations. Drs. Arthur Bagot-Smith, Carlos Sanchez and Axel Hartman performed the endoscopies on the resident cheetahs.

2. Health Issues – Renal Disease

Collaborative research on renal disease was conducted during the annual exams with Dr. Carlos Sanchez from the Department of Animal Health, Smithsonian Institution's National Zoological Park. The overall objective of this study was to develop a reliable diagnostic tool for early detection of renal disease in the cheetah.

Renal disease is considered to be the leading cause of mortality in captive cheetahs. Glomerular filtration rate (GFR) is a sensitive test that detects early stage renal disease, and is considered to be the best single parameter for assessing overall renal function because it is directly related to functional renal mass. A technique of GFR is to determine inulin clearance from blood serum or plasma, three hours after a single intravenous injection of inulin. Studies on domestic carnivores concluded that the inulin excretion test is a valuable tool to determine GFR in these species. Animals with suspected renal disease or confirmed renal disease had lower GFR values than control animals.

The determination of GFR in captive cheetahs offers the possibility of establishing baseline parameters that could potentially help in the diagnosis of renal disease in early stages; further diagnostics measures, more intensive screening programs or even treatment can be implemented. The overall benefit of early detection will have a direct impact on advancement of animal health care and the survival of captive populations.

The objectives of the renal disease study were to: establish GFR of inulin and possible creatinine in captive cheetahs; determine differences of GFR among different age groups, and differences among

cheetahs with suspected and confirmed renal disease to those with no renal disease; compare GFR in captive and wild caught cheetahs; and evaluate the reliability of the GFR test as an early detection mechanism of renal disease in cheetahs. The hypothesis for cheetahs is that GFR is lower in older cheetahs and individuals with suspected or confirmed renal disease.

In total, 15 cheetahs at CCF were used for this study. The cheetahs were classed into age brackets that included six young cheetahs (3M.3F, younger than 3 years), five middle-aged cheetahs (1M.4F, 3-7 years), and four older animals (1M.3F, 7 years or older). Blood samples were collected at 0, 60, 120 and 180 minutes. The samples were centrifuged and the serum was frozen and shipped to the College of Veterinary Medicine, University of Georgia for analysis.

Using this technique we determined the glomerular filtration rate on 3 populations of cheetah managed under different conditions. The determination of GFR in captive cheetahs offers the possibility of establishing baseline parameters that could potentially help in the diagnosis of renal disease in early stages. The preliminary results of this study were presented in a talk at the American Association of Zoo Veterinarian Conference entitled ‘Single-injection inulin clearance for routine determination of glomerular filtration rate in cheetahs (*Acinonyx jubatus*)’.

3. Semen collections and Genome Resource Bank

Since 2002, a total of 244 semen collections have been added to the CCF Genome Resource Bank (GRB). In the first six months of 2007, eight semen collections were banked into the CCF GRB and 13 in the last 6 months. The CCF GRB now contains a total of 187 cryo-preserved sperm samples from captive and wild cheetahs in Namibia, representing 73 individual cheetahs. This year, semen collections were conducted on 25 male cheetahs, including 13 wild males and 12 CCF captive males.

Six of CCF’s captive males were banked during the annual physical exams, and sperm was also collected from four wild male cheetahs of which only two of these cheetahs were banked, as their physical condition was very poor, resulting in very low sperm quality. In the second half of the year, five of CCF’s captive males were banked and additional nine wild males. One of CCF’s captive male cheetahs, Ron, was implanted with a Suprelorin[®] (deslorelin) implant, which is a GnRH agonist that affects contraception by temporarily suppressing the reproductive endocrine system, preventing production of pituitary (FSH and LH) gonadal hormones (estradiol and progesterone in females, and testosterone in males). The observed effects are similar to those following ovariectomy or castration, but are reversed after the hormone content of the implant is depleted. This took place in February after his semen was collected. The contraceptive was checked in August for success of the implant through sperm production, of which there was none.

Sperm from one of CCF’s male cheetahs, Cruise, was used for *in vitro* studies.

4. Cheetah Reproduction

In the wild, female cheetahs are solitary unless they are raising cubs. A female cheetah typically only seeks male company when in oestrus. Captive facilities often house cheetahs in groups, either in the same compounds or adjacent to same or opposite sex individuals. These social groupings affect both the stress levels and the oestrus cycles of captive females. Research into captive female reproduction includes behavioural observation and faecal collections, often coinciding to enable behavioural and hormonal correlations. CCF’s studies aim to answer, amongst others, the following questions:

- Is there a linear dominance hierarchy?
- Are more dominant females suppressing oestrus in less dominant females?
- How do the stress levels of animals compare in high and low densities?
- Are oestrus cycles similar?
- Are amicable social groups found in high- and low-density enclosures?
- Do amicable social groups cycle synchronously?

Research into the behaviour and reproductive cycles of CCF's resident females contributes to the growing knowledge base on female reproduction.

Coinciding with daily behavioural observations, faecal samples are collected on females participating in the female reproductive study in August. The faecal samples were sent to the USA for hormonal profiling.

Reproductive Biology of Captive Female Cheetah

In August, a team of four researchers from the Smithsonian Institute and the University of California, headed by Dr. Adrienne Crosier (Smithsonian Institute), visited CCF to conduct a joint research project targeted at the reproductive biology of captive female cheetahs, of which little is known.

Cheetahs were classed into age brackets that included younger (2-5 years), middle-aged (6-8 years), and older animals (≥ 9 years of age), to determine differences in ovarian function, oocyte (egg) quality and uterine health among the age groups. Using hormones to artificially induce oestrus, cyclicity and response to gonadotrophins was assessed. The team used ultrasound to examine the reproductive organs and then performed egg extraction, a task that required precision timing, immediately before the female ovulates. Oocyte quality, embryo development and uterine health were evaluated.

Older females do not reproduce well in captivity and it is known that reproductive efficiency declines in these females at around 8 years of age. Preliminary results are helping to determine if the drop in reproductive capacity is due to a problem with ovarian function, poor quality eggs, or uterine pathologies that prevent pregnancy. The assessment shows no effect of female age on total follicle number observed at laparoscopy. Significantly fewer oocytes were recovered from females ≥ 9 years of age and the fewest high quality oocytes were recovered from females ≥ 9 years of age. Results show no influence of age on uterine body wall or uterine horn thickness by ultrasonography.

In the world's zoos, there is an abundance of older female cheetahs that carry valuable genes that are underrepresented in the gene pool. This study will help develop methods of impregnating the females and thus conserving their valuable genes. Although saving habitat is the ultimate goal in saving the species, understanding all aspects of the cheetahs' biology and physiology is one of CCF's key objectives.

In August 2007, the first ever *in vitro* cheetah embryos that have developed to the blastocyst stage were produced at CCF's reproductive laboratory in collaboration with the Smithsonian Institution and the University of California, Davis, USA. The eggs used in this study were recovered from Nestle and Hershey, two of CCF's captive cheetahs. Semen samples were extracted from a resident male cheetah and used for in-vitro fertilisation (IVF). Joined by Dr. Arthur Bagot-Smith, the team performed cheetah IVF, inseminating the eggs with sperm. These embryos were frozen for storage in

CCF's Genome Resource Bank. The sperm used had been frozen and stored for over a year. This proved that the techniques researched at CCF to freeze and thaw cheetah sperm are viable.

This breakthrough in cheetah reproductive research has far reaching implications for the conservation of cheetah and demonstrates the benefits of an integrated approach of both captive and wild cheetah conservation programs to ensure the survival of the species.

C. LARGE CARNIVORE RESEARCH AND ECOLOGY

1. Cheetah Census

Range-wide population estimates for cheetahs are critical for their conservation. However, the species is particularly difficult to study since cheetahs are highly secretive with widespread home ranges. Most population estimates are based on presence/absence data from questionnaires and are not scientifically driven.

For many years, CCF has been working to develop census techniques that can be indexed and are reliable. To this end, this year CCF focused on two overlapping, non-invasive census techniques: (1) photographic captures using camera traps and mark-recapture analysis using the cheetah's natural spots, and (2) spoor tracking surveys throughout CCF's lands.

Camera Trap Research

CCF has been evaluating/investigating the use of remote camera trapping to estimate free ranging cheetah density since late 2005. Preliminary results from field trials in 2005 and 2006 have supported the use of the technique.

Preliminary data was analysed and presented in the poster session at the annual Society of Conservation Biology international conference in July, entitled, 'The feasibility of using remote camera traps at marking trees to estimate density of free-ranging cheetahs in north-central Namibia'. Using 14 camera-trapping stations (two cameras per station) within the Waterberg Conservancy, 14 cheetahs were photographed in 250 photos (4% of the photos taken), during 1302 trap nights, with 6.87 (± 9.12) days between visits. The interactive program CAPTURE2 was used to analyse the data organized on a 15-occasion format (1 occasion = 15 sessions/days) with only adult cheetahs being used for analysis. A high detection probability was observed, due to camera coverage and density ($24\text{km}^2/\text{camera}$) in relation to the actual sampled area (296km^2). Cheetah density in the study area was estimated at $4.1 \pm 0.08/1000\text{km}^2$, based on the M_h model. This study showed that the cameras were sensitive to sudden changes in weather conditions, as 56% ($n=3530$) of recorded photographs were empty.

From June through September, a second study was undertaken to compare the effects of seasons and conditions (the first trial was conducted during summer November through to January). The 2007 camera-trapping census included 19 stations. During the three-month study, a total of 5860 pictures were taken and catalogued, totalling 163 rolls of 36 exposure films. Thirty-one species, consisting of birds, ungulates, and other small and large mammals, were captured. All species detected in the first trial (2006) were also captured in the second trial with the exception of the serval (*Leptailurus serval*) in 2006. Of the 5860 photos, 3.8% ($n=220$) were cheetah photographs, with less than one percent being leopard ($n=22$) and brown hyena ($n=21$). There were less empty photos in this study than in 2006 (47%, $n=2728$).

Thus far, from the 220 cheetah photos, 11 male cheetahs have been identified plus two cheetah cubs. Unlike the previous study and despite the presence of dependent cubs, no female was captured on photographs. As with the first trial, a male bias was observed.

Spoor Tracking

Spoor tracking surveys are conducted on Elandsvreugde as a part of CCF's long-term research. The primary purpose of spoor tracking is to look at game density. However, over the years, many predators including cheetah and leopard have been recorded.

Building on previous research of spoor tracking on CCF's farm Elandsvreugde, which evaluated the use of spoor frequency as an index to estimate cheetah density, a long transect of 83km was designed to look at density throughout five of CCF's farms. This longer, straight transect was aimed at increasing the probability of capturing imprints of many different animals as it traverses the home range of multiple cheetahs. Spoor tracking on these transects was conducted three times a week, with the study running concurrently with the remote camera trapping census (June through September).

The transect was sampled 18 times, providing a total distance covered of 1494km. Cheetah spoor were seen on all samples, with the result that spoor was being encountered approximately every 87.88km (99.79 ± 16.90), at a density of 4.48 (± 2.18) individuals per 100km. The spoor frequency decreased with an increase in spoor samples, with a measure of variation dropping below 5% after 16 samples (1368km).

Besides cheetah spoor, leopard and brown hyena spoor were also collected during sampling sessions, along with game numbers determined through visibility counts. Both leopards (n=130) and hyenas (n=104) had lower spoor frequency than cheetahs, with approximately 1 imprint per 83km, and also higher densities 8.70 (± 3.59) and 6.96 (± 3.40) per 100km. No variation was observed on the spoor frequency between samples for these two species; therefore suggesting that sampling at such a large scale for these two species is sufficient for monitoring purposes. Cheetah sampling effort approached spoor frequency of 1 print per 83km towards the end of the 18 sample sessions. Further studies whereby the two techniques, camera trapping and spoor tracking, are monitored concurrently are needed for establishing trends on estimates.

D. ECOSYSTEM RESEARCH

As 70% of the country's game inhabits farmlands, assessment of the Namibian farmland ecosystem for long-term habitat viability for the cheetah and its prey is part of CCF's primary, ongoing research. CCF staff regularly collects rainfall data during the rainy season, as well as daily weather readings. While the rains were of variable intensity across all the CCF farms, overall it was a year of heavy rainfall. The CCF Centre recorded 70mm since the beginning of the rainfall season (27th October – December 20th). Average annual rainfall recorded for the 2006/2007 season was 348.31mm.

1. Game Monitoring and Prey Habitat Preferences

To assist in developing a game-monitoring programme for the Waterberg Conservancy, CCF continued its ongoing wildlife monitoring. The research was conducted on the CCF farms and is

designed to help us understand patterns and trends in game density, movements, demographics and habitat utilisation.

Earthwatch volunteers assist with this research. The monthly monitoring involves visual road counts, tracking and counting spoor, categorizing vegetation densities, distribution, and soil analysis. This information is correlated with data collected on rainfall and temperature.

During the year, a total of 42 game counts were conducted on circuits A & B. Of these, 21 were conducted between January and June, and the remaining 21 in the second half of 2007. In addition, 93 replicate counts were conducted on the CCF big field during the year, with the assistance of Earthwatch volunteers, students, and CCF staff with 48 occurring in the first half of the year, and 45 in the second half. All data from these surveys were entered into the main database and preliminary results on trends were produced

Analyses for the 2007 field counts (Fig. 1) show that oryx, red hartebeest and warthog were the most common sightings during the counts. Overall, the average animals observed for all species per count increased during January to April, contrasting the trends observed during the same period in 2006. Eland sightings were scant, whereas springbok numbers showed an increase, with 67 individuals recorded during January. With the exception of warthog, the mean number of individuals counted declined between May and August, the dry and cold season (Fig. 2). This is consistent with the 2006 results during the same period.

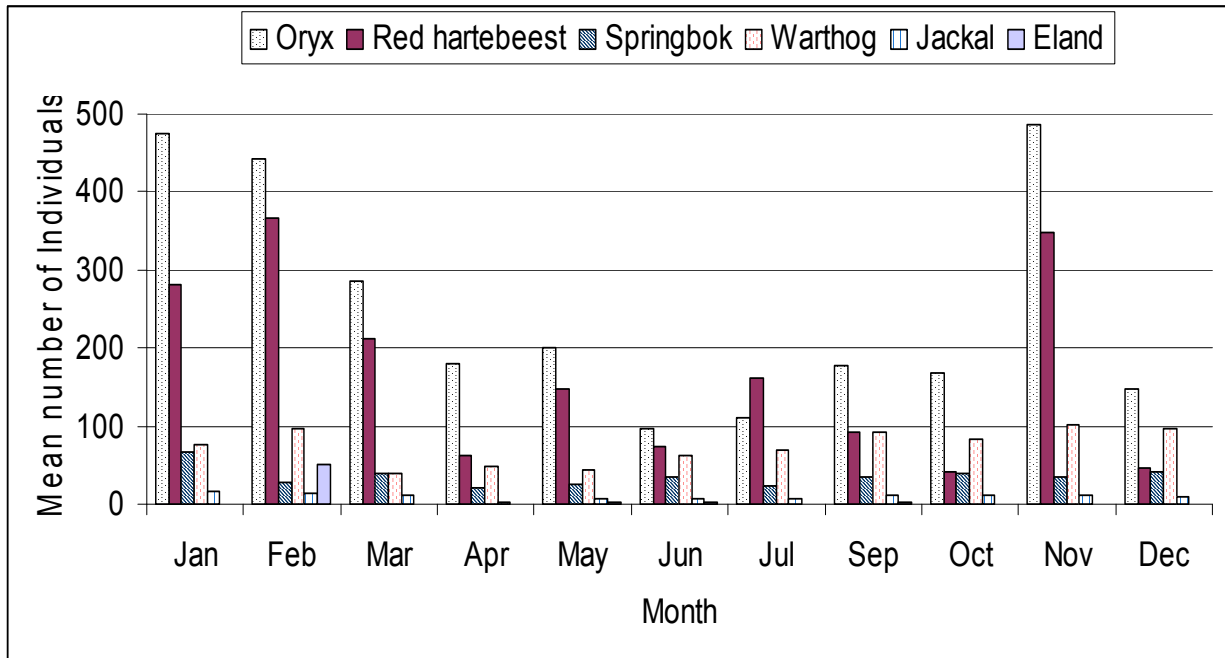


Figure 1. Average number of individuals per game counts conducted on the CCF big field during 2007.

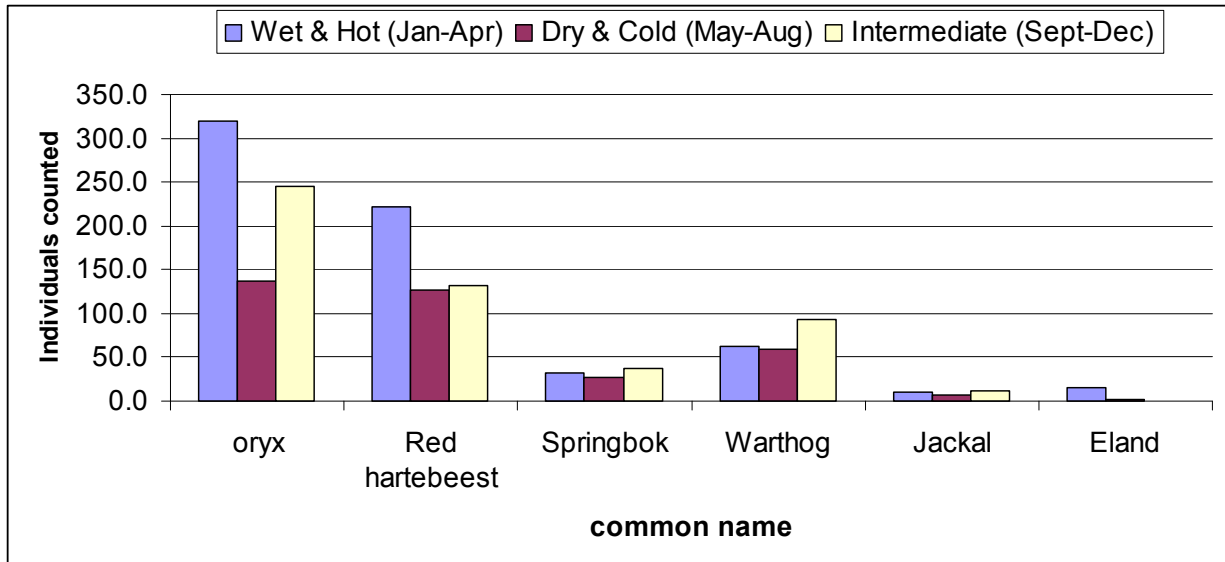


Figure 2. Average number of individuals per game count conducted on the CCF big field during the wet-hot (Jan – Apr), Dry-Cold (May – Aug) and intermediate (Sept – Dec) seasons during 2007.

2. Waterberg Conservancy Annual Waterhole Count

CCF staff once again worked with members of the Waterberg Conservancy on the annual Waterberg Conservancy Waterhole Count. Unlike previous years, the Conservancy this year opted for a 12-hour waterhole count versus 24 hours. This switch was based on the fact that in previous years, most animal activity records were made during daylight hours (or visitation to waterholes was primarily during daylight). The new moon count was done on the 12 of August and over 56 counters made up of CCF volunteers and staff, Otjiwarongo and Khorixas district youth forums and Earth Expeditions members, were posted at 21 waterholes on 9 farms within the Conservancy (76472 ha). CCF conducted volunteer orientation, assisted with record sheets and identification guides, and the transportation of volunteers.

Twenty different animal species were recorded, a number similar to previous 24 hour counts (n=21) although some species observed on the 2006 count were not recorded on this count (including aardvark, brown hyena, dikdik, porcupine). However, this is to be expected, as these species are mostly nocturnal. Overall, for the five main species, more individuals were counted this year than during the 2006 24-hour waterhole count. Caution in the interpretation of this comparison is required as not all farms included on the 2006 count took part in the 2007 count and more animals were recorded (in a smaller area). Likewise, there was an increase in rainfall from the previous year of 106% (169 to 348.13 mm). As a result of these sources of variation, CCF is currently re-analysing their 24-hour waterhole count data for the past 5 years to determine whether 12-hour waterhole count abundance index results are similar to the 24 hour ones.

Densities of the five main species in the Waterberg Conservancy were higher than the previous year despite fewer farms being included and a count reduced to 12 daytime hours (Fig. 3). Warthog had the highest density of 113/1000ha followed by kudu (27/1000ha), oryx (22/1000ha), red hartebeest (15/1000ha) and lastly eland (10/1000ha).

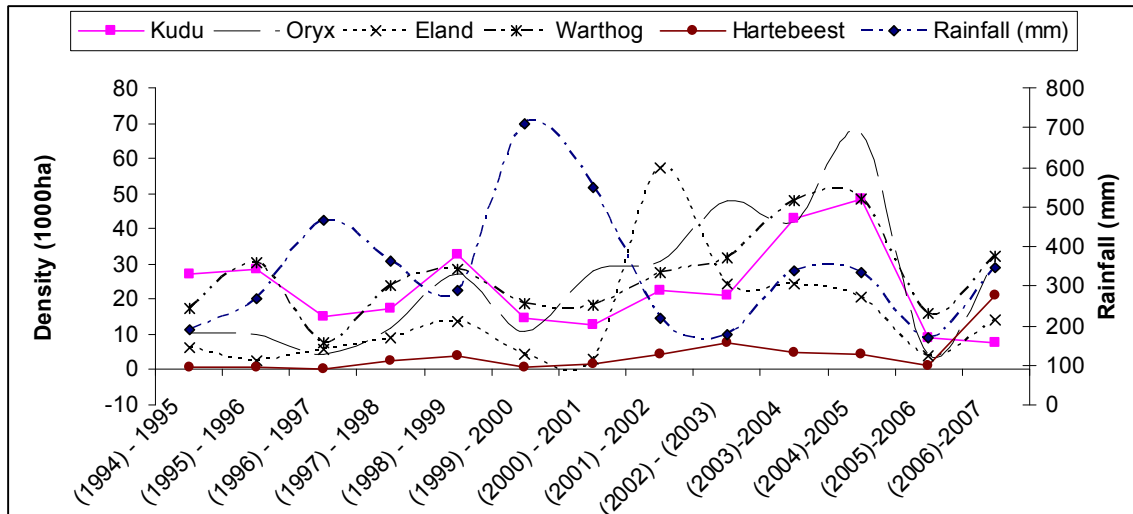


Figure 3. Densities for the five main species in the Waterberg Conservancy

3. Fixed-point Photography

To monitor long-term vegetation changes over time, CCF takes fixed-point photography photos. During the past six months, fixed-point photography was taken at 11 locations at Elandsvreugde and Osonanga. Pictures were taken using a digital camera instead of film, thus eliminating the need to develop and scan.

4. Vegetation Study

Using vegetation data collected on CCF farms between 2003 and 2007 in previously cleared and non-harvested areas, the woody stem density and floristic composition characteristics were confidently quantified. Data from 238 circular plots were used in the analyses of Elandsvreugde (n = 119) and Cheetah View (n = 119). Analyses of sample effort and minimum sample size per study site have shed more light on the importance of increasing sample sizes in order to reduce sample errors and increase the probability of reliable confidence intervals. Overall, small samples were observed to have high precision errors. However, as sample sizes were increased, the accuracy and precision of the estimates continued to improve remarkably. Data were collected from 2 previously cleared sites on the farms Cheetah View (CV field 1) and Elandsvreugde (Transition area) during July 2007 and were compared to non-harvested sites on Cheetah view (CV2) and Elandsvreugde (Economic plots, Plot B). Figure 5 illustrates the overall species composition for the encroaching species observed on CCF farms. Analyses of composition has showed that the most common species are, in decreasing order of occurrence, *D. cinerea* (37%) *A. reficiens* (24.4%) and *A. mellifera* (17.7%). Species such as *A. fleckii* and *A. tortilis* were not commonly found and were mainly localized on these farms.

Figure 6 illustrates the sighting frequency of the most observed species at the study sites. With the exception of the cleared sites (CV1 & Transition plots), *D cinerea* was the most common species observed. Study site CV1 was predominantly characterized by *A. tortilis* bushes, whereas *A. fleckii* and *A. reficiens* dominated the Transition site. Analyses on species diversity have shown high indices in the Economic plots and Plot B non- cleared sites, with $H' = 0.64$ and $H' = 0.63$ respectively. Moderate diversity indices were observed in the CV2 and Transition sites with $H' = 0.59$ and $H' =$

0.57 indices respectively. Ironically CV1, which was cleared < 15 years ago, had the least diversity index with $H' = 0.49$.

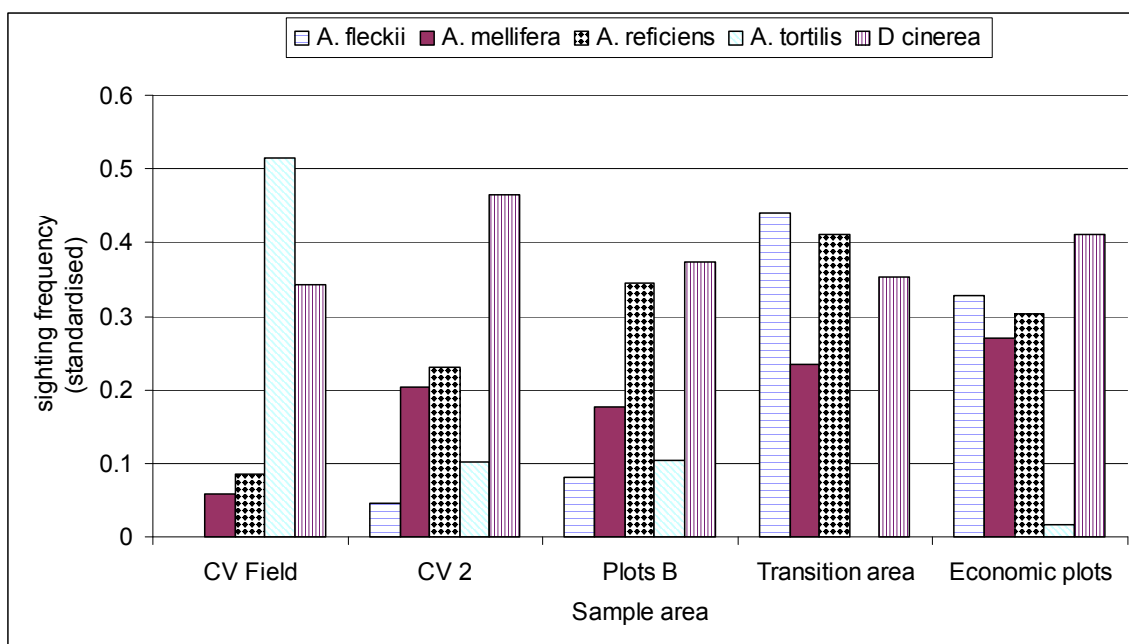


Figure 6. Sighting frequency of the most observed species at the study sites

Comparison in floristic composition between previously cleared and non-cleared study sites has provided information on the long-term effects of harvesting on the floristic composition of local species. As stated, both previously cleared sites were not dominated by *D. cinerea*, the most common species on CCF farms. Although statistical analyses were not done to compare the study sites and adjacent habitat, visual comparisons were sufficient, with adjacent land being dominated by *D. cinerea*. Factors such as harvesting intensity and competition release may cause these changes.

Overall *D. cinerea* was dominant with the highest average bush density recorded in the CV2 (778 ± 99) and Plot B (608 ± 111) study sites. This species, although not common in the transition area, had overlapping densities with *A. fleckii*. However, *A. fleckii* was only found at high densities in the Transition area and CCF economic plots. At the CV1 site, the average bush density of *A. tortilis* was 1091.01 ± 488 , whereas all other sites had bush densities of < 200 individuals per hectare. Ironically, the CV1 site which was harvested < 15 years ago had the highest bush density of 1302.81 ± 456 individuals per hectare. The second highest density was observed in the Plot B site, whereas the Transition area and the Economic plots had the lowest density. Analyses of variance to determine whether significant differences in density existed between the study sites were not significant in all cases. ($F = 1.89$, $df = 4$, $p = 0.11$). Bush densities measured on CCF farms were found to be lower than the published figures in de Klerk (2004) & el Obeid (2005), where densities were reported to be 2000 – 3000 individuals. However, variations within the region due to rainfall, soils and management practices were identified as possible factors resulting in these differences.

In Namibia, land tenure systems affect the manner in which people utilise natural resources. Decisions to manage natural resources on privately owned freehold farms are often made by individual landowners, a situation which may expose the local biodiversity to different management regimes. Restoration of the natural savannah from encroachment would require a collective effort

and participation from all local stakeholders (farmers), whereas available bush biomass should be scientifically quantified. Although established bush industries such as charcoal, Bushblok, and timber production do exist, a large portion of farmland is still encroached. Expanding restoration efforts to affected areas would require local level stakeholder's analyses with a particular focus on how they perceive bush encroachment, effects on their income, previous attempts to clear bush, impediments in habitat restoration, what they consider to be a reasonable vs. a feasible cost, and areas for collaboration. Different needs areas could be identified amongst stakeholders and may be used as a basis for strengthening local participation initiatives.

5. Bush Encroachment and Biodiversity

During the period January – June 2007 as part of his ongoing Masters thesis in Development Studies, CCF's research assistant Matti Nghikembua conducted 51 farm surveys, targeting commercial farmlands in the Grootfontein, Otjiwarongo, Outjo and Tsumeb district over a four-month period (June – September). The objectives of this study were to determine the type of resources commonly utilized on commercial farmlands and associated costs; the level of receptivity towards bush biomass use; and identifying specific target areas for joint venture development. Dr. Arvo Leinonen, a visiting scientist from Finland, participated in this project.

Preliminary results have shown that bush encroachment was overwhelmingly regarded as a problem in the study area (96.07% [n = 49] of the respondents identified this phenomenon to be a problem). Similarly, analyses to determine equal distribution in frequencies between farmers who identified bush encroachment to be a problem or not, were significant ($\chi^2 = 41.490$, $df = 1$, $p = 0.000$). Figure 4 illustrates the percentage of bush encroachment ratings amongst the respondents. The degree of encroachment was rated to be highest in the 60% – 80% category, with this category selected by 46.9% (n = 23) of the respondents. Ratings in the 80% – 100% and 40% – 60% encroachment categories were selected by 22.4% (n = 11) and 20.4% respectively. The lowest ratings were observed in the less encroached category of 20% - 40%, representing 10% (n = 5) of the respondents. No responses in the < 20% were observed. Overall, the average encroachment from these ratings equalled 66.33 ± 5.07 %.

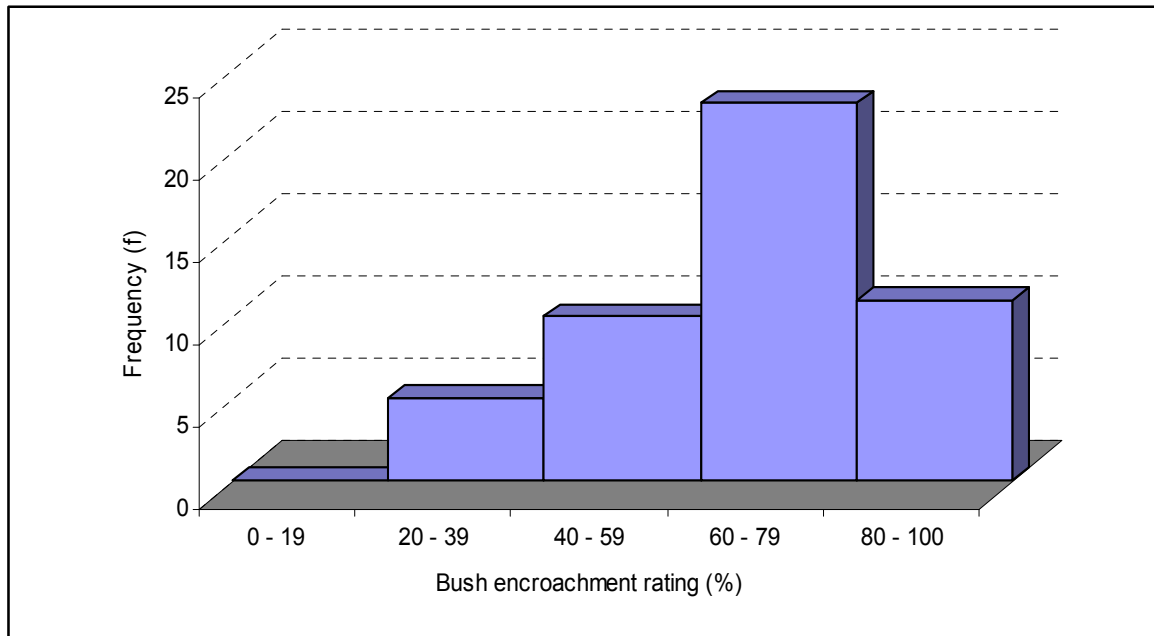


Figure 4. Percentage of bush encroachment ratings amongst the respondents.

Given that encroachment was considered to be a problem, 84% respondents attempted control. Different approaches to restore habitat were employed, ranging from mechanical, chemical and biological methods. Electivity analyses have shown that most farmers interviewed preferred to use chemical application ($E = 0.235$, $z = 0.96$) and manual harvesting ($E = 0.220$, $z = 0.220$), with the proportions of farmers who utilized chemical and manual restoration/control approaches not differing significantly (32% and 31% respondents respectively). Restoration/control methods such as the use of fire, bulldozing, and goats were used by only a few farmers, thus showing avoidance tendencies. About 70% ($n = 39$) of the restoration was conducted by the owners of the farms and farm staff ($E = 0.353$, $z = 1.13$), with the level of involvement by contractors and other individuals being minimal.

Figure 5 illustrates known impediments that could negatively influence the farmers' decisions to utilize bush biomass. 50% of the farmers identified the lack of capital investment to be the first main obstacle/impediment towards bush biomass use ($E = 0.429$, $z = 1.26$). About 25.49% of the respondents identified labour-related problems to be the second most important obstacle, with the third being a lack of expertise (18%). Access to both local and international markets was selected by 12% as a problem. Other impediments identified at lower frequencies consisted of commitment from the government (1.96%), and lack of time (1.96%).

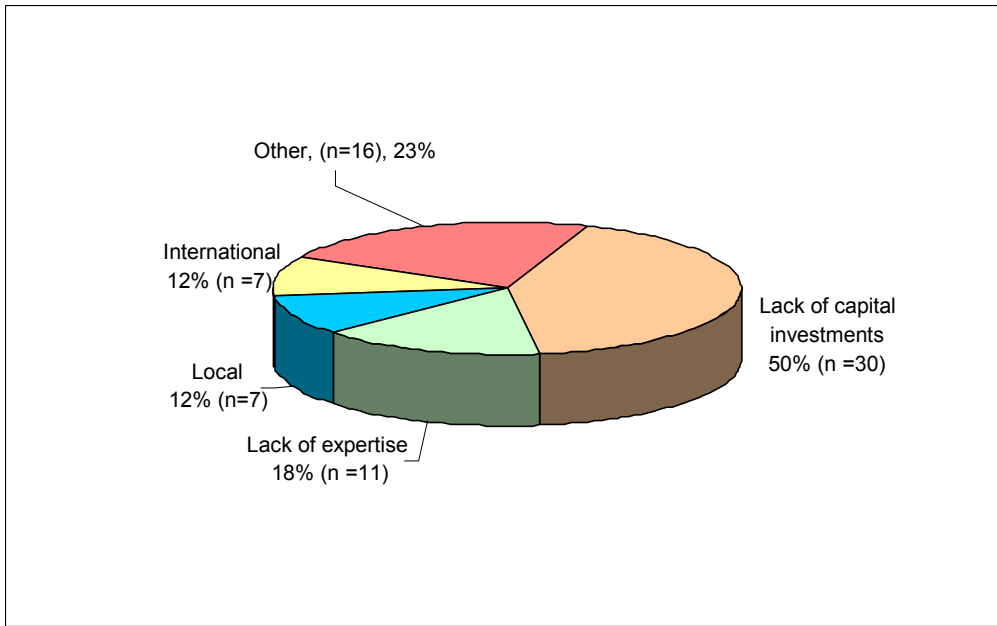


Figure 5. Impediments towards bush biomass utilisation.

About 94.12% farmers provided their opinion with regard to what they considered to be a reasonable cost for clearing bush. About 23% of the respondents regarded the N\$ 250 – 300 category to be reasonable. Few responses were observed in the < N\$ 100 and N\$ 100 – 150 categories with each category having 6% of the responses. About 17% of the farmers selected the uppermost category of N\$ 400 – 450. Overall, an average cost of N\$ 278 ± 31.87 (mean ± stdev) was considered to be reasonable to clear a 1 hectare plot affected by bush.

Asked as to how respondents intend to cover the costs associated with clearing, the highest proportion of respondents (0.5) preferred to cover their own expenses. The second highest proportion of respondents (0.25) preferred joining business ventures, whereas 0.17 were in support of loans. Other methods of financing identified consisted of subsidies (0.04), government funding (0.02), and sponsors (0.02).

Electivity index results in identifying specific target areas showed highest proportion of 0.34 responses in the harvesting category. Preference analyses were significant for the harvesting category, showing that this area required most assistance ($E = 0.34$, $z = 1.70$, $p = 0.045$). In addition, both the training/awareness and chipping categories showed positive electivity indices with 0.01 ($z = 0.04$) and 0.11 ($z = 0.39$) respectively.

E. SCIENTIFIC PUBLICATIONS, POSTERS AND SIGNIFICANT TALKS GIVEN

1. Publications

Marker, L.L., Dickman, A.J., Mills, M.G.L., Jeo, R.M., Macdonald, D.W. Factors influencing the spatial distribution of cheetahs (*Acinonyx jubatus*) on north-central Namibian farmlands. Journal of Zoology (in press).

Marker, L.L; Pearks-Wilkerson, A.J.; Martenson, J.; Sarno, R.J.; Breitenmoser-Würsten C., O'Brien, S.J.; Johnson, W.E. Patterns of molecular genetic variation in Namibian cheetahs. Journal of Heredity (in press).

Fabiano, E., Hamer, M., Nghikembua, M., & Marker, L. Evaluation of spoor tracking to monitor cheetah abundance in North-Central Namibia. South African Journal of Wildlife Research. (Submitted)

Crosier, A. E., L.L. Marker, J. Howard, B.S. Pukazhenti, J. Henghali, and D.E. Wildt. (2007) Ejaculate traits in the Namibian cheetah (*Acinonyx jubatus*): influence of age, season and captivity. Reproduction, Fertility and Development, 19: 370-382.

Marker, L. & Dickman, A. Conserving cheetahs on private land: using the Namibian cheetah *Acinonyx jubatus jubatus* as a case study. 12th Annual Wildlife Damage Management Conference, Corpus Christi, (submitted).

Schumann, B., Wykstra, M., Marker, L. Community Involvement in Cheetah Conservation Wildlife Conference 2007: research imperatives for biodiversity conservation and management, Nairobi. (submitted).

Marker, L., Dickman, A., Mills, G. MacDonald, D. Cheetah and Ranchers in Namibia – Managing Conflict. Book Chapter. Felid Biology & Conservation Conference Oxford. (submitted).

2. Posters

Society for Conservation Biology: Marker, L., Fabiano, E., Nghikembua, M. Cheetah Conservation Fund, P.O. Box 1755, Otjiwarongo, Namibia, cheetah@iway.com.na, The feasibility of using remote camera traps at marking trees to estimate density of free-ranging cheetahs in north-central Namibia. (2007).

Society for the Study of Reproduction - Crosier, A., Comizzoli, P., Baker, T., Pukazhenti, P., Howard, J., Marker, L. & Wildt, D. Oocyte Fertilization and Uterine Morphology in Aged Female Cheetahs (*Acinonyx jubatus*) are Similar to Younger Counterparts. (2007).

American Association of Zoo Veterinarian Conference - Sanchez, C., Murray, S., Brown, S., Marker, L., & Citino, S. Single-injection inulin clearance for routine determination of glomerular filtration rate in cheetahs (*Acinonyx jubatus*).

3. Talks

Felid Biology & Conservation Conference in Oxford, UK. Marker, L. Dickman, A., Mills, G. MacDonald, D. Cheetah and Ranchers in Namibia – Managing Conflict

24th Annual European Association of Zoos and Aquaria (EAZA) Conference, Warsaw, Poland, Marker, L. Cheetah Futures.

Wildlife Conservation Network, San Francisco, CA. Marker, L. & Wykstra, M. Cheetah Futures: here today, gone tomorrow?

The World Environmental Education Congress (WEEC) 2007, Durban, South Africa. Marker, L. & Nghikembua, M. Developing Cheetah Conservation Education in Namibia and Adapting it for Other African Cheetah Range Countries

12th Annual Wildlife Damage Management Conference, Corpus Christi, TX. Marker, L. & Dickman, A. Conserving cheetahs on private land: using the Namibian cheetah *Acinonyx jubatus jubatus* as a case study

Wildlife conference 2007: research imperatives for biodiversity conservation and management, Nairobi, Kenya. Marker, L., Schumann, B., Wykstra, M., Community Involvement in Cheetah Conservation

III. CONSERVATION

Livestock losses to cheetahs are an economic and emotional issue. Farmers perceive cheetahs as having an excessive economic impact on their livestock and wild game industries. Many Namibian farmers have done little to alleviate their problems in a non-lethal manner through appropriate livestock and predator management. By addressing farmer-predator conflict through a conservation management strategy that benefits both humans and cheetahs, CCF is ensuring the species' survival on Namibian farms and has raised greater awareness of better farm practices.

A. LIVESTOCK GUARDING DOG PROGRAMME

This programme is proving as popular as ever with many farmers calling CCF to enquire about the Kangal (Anatolian) Shepherds. During communications with farmers such as at training courses offered by CCF, and at information days and farm visits, various aspects of raising and training livestock guarding dogs are discussed. There is a great need for dissemination of information on the protocols for raising and training dogs, and the reasons for success and failure. Many people are using dogs without fully understanding the principles behind bonding and developmental stages that can prove problematical, such as playing stages, but that can be solved through corrective training. Preliminary results from a survey conducted with emerging commercial farmers last year revealed that 54% of respondents ranked not knowing how to train a livestock guarding dog as the most important reason for not using one.

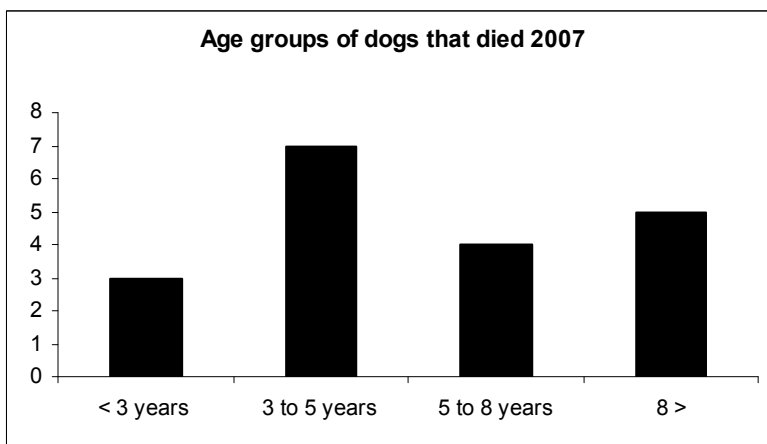
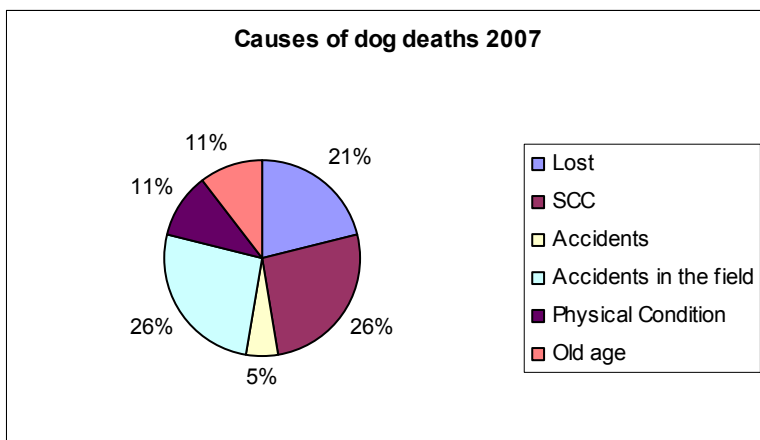
1. Population biology

As of the end of 2007, there were 103 dogs alive (55M, 48F). Of the live dogs, 24 are pets (CCF has 5 pets) and 79 dogs in Namibia are working on farms (CCF has 6 working dogs, 2M, 4F). Of the 79 working dogs 11 (6M, 5F) are placed at communal farms, 21 (15M, 6F) with emerging farmers, 43 (18M, 25F) with commercial farmers and 4 dogs are retired (2M, 2F)

One of the working female dogs at CCF was spayed because of her advanced age. One of the males, Caesar, was euthanised at the respectable age of 12 years.

CCF had two litters of puppies this year. One puppy was very weak and died soon after birth, while 17 puppies were raised successfully and placed at 8 weeks with their new owners. At this moment we have two pregnant females, Penda and her sister Mommy. Both these females are crossbreeds of Anatolians-Mongrels, and have been bred with our pedigree Anatolian, Amos. Mommy is expecting her litter early January 2008, Penda in February 2008.

In 2007, nineteen (11M.8F) dogs died because of various reasons. 5 dogs were euthanised because of advanced SCC (*Squamous cell carcinoma*). Four dogs were reported lost and presumed dead. Two dogs were euthanised because of their physical condition, two dogs were euthanised because of old age, five dogs died because of various accidents in the field and one because of a car accident. One puppy died directly after birth. (not included in the graph)



In addition, 9 (5M, 4F) Kangal Anatolians from CCF are living as pets (1M) or working dogs (4M, 4F) in SA.

At CCF's farm, Boskop, 4 (2M.2F) Anatolians are housed as pet. A new male (Gibson) and a new female (Charlie) came in May, because they were hunting on their previous farms. This type of behaviour can happen when the dogs are not trained or supervised properly, or are taken hunting by farm workers.

2. Breeding

During 2007, 27 puppies were placed with farmers' livestock herds, of which 7 were puppies born in November 2006 and placed in January 2007, and the other 17 were born in October and placed in December.

Of the seven puppies placed in January, one was placed with a resettled farmer, two were placed with communal farmers, three were placed with commercial farmers and the puppy (SB314) that experienced health problems last year was placed on CCF's farm Janhelpman, with sheep. This puppy, however, had to be euthanised in August due to renal failure.

Two litters of puppies were born in the second half of the year. Tylee's third litter produced 8(5M.3F) puppies. A second litter for Ushi produced 9(4M.5F) puppies. Both litters were sired by Amos, CCF's breeding male. These dogs were placed with farmers throughout Namibia to help protect their small stock herds. All eight of Tylee's puppy went to commercial farms. Of Ushi's puppy's three went to emerging commercial farmers and 6 to commercial farmers.

At eight weeks of age, the puppies were all neutered and spayed. Following this, the selected farmers visited CCF to pick up their dog and received a day of training on the care and management of these dogs. In December, when the puppies were three months of age, CCF staff travelled to visit the farms to check up on the puppies and to vaccinate them.

3. Puppy placement.

22 puppies were placed in September 2007, 12 were visited and vaccinated at the age of three month. The owners themselves vaccinated the other four, as their farms are too far away for CCF staff to reach at the moment. One of these four puppies sustained a broken leg and was taken to the vet for treatment by the owner and is recovering well. Another puppy contracted tick bite fever, but was treated and is doing well. This puppy will be visited in March 2008 again for a follow-up.

Five adult dogs were visited during the same period. Two of the dogs were in good condition, while another was underweight because the owner didn't purchase food regularly. This owner was told to buy food and will be checked on in February 2008. One adult dog was taken from a farm, because it had its foot amputated in a gin trip. This dog has been transferred to a new farm and is working well.

4. Follow-Up on Prior Placements

CCF Education and Community staff member, Gebhardt Nikanor did a telephonic follow-up on the entire CCF Livestock Guarding Dog population in March. Few farmers called in to report deaths, or retirement of dogs, or even in some cases transfers, so contacting them resulted in a lot of historical changes not previously reported, concerning the numbers of dogs alive, working, retired and living as pets, or deceased.

In addition, Gebhardt travelled throughout the farming areas to follow up on the puppies placed in December 2006, January and November 2007, and to do general dog checks. Of particular interest are the mongrel-Anatolian crosses to see how well they are doing and to monitor their growth rates compared to pure Anatolians.

In total, 53 dogs were visited on 17 trips in 2007. One four-year-old male (SB214) (gin trap injury, re-homed) continues to do well and is working independently. One female (SB271) was returned to CCF by her owner. He had acquired her from a neighbour who sold his stock (dog moved with

CCF's approval) six months earlier. However, the dog killed and ate two newborn lambs. This behaviour can be encountered with a first lambing season, but as the dog was three years old, it is hard to explain, other than she was disrupted by the relocation. Suggestions to run-wire the dog and see the last month of the lambing season through with short periods of supervised access to newborn lambs and positive reinforcement for good behaviour were rejected by the owner. He was convinced the behaviour would not stop. She was re-homed north of Otjiwarongo and a run-wire is being used by her new owner to restrict her access to newborn lambs in the kraal at night.

5. Squamous Cell Carcinoma (SCC)

In Namibia an unknown increase of SCC is observed. It is not currently known how severe the disease is but a second year veterinary student from Cornell University, Taylor Williams, investigated the incidence of SCC in dogs in other countries and is writing up the CCF cases as part of her internship thesis.

At CCF, due to the increasing number of SCC cases, 5 dogs had to be euthanised. We are currently in the process of a study for possible treatment. For this reason, one of the dogs suffering from SCC is at the Otjiwarongo Vet Clinic, where she is undergoing experimental treatment for this disease.

B. LIVESTOCK AND WILDLIFE MANAGEMENT TECHNIQUES

1. CCF Farm and Livestock Model

CCF's farm provides the opportunity to practice and experiment with optimum methods of livestock and non-lethal farm management practices, acting as a showcase model of success.

CCF actively manages cattle (364 cattle) and small stock (171 sheep and 98 goats) on their farms. The goatherd has a breeding group of Livestock Guarding Dogs with them for protection. In the first half of 2007, 37 calves were born, 91 cattle were sold, 68 were bought and 1 died. During the second half, 28 calves were born, 9 sold, 12 bought, and 2 died. In addition, from June through July 2007, 51 lambs were born, 15 sheep were sold and 11 sheep died. In the second half of the year 14 were sold and 6 died. Some 31 goats gave birth to 41 kids during April and March, of which 25% were twins. Two billy goats were sold, as were 44 wethers (castrated males) and 40 females that were not at optimum breeding status. In the second half of the year, 5 goats were born, 9 died and 92 were slaughtered leaving us with 98 goats. A new vaccination and deworming protocol was implemented this year in an effort to move towards a healthier and more robust goatherd.

Necropsies were performed on three goats and one Damara sheep during 2007. All four animals had died acutely, and samples of the necropsies were sent to pathologists in South Africa. Results from two goat and the sheep samples that were sent to Dr. Lucy Lange are pending. Dr. Emily Lane assessed samples from a goat displaying neurological symptoms as a result of *Pasteurella sp.* induced pneumonia.

CCF pastures donkeys and horses for feeding resident captive cheetahs. Between January and June 2007 approximately 234 animals, mostly donkeys and a few horses, were slaughtered (about 36 animals per month) to feed resident cheetah and those being rehabilitated for eventual release back into the wild. In addition, 5 giraffe that were trophy animals were bought to feed the cheetahs. During the second half of the year, 130 donkeys, 18 horses, 10 giraffe and 13 zebra were slaughtered to feed resident captive cheetahs (the giraffe and zebra were bought from local hunting farms).

Total hay harvested for the year was 1465 round bales at an average weight of 228 kg. CCF kept 250 bales and the rest were sold. One third of these were harvested on CCF's big field by CCF, with the remaining harvested by an outside contractor. No hay was harvested in the second half of the year.

C. GLOBAL MANAGEMENT PLANNING/POLICY INVOLVEMENT

CCF assists in international programme development and adapts model programmes developed in Namibia for use in other countries, distributing its materials and information throughout Africa and the rest of the world.

1. CCF Kenya (CCFK)

Ecosystem and Predator Conflict Research

The main focus of CCF's research in Kenya is the evaluation of farmland ecosystems for the long-term habitat viability for the cheetah. The information from interviews, census and focused monitoring programmes are combined to recommend a foundation for cheetah management policies in Kenya.

Understandably, attitudes towards predators are negatively affected by livestock losses. Interviews conducted by CCFK show conflicts between people and predators vary from region to region. Links with the other large carnivore programs provide comparative information and evaluation 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. CCFK has ongoing cooperation with the KWS Veterinary and Research Departments in protocol development for research and biomedical sampling (i.e. blood, hair, skin), monitoring, trapping, collaring, knock down (tranquilising) and necropsy procedures. The protocols are essential for consistency in data collection including measurements and health evaluations of cheetahs.

(i) National Census

The current status of cheetah in Kenya is believed to be on a continuing decline. Past population estimates were based on calculations from studies mainly focused within Parks and Reserves. The census allows us to estimate population density and to determine where conservation efforts will have the most impact on future cheetah survival.

The project was initiated in 2004 in affiliation with the Kenya Wildlife Service (KWS) and East Africa Wildlife Society (EAWLS), with the aims of 1) mapping conflict through analysis of KWS predator conflict reports; 2) evaluating cheetah presence through field data collection; 3) identifying areas of cheetah sustainability or unique circumstances. This can now assist KWS and their partners in identifying areas for further studies.

A key accomplishment of CCFK during this period was the utilisation of the final report of 2002-4 interview evaluations of cheetah status for Nakuru, Machakos, Laikipia Wildlife Forums and CCFK game counts on Congreve section of Soysambu Farm to develop a monitoring programme in the Salama area of the Machakos Wildlife Forum.

Fieldwork included interview- and observation-based data collection for analysis through GIS mapping. Information on cheetah presence and areas of highest density are used as justification for long-term program development. Phase one, completed in 2005, tested methodology where there was a higher degree of infrastructure in conservation, road network and security. Most all key areas of cheetah historic and present range were mapped and evaluated up to December 2006 for contribution at the National Cheetah and Wild Dog Strategic Planning Workshop in Kenya February 2007.

In September 2007, map of presence and baseline population estimates were completed in the Priority 2 region. This included the Central and Northern Districts - Tsavo East, Taita, Taveta, Samburu, Isiolo, Meru, Garissa, Tana River, Ijara Wajir, Mandera, Marsabit and Turkana. This area has less infrastructure and fewer past studies, but there is still a high need for data on presence and baseline estimates.

A final report will be generated in early 2008 showing the current estimated cheetah presence throughout the Priority 1 and 2 regions. Workshops in collaboration with other conservation partners will target areas for further research and community programmes.

CCFK also continued maintaining a photo census database for program analysis of photographs submitted to the Great Cheetah Census (tourist submissions).

(ii) Human Impacts on Cheetah

Land use changes and an increase in human population and activity levels throughout Kenya affect wildlife density and distribution. 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 reduces prey base. Livestock loss to cheetah is typically viewed as a minimal threat compared to that of lion, leopard, jackal and hyena, however localized cheetah problems are reportedly increasing in settlements where cheetah populations exist in close proximity to people and the larger carnivores are present in small numbers.

The case study in the Kiu region of the MWF provided an opportunity to identify patterns of cheetah movement and livestock losses that have recently subdivided group managed commercial ranches into subsistence plots from 5 to 27 acres. In the Kiu area, cheetahs have been opportunistically reported killing goats, sheep and calves since August 2002. CCFK was invited to conduct studies on the issues facing the people in terms of wildlife conflict on behalf of the MWF and the community leaders. The reported cheetah problem provides CCFK with the opportunity to involve community members in research and awareness towards the plight of the cheetah. Herders and managers assist in reporting livestock losses and cheetah sightings to a Community Liaison Officer (CLO). Sightings and conflict reports are entered into a database in order to evaluate the cheetah population density and to map the conflict cases in relation to identified cheetah ranges and human settlements.

Telemetry studies were initiated in March 2005 to provide detailed information on the movements of a female cheetah. Her core home range is less than 25 square kilometres. From 2005-6 more than 80 families lost livestock to cheetahs, but from this monitoring there are several instances where she was not in the proximity of the loss. Thus, it has been possible to estimate that there are several cheetahs (12-28) in different social groupings, as well as leopard, lion and hyena, are reported in and around the study area.

Cheetah habitat use and proximity to livestock and settlements have been recognized within the community. The people have developed a network of communication whereby the locations of the cheetahs give warning of areas to be aware of when grazing. The study cheetah family and several other cheetahs in the area have opportunistically killed livestock throughout the study period. It has become evident that a number of cheetah in the area are responsible for the conflicts

The focal cheetah was initially collared when, with her five sub-adult cubs, she killed a calf on a commercial ranch. The cheetah family was suspected to have been killing several goats and sheep from a neighbouring settlement area. The collared family was tracked until October 2007 when the collar battery lost its power. She moves through dense vegetation, steep hills and areas of high human settlement - thus challenging the traditional thoughts of cheetah movement as well as habitat and prey preference. The study cheetah gave birth to two subsequent litters of cubs, thus a baseline behaviour pattern is the basis for more detailed monitoring and comparisons to other regions. Tracking for 24 hours and on consecutive days shows us a clearer picture of her daily movements in order to aid in conflict analysis and understanding her movement.

Through monitoring we have also become more aware of the impact of this highway on the cheetah population of the region, as there have been seven cheetah deaths on a section of about 15 kilometres since 2003. Additionally two cheetahs were killed in poachers' snares and two were reported to have been killed by herders. Most recently a mother cheetah and three small cubs were reportedly killed in a range fire in August 2007. The population of cheetahs in this region is still estimated at 15-28 based on sighting reports and social groupings. Continuing telemetry and monitoring through sighting reports will be expanded in 2008 to include faecal collection for hair and other analysis with the goal of expanding monitoring through use of the advanced technology of GSM (Global Satellite to Mobile phone) collars (Chifuyu Bennett, PhD student).

With good cell phone reception in this area, the detail received through GSM collars would be extremely beneficial in ongoing monitoring efforts. GSM uses a Short Message System to download data from the cheetah's collar to collect data throughout the day and night on regular intervals. This method is less time consuming and is financially better (car maintenance, fuel to and from study site, time spent ground tracking) provides quick and accurate input of information into computer data bases and mapping programmes.

Monitoring of cheetahs in Machakos Wildlife Forum gives answers to some of the issues of cheetah movements in recently sub-divided areas. Data from the 2005-7 cheetah movements and livestock loss patterns enable CCFK evaluate the solutions and options for problem cheetah protocols. The habitat usage of the case study show the cheetahs remarkable adaptations in land use and prey preference in an area of increasing land fragmentation. This report will determine the direction of ongoing and/or comparative monitoring projects in other areas.

Community Development

(iii) Livestock Husbandry and Health

Community development activities build capacity within a community in business and livestock management. These programmes pave the way for future partnerships and encourage positive attitudes for wildlife.

Community Development in the Kiu area has been directed through the renovation of four livestock cattle dips in the cheetah-monitoring region. A livestock dip uses a short acting chemical bath (acaricide) to aid in control of disease by treating livestock to kill and repel ticks and tsetse flies. CCFK chose improvement of livestock dips as a target community project based on a needs assessment in 2005. In 2006, renovations to community managed dips built in the early 1900's included resurfacing concrete entry and exit paths, sealing water tanks, replacing fence posts, rails and roofing.

Dip management workshops were held in April and July 2007 using local trainers to address issues of management through committees and community members holding meetings and keeping minutes, maintaining transparent accounts, and stock taking. Local Administration Officers, the local Veterinary Department and product suppliers participated in each workshop.

This project aims to develop a sustainable community project through a three-year (through 2009) plan whereby CCFK collects data on livestock husbandry and predator tolerance issues while assisting in improved livestock husbandry and improved understanding of predator issues. Baseline data collection on the animals taken to the dip was conducted in May - November 2007. Questions asked about recent diseases, effectiveness of the dip and attitudes towards cheetah and other wildlife. The report from these interviews complements the conflict interviews and increases CCFK's presence in the community. This report will also be available in early 2008.

(iv) Snare Removal Exercises

CCFK cooperated with the KWS Community Officer for the Machakos/Makueni/Kajiado region (Julius Manza) in organizing and implementing snare removal exercises with international and local community volunteers.

Public Education Activities

CCFK conducts education presentations to schools, communities and tourists on request. CCFK presentations to communities include showing educational videos, public speaking at baraza (community meetings) and informal discussions with various groups of people and communities. Information in the tourism presentation explains CCF links with local and international partners. CCFK staff remain members of the Kenya Professional Safari Guides Association as bronze members.

During this period, CCFK spoke at two *barazas* in July and October, allowing people to air their concerns about livestock losses to cheetah, and to develop solutions to their problems. To strengthen inter-Africa links, CCFK also actively participated in the Mpala Eastern Africa Regional Cheetah and Wild Dog Strategic Planning workshop in February 2007.

The development of programmes for schools and tourists directly benefit the recipients, and indirectly benefit those with whom the recipient shares information. 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, like cheetah, continue to thrive.

(v) School and Community Education

Local and international volunteers assist in drafting materials and activity pages to be used as supplemental material during school presentations. A volunteer with a local performing group, Knowledge is Power, from the slums of Nakuru town has created a play to use the plight of the cheetah in an educational act which presents the issue facing the conservation of Kenya's wildlife. This performance is available to schools as a part of the group's educational activities. CCFK will request the group during student events in 2008.

During this period, CCFK presented school programmes at four schools in Gilgil and Salama (500 students). CCFK also showed cheetah/leopard videos in nine communities (estimated attendance of over 2000 people) during July and August Surveys in Samburu and Isiolo Districts in cooperation with Save the Elephant and Ewaso Lion Projects.

(vi) Capacity Building

Research Assistant, Cosmas Wambua, was accepted into a Master's course at the Department of Biology, Ecological and Systematic Zoology in Addis Ababa University in Ethiopia in 2006. Following two terms of coursework in Ethiopia (November 2006 – July 2007), his fieldwork began in October 2007 to evaluate the ecological impact of the subdivision on habitat and prey base in the Salama area of the Kiu region. His studies complement the existing CCFK work in the region and provide a platform on which policy recommendations can be based for the land use in the area. Proposals are being evaluated for additional attachments of local and international students to supplement and compliment CCFK and KWS missions and studies.

(vii) Eco-tourism

Presentations are requested through a number of tourism organizations including US operator Classic Escapes, Canada Operator Simply Safaris, and Kenya operators JH Safari and Origin Safaris. Involvement with the tourism sector provides income through requested donations as well as allowing the opportunity to share information on the plight of the cheetah with local and international visitors. Information in the tourism presentation explains CCF links with local and international partners. Presentations were given to 18 tourist groups and their guides during 2007. Presentations were also given to members of EAWLS and Friends of Nairobi National Park, as well to US donors and interest groups with updates on Kenya cheetah conservation activities from 2006-2007.

Volunteer Programme

Local Kenya residents Amanda Perret, Cheryle Robinson and Alex Joji (Knowledge is Power) continue assisting with education materials, program development and fundraising activities. Intern Wallace Isaboke, from EAWLS assists with the national census project. Sarah Brooke volunteered as a research assistant for 10 months in 2007. Maxime Lapidaire worked for CCFK in January for the mentor programme through her secondary school in the Netherlands. Her father Hein and two teachers participated in school presentation, dip activity and radio tracking. Susanne Garrison and Christian Pilard (Eco-Sys Hong Kong) visited in May and October to evaluate their participation in education and craft programmes. Philippe Gavotto (Eco-Sys France), Wil Raymakers and Sandra Raymakers (Eco-Sys friends) also spent time with the CCFK team. Robert Joseph, Schlomit Hoffmann, Christine Weinbrenner, Carla Raniki, Sue Unger, Laila Bahaa-el-Din, Kristel Van Doorslaer, Taryn Danford, and Reid Yester were general volunteers who ranged from 2-6 weeks assisting with various projects in 2007. Elizabeth Fellows joined CCFK in November as an intern

from St. Lawrence University on the Independent Study portion of her international university program.

2. International Meetings

East African Regional Cheetah and Wild Dog Priority Setting Meeting and Kenya National Strategy Meeting

In February, Dr. Marker travelled to Kenya and attended two important workshops, along with Senior Research Assistant Mary Wykstra, in order to develop range-wide priority conservation plans for the cheetah and the African wild dog. CCF worked in collaboration with the Canid and Cat Specialist Groups of the IUCN and the Wildlife Conservation Society (WCS), to initiate a process for cheetah and wild dogs together, drawing on the synergies between the two species as they have very similar conservation requirements. The aims were to:

1. Identify priority sites for the conservation of wild dogs and cheetahs.
2. Foster appreciation for the need to conserve wild dogs and cheetahs, particularly at priority sites, among conservation practitioners in range states.
3. Develop local capacity to conserve cheetahs and wild dogs by implementing conservation action.
4. Encourage policymakers to incorporate wild dog and cheetah conservation requirements into land use planning at both national and regional scales.
5. Prepare specific global and national conservation action plans for both cheetahs and wild dogs.
6. Collate information on wild dog and cheetah distribution and abundance in an updateable database.

Following the week-long regional workshop, the plan was presented to the Kenya Wildlife Service for their national planning meeting.

Southern African Regional Cheetah and Wild Dog Priority setting Meeting and Botswana National Strategy Meeting

In early December, CCF's Dr. Laurie Marker and research assistants Matti Nghikembua and Ezekiel Fabiano, joined 35 other southern African and international cheetah and wild dog specialist in Botswana to develop a regional plan that encourages the incorporation of cheetah and wild dog conservation requirements into land use planning, human wildlife conflict resolution strategies on a regional scale, and the development of training and capacity building programs which can be adopted and implemented by southern African range countries. Following the regional meeting, a Botswana national workshop took place where the strategic regional goals were used to develop national goals and targets for long-term sustainability of these two species. Both the cheetah and wild dog have extremely large home ranges and live at low densities, with the majority of their populations living outside protected areas where conflict mitigation strategies must be employed. Due to the success of CCF's long-term projects, many of these served as models for the strategic planning process.

Coalition Against Wildlife Trafficking (CAWT)

While in Kenya, Dr. Marker also attended the inaugural meeting of the Coalition Against Wildlife Trafficking (CAWT), an initiative started by the Bureau of Oceans and International Scientific and Environmental Affairs. The U.S. Deputy of State Secretary Claudia McMurray chaired the meeting.

Two follow-up meetings were conducted by Dr. Marker, one in the UK in May and the other with the Deputy Secretary in Washington, DC.

Perspectives of Southern Africa

In August, Dr. Laurie Marker spoke at '*Perspectives of Southern Africa*' in Botswana, along with six wildlife experts and conservationists. The 3-day symposium, organised by *Wilderness Travel*, was framed by the beauty of legendary Chobe National Park, and was attended by 75 people, some of whom visited CCF Namibia following the symposium.

IUCN SSC Cat Specialist Group

(i) Southern African and Namibian Status Report

CCF sponsored a special issue of *Cat News*, which highlighted the accomplishments in cheetah conservation in the southern African region over the past few years. The reports from different countries prioritized research and conservation objectives for the future. CCF compiled the Namibian report, which presented the needs for conservation of cheetah outside and within protected areas, and problems facing the cheetah due to human-predator issues. The report highlighted extension and educational initiatives that have been implemented.

(ii) Cheetah Conservation Compendium

CCF has co-sponsored the Cheetah Compendium with the IUCN Cat Specialist group to bring together all information on cheetah. The "Cheetah Conservation Compendium" is a library and forum providing a collection of information, data, documents, maps and other material relevant to the conservation of the cheetah. It provides scientific baseline information, but also popular material, news and public political documents. It is a tool to share knowledge and experience, to manage this wealth of information, and to make all this readily available for institutions and individuals working in favour of the conservation of the cheetah. CCF has one of the world's largest libraries on cheetah – all data was put into PDF files and is now available in the Compendium.

International Conservation Caucus Foundation

For the fourth year in a row, CCF was welcomed into the US Congress along with a live ambassador cheetah. Dr. Marker, along with Kuzo, a cheetah from the Columbus Zoo in Ohio, met over 200 House and Senate staffers and supporters in the Natural Resource Chambers and made the front page of Capitol Hill's Roll Call Newspaper. US Representatives Ed Royce, John Tanner, Hal Rogers, Henry Brown, Jeff Flake, Madeleine Bordallo, Vic Snyder, and Sam Graves attended the briefing about CCF's model programs and bringing awareness to the Great Cats and Rare Canids Conservation Act. This bill, which is getting closer to law, will support threatened and endangered wild cats and dogs. The briefing was arranged by CCF Trustee, David Barron, of the International Conservation Caucus Foundation (ICCF).

Following on from the Washington DC cheetah briefing, in December, Drs. Bruce Brewer and Laurie Marker met up with David Barron, who was showing a group of congressional staff members from the International Conservation Caucus Foundation key issues surrounding conservation needs in Africa. CCF arranged for a visit to Cheetah Outreach where the group was able to meet cheetah and Anatolian Shepherd Livestock Guarding Dog ambassadors. CCF's work continues to

bring awareness to the Great Cats and Rare Canids Conservation Act. Several of the group considered meeting the cheetah one of the highlights of their trip.

Human-Leopard Conflict Management Workshop

In January, Dr. Marker participated in the Human-Leopard Conflict Management Workshop hosted by the Wildlife Trust of India. Due to a shrinking habitat, the leopard population of India is facing escalating conflict with humans. The leopards are "straying" into populated areas of the country leading to human deaths and retaliatory killings, as well as the capture of leopards by the public.

The Indian governmental agencies charged with monitoring the leopards have very little training and few policies that can assist them in addressing the human-wildlife interaction. This workshop was designed to put some programs in place that will help resolve some of the problems.

It is clear that many of the educational community-based initiatives that CCF has created over the years, if implemented in India, would greatly assist the government in saving the lives of people, leopards and the highly endangered tiger.

A paper from this workshop is being prepared for submission to the Cat Specialist Group Magazine for 2008.

Felid Biology and Conservation Conference – Oxford University

In September, the Felid Biology and Conservation Conference hosted by WildCRU and held at Dr. Marker's alma mater, the University of Oxford, brought together over 300 cat biologists for the first time in over 25 years. As one of the plenary speakers, Dr. Marker shared CCF's leading conservation programs and breakthrough successes, as did several other CCF collaborators.

European Association of Zoos and Aquaria (EAZA) Conference

Dr. Marker addressed the attendees of the European Association of Zoos and Aquaria (EAZA) Conference in Poland, and made connections with the European cheetah network. Several of the zoos have been ongoing supporters of CCF, like the Boras Zoo in Sweden. Their *Water for Cheetahs* program donates a percentage of every bottle of mineral water sold, to CCF.

Algeria Meetings

In December, Dr. Marker joined the CEO of the Sahara Conservation Fund and the Algerian cheetah research collaborator, Farid Belbachir, Assistant-Lecturer, Laboratoire d'Ecologie & Environnement from Faculté des Sciences de la Nature et de la Vie, at a invited meeting with the Algerian Minister of Environment as well as the Minister of Culture. The meetings were to discuss on-going collaboration in Algeria for both cheetah and endangered antelope and gazelle research and conservation. A Memorandum of Understanding from both non-government organizations was presented to the Ministries to formalize the relationship in this conservation work.

3 International Cheetah Studbook

The 2005 International Cheetah Studbook was mailed on CD to participating institutions and is available, together with studbooks from previous years, on CCF's website.

An overview of the captive cheetah population on 31 December 2005 was 1427 (709.687.31) animals in 247 facilities in 49 countries. Of the 1427 animals, 72% or 1027 (530.497) were captive-born and 22% or 310 (148.162) were wild born. During 2005, 164 (59.65.40) cubs were born in 48 litters in 27 facilities in 13 countries. Of the 164 cubs born, total cub deaths less than six months of age were 39 (15.9.15), which represent a 24% cub mortality.

The 2006 International Cheetah Studbook is in the final analysis stages and will be published in 2008. Support for the International Cheetah Studbook comes from CCF UK.

D. ASSOCIATION AND CONSERVANCY RELATIONSHIPS

1. Large Carnivore Management Association (LCMAN)

CCF staff member Bonnie Schumann continued as the LCMAN secretary following the AGM in May. A total of four meetings were held during the year with a variety of issues dealt with by the association. The most recent issues concern captive carnivores, hunting predators with dogs, and ways to reduce human-wildlife conflict. At the end of the year Bonnie Schumann passed the role of secretary on to Anne-Marie Stewart, who joined CCF in September.

2. Waterberg Conservancy

In July, the Waterberg Conservancy held its Annual General Meeting. The meeting was well attended and plans for the Annual Waterhole Count were finalized. CCF General Manager, Dr Bruce Brewer, was again elected as treasurer for the Conservancy.

Following the AGM, a historic meeting was held, hosted by the Waterberg Conservancy, to initiate the development of the Greater Waterberg Complex (GWC). The GWC represents a “smart public-private partnership” of custodians, managers and owners that share a common vision for the long-term management and development of the area. This development will be to the mutual socio-economic advantage of all participants, the fragile semi-arid environment and to biodiversity conservation.

The Ministry of Environment and Tourism (MET), in its Strategic Planning (2007), has embraced this notion of co-management approaches to landscapes and biodiversity across different land tenure systems where different land owners, custodians and managers work towards a common vision, objectives and outcomes, via agreed actions. It is therefore in support of the METs’ Vision and Strategic Plan towards co-management approaches, that the GWC was launched.

The GWC area covers some 1.77 million hectares and is comprised of the Waterberg Conservancy, consisting of freehold farms; the Waterberg Plateau Park; and four recently registered communal conservancies, namely the African Wild Dog, Okamatipati, Otjituuo and Ozonahi Conservancies. The founding meeting was attended by over 30 participants representing all stakeholders from the area and was facilitated by the Namibian Nature Foundation.

An additional two meetings have taken place and were attended by several CCF staff. CCF will continue to play a key role in this Complex as it develops.

3. Conservancy Association of Namibia (CANAM)

CCF works closely with CANAM and for the fourth year, CCF's Executive Director was elected as the Chairperson of CANAM. During the year, four meetings were held in which routine business was conducted. Business focused on several main themes through the year including utilization strategies for wildlife and the coordination of CANAM's goals with that of the Namibian Agriculture Union; the on-going discussion about CANAM's database; and cooperation with Communal Conservancies as it relates to wildlife management, utilization and tourism.

CANAM has also been invited to become a member of MET's Human Wildlife Conflict Forum and is being represented by Wilfred Pack. The Forum is developing National Strategies for: lions and other predators, elephants, hippopotamus, and crocodiles, and will be looking at important issues of concern including reporting procedures for problem animals (carnivores, elephants etc.), game farms as a haven for problem animals and the status of the Etosha National Park border fence. All of these issues have far reaching affects for conservation and conservancy members.

One of the main areas of action for CANAM's Executive Committee has been to continue relationship building with the Communal Conservancies. However, this continues to be a problem, as communication with Communal Conservancies is difficult. We continue to work towards a joint collaboration with the hopes of benefit sharing between both Conservancies' members as the ultimate goal for the future. CANAM will continue to work towards a goal where Communal and Freehold conservancies will work together to support integrated management thus allowing for optimal resource use, where the two organizations could evolve together over the years so that a combined conservancy conservation organization could be initiated.

The Government of the Republic of Namibia (GRN) recognizes the increasing value of the Tourism and Travel sector placing tourism as one of the four pillars of the Namibia national economy, and viewing tourism as the sector that offers the most significant potential and opportunity for long-term economic growth and development.

As such, it is good to know that tourism is deeply woven into a number of GRN development doctrines, especially when shown to generate employment, reduce poverty, empower local communities, and provide incentives for improved and sustainable natural resource management. CANAM needs to continue working closely together with the Communal Conservancies to keep natural resource management in the forefront of the government sector.

E. SUSTAINABLE ECONOMIC PROGRAMMES SUPPORTING LOCAL COMMUNITIES & CCF.

1. CCF Business Initiatives

Humans must co-exist with cheetah if the world's fastest cat is to survive in the wild. The following progress has been made on CCF's activities that assure the economic well being of people living within the cheetah's range and provide resources to support CCF's long-term activity.

Cheetah Country Beef

Meeting in March in the US: Initiates to work towards a Cheetah Country Beef certification process have concluded for the time being.

CCF will continue to work on this process and have found two prospective importers for the beef in the UK and Germany. Negotiations with MeatCo continue. Until further notice, CANAM is on hold on this project.

Bushblok

CCF Bush Pty Ltd sold both Bushblok and raw woodchip in 2007. Bushblok was packed for export shipment to the UK, South Africa, Germany, and the USA. Sales contacts were made with Portugal, The Netherlands and with other firms in the UK and Germany. Better sales were achieved within Namibia.

We provided raw woodchip and also blok rejects to a boiler co-firing test. It was successful and orders are expected for 2008. We began supplying hammer-milled woodchip to a new venture in Windhoek that will produce a composite wood.

To support expanded production, a new extrusion press line and a second wood chipper were obtained with the help of a USAID grant. The grant also supported the purchase of four woodchip transport trailers. The new trailers significantly improved the harvest/chip efficiency.

The Director of the Department of Forestry selected CCF Bush as a collaborator in a bio-energy study with Finnish experts. The study investigated the feasibility of small-scale biomass power plants. Extensive harvest tests were conducted in 2007 with various devices. A particular success was a “tree-terminator” hydraulic saw mounted on our skid steer. Also useful were a set of “flat-proof” tires for the skid steer.

CCF’s General Manager continued to liaise with the Charcoal Producer’s Association and was involved in the government’s efforts to establish a Woodland Management Council. There were also meetings with a group that will be developing a 500KW gassifier power plant in 2008. CCF Bush may become a fuel supplier to this project.

The Bushblok factory was subject to and easily passed a surprise health inspection by the Ministry of Labour. The original harvest and chipping contractor was dismissed for cause and a new contractor and team engaged. There were no staff changes at the factory.

2. Eco-Tourism

Over the past 15 years, Namibia reports that international tourism to the country has increased steadily, growing from 254,978 arrivals in 1993 to 777,890 arrivals in 2005. Tourism is expected to contribute 16.1% of the Namibia GDP and account for 74,300 jobs, or 18.5% of total employment, with a projected growth rate of 6.8% per annum for the next 10 years.

Further extrapolation of this growth rate means that by 2016 Travel & Tourism could generate 22.7% of Namibia’s GDP and supply employment for 1 of every 3.8 jobs in Namibia, with an average annual increase in tourism arrivals of 7.3% per annum through 2020.

CCF continues its eco-tourism activities. Beginning in 2003, Nuevas-Ideas, a Windhoek-based booking company, has been acting as CCF’s agent. In addition to guided tours through the Research and Education Centre, special tours can now be booked that give the visitor a special view of CCF’s

mission and provide close encounters with the cheetah itself. These activities include the Cheetah Run, a unique show on how CCF keeps its non-releasable cheetahs exercised; the Bellebeno Safari, a guided photographic tour through CCF's 64ha female cheetah enclosure; "Little Serengeti" – a sundown game viewing drive; and a special opportunity to join Dr. Laurie Marker and CCF's ambassador cheetah Chewbaaka, as he visits his favourite playtree in the Namibian bush.

During 2007, a total of 4800 visitors came to CCF of which over 80% were international. The first half of the year brought 1,700-day visitors, with over 3,100 day visitors in the second half of the year. About 10% of international visitors came via the pre-booked eco-tours. Of these, 502 watched the "Cheetah Run," while 225 people booked a "Bellebeno Safari," and 20 people booked a "Chewbaaka Exclusive." Our neighbours at the Waterberg Guest Farm booked 284 Little Serengeti drives throughout the year. Many of the booked runs and Bellebeno Safaris come as a result of our neighbouring lodges, in particular the Franz Indongo Lodge.

Babson Guest House

CCF has completed the Art Babson Guest House and is now ready to host overnight visitors. The two-bedroom Babson House accommodates up to four guests in luxurious and spacious surroundings. CCF has recently completed Namibian Tourism Board certification. Due to demand for accommodation on-site, this high-end guesthouse will provide interested visitors and donors and opportunity to enjoy more of the activities offered

VIP visitors and groups

20-24 February - Zara McDonald, Felidae Conservation Fund
3-4 March - Art Babson's 80th Birthday Party. 35 people
28 March - Dr Rob Little, Director Conservation, WWF South Africa
30 March - 2 April 2007 - James & Nicki Riesst, - winners of auction to visit CCF
17-18 April - Dr. Jelle Boersma – donor to CCF Rhino project
17-18 April - Cincinnati Zoo - 11 people including Cathryn Hilker
22-23 May – WCN. 15 people
20-23 May – Azumano Travel - 5 people
18 June - WWF Great Plains Study Tour
June - Noel Boyd – Board member, CCF UK
6 August – Orvis tour, 8 people
September - Peter Stewart, Board Secretary, CCF UK
September - Nigel and Jennifer Walley from CCF UK
October - Pat and Bill Miller – Founding board members CCF USA
October - Bo Kjellson– Boras Zoo
10 November - CCF Namibian Board of Directors
December - Fiona McKenzie from the UK Biosphere programme
December - Gwen Myers – Veterinarian from the Columbus Zoo
December - Berend van Wijk – Professor from Van Hall Laurenstein University, Netherlands

IV. EDUCATION

Public education and the development of an active grassroots constituency are integral components of CCF's overall cheetah conservation programme. CCF educates farmers, teachers and the public

about the need to conserve Namibia's rich biodiversity and the role of the cheetah and other predators in healthy ecosystems. Public education and the development of national pride in the cheetah are critical to its survival.

The CCF introductory video has been produced with German sub-titles, and is currently in the process of being translated into Italian as well. The Education Centre panels have been translated into German by former CCF volunteers.

A. FARMERS' TRAINING

A total of eleven courses were offered in 2007, 4 in the first half and 7 in the second, with a total of 251 participants. The target groups were communal, resettled and emerging commercial farmers as well as farm workers and managers. It is interesting to note that in many cases the whole farming family, including farm workers, participated in various courses / parts of the programme. A range of new training courses have been developed and added to CCF's courses in order to more specifically address the needs of the farming community. Courses were financially and otherwise (providing expertise) supported by various industry stakeholders and other partners in farmer development. These include, as main sponsors, Agra Co-operative, The Meat Board of Namibia, The Meat Corporation of Namibia, First National Bank of Namibia and the Agricultural Bank of Namibia. In addition, the European Union funded Emerging Commercial Farmers Support Programme funded two courses.

Courses presented were as follows:

- The practical farming course, targeting the not-so-literate farming community and farm workers, was presented five times during the year to 109 participants. The course is aimed at improving the farmers and farm workers' understanding of farming production principles and systems, as well as providing hands-on practical training. Participants tackled a variety of practical farming aspects with enthusiasm, from animal health, vaccination programmes and wound treatment, to predator kill identification.
- The Integrated Livestock and Predator Management Course, which can be regarded as an introductory course, was presented only once in the second half of the year to 15 farmers. Most of the participants of other courses had attended this course in 2006.
- The Financial Farm Management Course was presented three times and was attended by 69 farmers. The course provided a comprehensive overview of farming finances and focussed on sound financial decision making and planning, as well as involving farmers in integrated livestock and predator management.
- The Livestock Marketing and Management Course is a new addition and was presented to 25 farmers in December. It focussed on determining marketed related prices of livestock, marketing and production management, as well as providing an overview of the national and international industry, including shifting consumer requirements. CCF's Cheetah Country Beef initiative formed part of the programme.
- An adapted version of the Integrated Livestock and Predator Management Course was presented to 33 high school learners in the December holidays. The participants were the sons and daughters of Namibian farmers, most of whom had attended previous courses.

The approach to sustainable farm management forms the basis for all courses and throughout all courses there is a focus on the economic viability, social acceptability and most importantly on the environmental soundness of production practices.

The courses were presented by staff members Günther Roeber, Bonnie Schumann, Anne-Marie Stewart and Gebhardt Nikanor. Dr. Axel Hartmann presented a practical session on livestock husbandry and animal health. CCF's farmer training programmes generated two press releases during 2007 (together with Agra Cooperative), and seven articles covered by the local media.

Final negotiations are under way with the Emerging Commercial Farmers Support Programme (ECFSP), who have received funding to finance various farmer development programmes to cover costs of training courses over the next two years.

B. PRIMARY THROUGH HIGH SCHOOL OUTREACH

During 2007, outreach programs were given by CCF's education officer, Gebhardt Nikanor at 44 schools throughout Namibia, reaching 7,108 students. In the first half of the year, 16 schools were visited in Kamanjab, Otavi, Khorixas, Fransfontein, Uis and Okombahe, reaching 1,490 students. The second half of the year, 28 schools were visited, totalling 5618 learners. The schools were situated in Rehoboth, Grootfontein, Tsumeb, Gobabis and Epukiro.

Organised education programmes at CCF are designed mainly for groups accommodated at CCF's tented Camp Lightfoot. CCF hosts school and community groups, exposing them to different environmental education activities including a Nature Trail, team building activities, games and other environmental awareness activities. Groups usually spend two nights with CCF. All participants are exposed to CCF research and conservation efforts by presentations and to the Namibian farmland ecosystem through the nature trail and a game drive through CCF's Little Serengeti. Team-building activities are designed to highlight the importance of team efforts in conservation. Role-play and drama are also included in the programme and include scenarios of livestock and predator management.

In total 577 people participated in our CCF Centre programmes, which includes students, teachers and youth group members. This number does not include tourists or farmers. During the first half of the year, six groups (one youth group [Canada-Namibian Leadership Exchange Youth Program] & five Namibian schools [Okakarara High School, Okaepe Project School, Delta Secondary School, Onyosa Trust- Kids & Mondesa Kids]) visited, totalling 107 individuals.

During the second half of the year, 15 educational groups visited the CCF Education Centre. Of these, 13 were school groups and two were youth groups. A total of 32 youth members and 438 school learners participated. These groups came from various areas across Namibia, including Windhoek, Swakopmund, Usakos, Karibib, Ondangwa, Okamatapati and Hochfeld. All of these groups stayed at CCF's campsite.

C. COMMUNITY OUTREACH

Staff members also travelled to Tsumkwe in March to present a three-day training course to 14 game guards from the Naye Naye Conservancy. The course was sponsored by the Naye Naye Development Foundation and dealt with carnivore behaviour and ecology and kill identification. Gebhardt Nikanor

and Engelhardt !Awaseb travelled to the Torra Conservancy to speak to members about human-wildlife conflict issues in March. Conservancy members are experiencing increasing predator problems, and the reports of conflict with cheetah are on the increase in this area.

The Meat Board of Namibia held an information day in Windhoek for emerging commercial farmers at which Günther Roeber gave a presentation on sustainable herd management. Günther was also invited to give a presentation on financial farm management at a farmers' day organised by Mrs Clara Bohitile (Emerging Farmer of the Year 2006) and the Nina Farmers Association. Günther and Bonnie also attended a meeting at the Osire-Waterberg Farmers Association to talk about predator-livestock conflict and CCF's farmers' development programmes. In addition CCF attended the Platveld Farmer's Association general meeting as well as a special interest meeting on carnivore-conflict related issues.

CCF attended four agricultural shows and/or trade fairs in Grootfontein, Okakarara and Windhoek during September and October. One gold award and two 3rd prizes were earned in the information/education categories. The displays and the core message focused on CCF's Future Farmers of Africa Programme (farmers' training programme), with CCF's Bushblok project adding to the display at the Windhoek Trade Fair. This initiative was effective in informing the broad farming community about CCF's integrated livestock and predator management approach and the various farmer development opportunities offered. Furthermore, the desire of youths to participate in these programmes was identified, giving rise to the first high school learners' course presented at CCF in December 2007.

Agra, in partnership with CCF, presented two public lectures for Namibian farmers. The first event, officially launched by the Minister of Education, Honourable Nangolo Mbumba, took place in Windhoek during August 2007. About 100 farmers attended the event. Another public lecture was presented during November in Grootfontein and was attended by approximately 40 farmers. Lectures focused on auctioneering and marketing of livestock, conservancies on commercial farmland, the integrated livestock and predator management approach, livestock health and supplementation and an introduction to sustainable farm management. Presentations were made by Agra's and CCF's staff members, farmer conservancy members and animal specialists (feeding and nutrition).

Dr Laurie Marker and Bonnie Schumann attended a meeting of the Hochfeld Farmers' Association and made a presentation on the management of livestock to prevent losses to predators. Resulting discussions were very fruitful and assisted livestock farmers to gain a deeper insight into the importance and benefits of following an integrated livestock and predator management approach.

D. OTHER COLLABORATION WITH EDUCATIONAL INSTITUTIONS

- CCF regularly hosts students for short educational programmes. During this reporting period, a group of 7 students from the University of Namibia (UNAM) visited CCF to participate in a mini field biology course taught by CCF staff members Ezekiel Fabiano and Matti Nghikembua.
- The Earth Expeditions course through Miami University and Cincinnati Zoo brought 25 educators, from first grade teachers to university professors, to CCF to study community-based conservation. The Earth Expeditions educators participated in the Waterberg Conservancy 24-hour waterhole count during which they were paired with Namibian youths. By studying CCF's model of community involvement in conservation, the educators have returned to the USA with a

greater understanding of the diverse issues facing cheetah conservation, from land-use management to public perceptions and attitudes.

- Courtney Van Dijk, a master's student in Environmental Education at Lakehead University in Thunderbay, Ontario, spent 3 months at CCF doing research for her thesis. During her stay she also provided new activities, not only for the learners visiting CCF, but also for teachers in Otjiwarongo. She initiated a workshop for local teachers to learn more about implementing Environmental Education in schools and led them through activities that could be shared with their students.
- In June, vet student Lauren Harris, from Colorado State University, completed a parasite study in which she assessed faecal samples taken from our domestic animals as well as samples from cheetahs that were provided by a team of reproductive scientists studying female cheetah reproductive physiology. With the 117 samples collected, she identified parasites found in wildlife living in wild versus domestic habitats, and parasites found in domestic animals.
- Dartmouth University brought 19 students on the Africa Foreign Studies Program. Their ten-week tour of southern Africa focused on environmental issues and social and political aspects of development and conservation. The group spent 2 days at CCF learning about issues regarding human wildlife conflict and conservation.
- The Travelling school came back for another year to spend 2 days at CCF. This is a group of high school students from the United States that spend 3 months travelling through Southern Africa. They participated in educational activities and also helped with the nature trail and clearing of cheetah pens.
- IE3 Global Internships in Oregon continue to send students from Oregon Universities. This year, two students from Oregon State University completed 3-month internships at CCF.
- 17 university students from Canada, England, Germany and the United States completed internships at CCF.

E. IN-SERVICE TRAINING

CCF provided six months of in-service training to three Namibian students. Their contributions are as follows:

- Liana Mbako, a second-year nature conservation student from the Polytechnic of the Namibia conducted a study on the invasion of the CCF Big Field by the *Nidorella recidifolia* species, a wild herb with yellow flowers.
- Gabriel Angala, a third-year Travel and Tourism student at the International Training College Lingua, completed his in-service training at CCF. Gabriel is currently responsible for taking care of visitors at the education centre.
- Hiskia Mbura, a fourth-year agriculture management student from the Polytechnic of the Namibia assisted with CCF's Farmer Training Courses.

F. CCF STAFF EDUCATION

- Research Assistant Ezekiel Fabiano, completed his Master's thesis in 2006, and will start his literature review for submission of a proposal for his Doctorate degree.
- Research Assistant Matti Nghikembua is currently completing his Masters' in Development Studies with the University of the Orange Free State. Matti received the Sidney Byers Scholarship for Wildlife Conservation towards his studies. Matti Nghikembua attended the first session offered by the Emerging Wildlife Conservation Leaders (EWCL) held at the White Oak Conservation centre, Florida USA. The training aims to strengthen leadership capacity amongst upcoming conservationists. The course is made possible by the Gilman International Conservation Foundation, US Fish and Wildlife Services, Defenders of Wildlife and the Wildlife Conservation Network.
- Senior Research Assistant Bonnie Schumann is in the process of completing her Masters' with the University of Technology, Cape Town, on "A needs assessment of emerging commercial farmers in relation to the activities of the carnivore NGOs." Bonnie received the Sidney Byers Scholarship for Wildlife Conservation towards her studies.
- Agricultural Training and Development Officer Günter Roeber successfully completed the 2nd year of his studies for a Masters in Sustainable Agriculture at the University of the Free State. Next year he will work on his mini thesis, focussing on technology transfer in the context of farmer training and development programmes
- CCF Kenya Research Assistant, Cosmas Wambua, was accepted into a Master's course at the Department of Biology, Ecological and Systematic Zoology in Addis Ababa University in Ethiopia in 2006. Following two terms of coursework in Ethiopia (November 2006 – July 2007), his fieldwork began in October 2007 to evaluate the ecological impact of the subdivision on habitat and prey base in the Salama area of the Kiu region. His studies complement the existing CCFK work in the region and provide a platform on which policy recommendations can be based for the land use in the area.

V. ORGANIZATIONAL ACTIVITIES

A. FUNDRAISING

1. CCF Namibia's Annual Gala Dinner

For the eighth year, the Cheetah Conservation Fund organized its Annual Fundraising Gala Dinner, A Celebration of Speed and Elegance, which was held at the Windhoek Country Club on the 28th of July. This year's theme, *Keeping Cheetahs Wild and Free*, highlighted CCF's efforts to ensure the survival of Namibia's cheetah.

Cheetah Conservation Farmers of the Year Awards were presented to Mr. Leon Cloete, from Rehoboth, and to Mr. Piet and Mrs. Christine Stoman, from Otavi, who through their acceptance of predators as a natural component of a friendly ecosystem, have demonstrated that predator conservation is not contrary to the needs of humans.

The keynote speaker and guest of honour was Namibian President, His Excellency Hifikepunye Pohamba, and special guest speakers, Dr. Holly Dublin, Chair of the Species Survival Commission (SSC) at the World Conservation Union (IUCN) and Mrs. Jackie Asheke, CEO of the Federation of

Namibian Tourism Association (FENETA) helped make the event a very special evening. Over 300 guests enjoyed great entertainment, a candlelight dinner and a Silent Auction of over 100 items donated by local businesses. The event brought in a total of N\$62,064 (US\$8,906.00) for CCF's research, education and conservation work.

2. CCF USA REVIEW

CCF's Annual Board Meeting was held last spring at the Cosmos Club. During the meeting, the Board elected Robert Mahoney, CT (Treasurer); Dan Beringer, NY; Robert Ludlow, CA; Beth Wallace, VA, as Board members and Angela Weisskopf, MD, as Trustee.

U.S. Tours

CCF's Senior Research Assistant Ezekiel Fabiano travelled to the U.S. for the first time to attend a genetics course at the Hawaii Institute of Marine Biology in January. The course was sponsored by the American Genetics Association, and directed by our CCF U.S. Chair Dr. Stephen O'Brien, Chief of the Laboratory of Genomic Diversity and the Section of Genomics at the National Institutes of Health (NIH). 20 young scientists from 16 countries attended the course to solve problems affecting humans and other species in the field of genetics. Fabiano also had an opportunity to exchange views with and learn from scientists and colleagues at Princeton University, North Carolina State University, the National Zoo's Conservation and Research Centre, NIH, and Conservation International.

CCF Namibia's Senior Research Assistant, Matti Nghikembua, had the opportunity to tour the US this spring. Matti was chosen to participate in an Emerging Wildlife Conservation Leaders (EWCL) training course in Florida. After this course, Matti travelled to several cities to give a CCF lecture and also participated in the CCF Arizona Run for the Cheetah. Matti also met with CCF chapter members, associates and supporters in Jacksonville, FL; San Jose, CA; Portland, OR; Seattle, WA; Phoenix, AZ; Cleveland and Columbus, OH.

CCF Kenya's Program Director, Mary Wykstra, travelled through the U.S., giving lectures at zoos and schools in 13 cities/five states. Kenya crafts were featured at each of the venues.

Dr. Laurie Marker's 2007 Spring Tour included 10 cities in eight states that included lectures, meetings, fundraisings and chapter events, as described below. Her 2007 Fall Tour included 16 cities and 9 states.

(i) Government Relations

Dr. Marker attended congressional and embassy meetings in Washington, D.C. during her 2007 spring tour, and in the autumn, CCF and Kuzo, a cheetah from the Columbus Zoo in Ohio, made the front page of Capitol Hill's Roll Call Newspaper and met over 200 House and Senate staffers and supporters. Representatives Ed Royce, John Tanner, Hal Rogers, Henry Brown, Jeff Flake, Madeleine Bordallo, Vic Snyder, and Sam Graves attended the briefing about CCF's model programs, and awareness to the Great Cats and Rare Canids Conservation Act. This bill, which is getting closer to law, will support threatened and endangered wild cats and dogs. The event was organised by CCF Trustee and the International Conservation Caucus Foundation.

(ii) Lectures/Speaking Engagements

During this year's spring tour, Dr. Marker gave a lecture at the Sausalito Women's Club (Sausalito, California), with about 75 attendees. She also visited Princeton University to lecture on "Cheetah Futures" to the school of African and Environmental Studies. This was a great way to communicate on a university level with students and faculty with the incentive to come to CCF Namibia. At the White Oak Conference Centre in Jacksonville, FL, Dr. Marker attended the founding meeting of the Wildlife Enterprise Network and gave a talk on CCF's collaboration with farmers on Cheetah Country Beef and Bushblok. Wildlife Enterprise Network has the aspirations to umbrella a logo for projects that support community-based wildlife products. While at White Oak, Dr. Marker visited some of CCF's Namibian cheetahs that went to White Oak in 2001. These cheetahs have already produced nine litters and many of their cubs are being moved to other breeding centres in the US.

During her Fall Tour, Dr. Marker lectured at the San Francisco Commonwealth Club. The lecture was organized by CCF supporter Bob Page and was broadcast to radio stations nationally. As a Fellow of Charlie Knowles' Wildlife Conservation Network (WCN), Dr. Marker presented for the sixth year at the Conservation Expo. Mary Wykstra, Program Director of CCF Kenya, assisted in presenting the joint efforts for cheetah conservation in Kenya using Namibia programmes as a model. The Expo presented CCF with a good opportunity to network with other global conservationists, and to meet with many of our key donors in the Bay Area. Also in the fall, Dr. Autumn Davidson, Tom Baker and Dr. Marker gave a joint talk highlighting CCF's current reproductive success, at the Animal Care Center in Rohnert Park (Santa Rosa, CA) and again at Safari West's annual fundraising dinner. CCF supporter Chris Osekoski nominated Dr. Marker to attend Pop!Tech, a three-day summit held in Camden, Maine, that brings together visionary thinkers in the field of science, technology, business, education and conservation. Dr. Marker was given a fellowship to attend this distinguished gathering. Dr. Marker also spoke at Lynn University and the St. Andrews School, marking the beginning of a long-term relationship with both institutions.

Mary Wykstra gave presentations at Chime Elementary in Kalamazoo (MI), Olympus Junior High School (UT), Park City Cub Scout (Utah), Grand Rapids and Wayand Middle Schools (Michigan).

(iii) Chapter/Supporter Events

In Miami, Florida, CCF's major sponsor Boca Developers hosted "Moonlight and Drums," a media extravaganza and huge fundraising event for CCF's continued research. Jane, Lorenzo and former CCF Intern Carla Bernal hosted a benefit reception for CCF at the Bath & Tennis Club in Boca.

CCF Trustee Susan Babson and Dr. Marker participated in the 4th Annual New York Persian Parade to create awareness of the endangered cheetah in Africa and Iran.

The West Coast leg of Dr. Marker's spring tour included a private fundraising party hosted by Willy and Eileen Ma in LA/ Pasadena. Willy and Eileen had recently visited CCF Namibia and came away with the idea to help support CCF in their hometown by hosting a fantastic fundraiser attended by 135 people who enjoyed music, met live cheetahs from Leopards, Etc., and participated in a silent auction to help support the plight of the cheetah.

In the San Francisco area of Northern California, Zara McDonald from Felidae Conservation Fund, who had just returned from Namibia in February, hosted an evening with her foundation benefiting CCF. WCN's Charlie Knowles hosted a dinner for CCF supporters, while Cindy Campbell from the

NO CA Chapter hosted a party at her home called "Friends of CCF." It was great to see all our volunteers and chapter friends again. Also, Bob Page in Sausalito hosted a small dinner party. In the fall, Dr. Marker was hosted at several private dinners including a second gathering at Zara McDonald's home, and a fundraiser at Cindy Campbell and Harry and Laurie Payne's home, where Rob and Barb Dicely of Leopards, Etc. introduced their beautiful ambassador cheetahs, Kamau and Kgosi to over 80 new CCF's supporters.

In D.C., Beth Wallace organised a dinner for the D.C. Chapter, while CCF Board of Director Moses Thompson and his wife Holli hosted a send-off party for Dr. Marker at their home in Marshall, VA, providing her with a valuable opportunity to meet new supporters from the Virginia area. In the Fall, cheetah ambassador Kuzo and handler Suzi Rapp, from the Columbus Zoo, attended two events: the annual DC Chapter fundraising benefit held this year at Harbour Square, led by CCF Board member Beth Wallace and hosted by CCF volunteer Liz Hoopes Karch was a tremendous success. A school assembly/fundraiser at the Wakefield School in The Plains, VA was organised by Board member Moses Thompson and Holli Thompson. Peter Quinn, the headmaster for Wakefield along with the Thompsons are now working with CCF to develop a formal student exchange program so that the students may continue their efforts to save the wild cheetah. Also during the Fall Tour, Smithsonian Institution National Zoo's Director John Berry and Senior Scientist Dr. David Wildt gave a special tour of the newly constructed Cheetah Science Facility at the Conservation and Research Centre in Front Royal, VA for CCF and key donors. Dr. Adrienne Crosier shared data reflective of our pioneering long-term collaboration in cheetah biology and reproductive research.

Chef Kenny Giambalvo hosted a successful fundraising dinner at his famous Portland Bluehour Restaurant. Ambassador cheetahs Kamau and Kgosi helped bring awareness to the plight of this beautiful animal. A large crowd was also on hand to hear my talk with the cheetahs at REI.

In Chicago, the first official fundraising Gala organized by the CCF Chicago Chapter was held at the Museum of Contemporary Art. The event, catered by Wolfgang Puck, was attended by more than 120 new friends. CCF's Senior Research Assistant Ezekiel Fabiano participated in CCF Chapter meetings in Chicago and Washington, D.C. during his trip to the U.S.

Dr. Marker was hosted in October by Jen and Glen Axelrod at their Estate in Colts Neck, New Jersey. The fundraising party organized by past CCF Intern, Ronit Kobrinski, included music, llamas and a silent auction of rare artefacts. Christine Bartos of the Philadelphia Zoo introduced Finn, a scat detection dog that will join our CCF Namibia genetic census team in 2008.

In Boston, Dr. Marker had the opportunity to meet CCF's sponsors of the orphan cheetah Kanini, the DuBois. When their son Alistair was born, they adopted Kanini in his name. Grandmother Michelle DuBois was an Earthwatch volunteer at CCF.

CCF's Trustee Susan Babson attended the 25th Anniversary of the Southeastern Wildlife Exposition (SEWE) in February and set up a CCF booth. The event attracts an annual attendance of over 40,000 from all over the world. Susan exhibited the Audi/Cheetah car and sold CCF memorabilia as well as offering to the public a special cheetah print by the 2007 Featured Artist of SEWE, Edward Aldrich.

(iv) Zoos

CCF's Senior Research Assistant Ezekiel Fabiano gave talks to the Brookfield Zoo.

In Columbus, Ohio, Dr. Marker visited with Jack Hanna at the Columbus Zoo and thanked them wholeheartedly for the zoo's Cheetah Outreach Program. Their support of CCF is very important, and to have this symbiotic relationship with zoos in general only enhances the chances to complete our mission of saving the cheetah from extinction, which is so boldly represented through the awareness campaigns of zoos.

Mary Wykstra, gave lectures at Binder Park Zoo (Michigan), Toledo, Cleveland and Columbus zoos (Ohio), Utah's Hogle Zoo (Utah), attended the AZA Conference in Philadelphia, Pennsylvania, and presented at the AAZK Conference in Galveston, Texas.

(v) Other Events

CCF Arizona – Run for the Cheetah

The 2007 Run for the Cheetah in Phoenix, Arizona on April 21, 2007 was a huge success and raised more than \$17,500 that directly benefits CCF's efforts to save the cheetah in the wild. More than 800 people attended the event including CCF's Senior Research Assistant, Matti Nghikembua. CheetahKids.com raised more than \$500 for CCF on the day of the Run for the Cheetah and then doubled it through a match request to Orvis.

The events, organized by CCF Arizona's Chapter Head, Claudia Whitehead, and a group of dedicated volunteers, included the Run for the Cheetah and a Kids Cheetah Dash. This year's events were made possible thanks to Peter Busch from Channel 5 who made announcements at the event, as well as all the sponsors: Montrail, Columbia Sportswear, Tucson Chapter of AAZK, REI, CheetahKids.com, the Phoenix Zoo, Wolf Creek Productions, Harkins Theatres, West Valley Magazine and Watermill Express.

CCF Oregon – Run for the Cheetah

The 3rd Annual Run for the Cheetah and Big.Cat.Big.Party held at the Oregon Zoo was again successful with over 517 runners. Kamau and Kgosi were again in attendance. Huge thanks go to CCF Trustee and Run Chairwoman Teresa Delaney along with John Van Allen, CCF Oregon Chapter Head, Jen and Dave Bell, and the great volunteer group.

3. CCF UK

Dr. Laurie Marker returned to the UK in May for her fourth annual Spring Tour, where she attended a fundraiser at the London University's School of Oriental and African Studies (SOAS), organised by Friends of Conservation UK. Throughout her visit, Dr. Marker met with numerous CCF sponsors, colleagues and scientific advisors at Oxford University.

During this tour, Dr. Marker returned for the second time to the Waterford Branch of the Irish Wildlife Trust (IWT) for a very well attended lecture. While in Ireland she also met with management of the Fota Wildlife Park in County Cork to thank them for their continued support.

4. CCF Japan (CCFJ)

Due to possible conflict with non-profit laws in Japan, CCFJ is now registered as an intermediate cooperation organisation with an office within the Shion Corporation offices.

CCFJ's staff has produced educational panels and newsletters to aid in promoting CCF's work amongst selected groups and organisations. CCFJ participated in a forum at the Tokyo Communication Arts School in June. CCFJ is looking into continuing this relationship to encourage ecology students to get involved in cheetah conservation. CCFJ also participated in the Tourism & Transport Club of Japan (TTCJ)'s annual meeting. TTCJ is the only organisation in Japan for travel industry members and executives.

CCFJ also made a slide show presentation at the Nature Info Plaza Marunouchi Saezurikan operated by Mitsubishi Real Estate Co., Ltd, and participated in the publication party of the book "Heartbeat of the Savannah" by CCFJ's honorary member and wildlife photographer, Jun Imura.

Finally, in an effort to establish collaboration with Japanese zoos, CCFJ gave an introductory presentation about CCF to Tama Zoo representatives in December.

5. SPOTS Foundation - Netherlands

In the spring of 2007, Dr. Marker made her first tour of the Netherlands, where CCF's fundraising partner, Stitching SPOTS, organized an extensive program, including a visit to the Amersfoort Zoo and a lecture at Beekse Bergen Zoo. Long-time Turkish friend Mustafa Sonmezer, and dog breeder Abdullah Cakir provided two Kangal livestock guarding dogs, which gave visitors at Amersfoort an opportunity to meet the same kind of dogs used for CCF's Livestock Guarding Dog Program.

The SPOTS program also included a dinner with a group of cheetah sponsors, discussions with one of CCF's corporate sponsors, VibroGym International (with which an MOU was signed later in the year), and a meeting with cheetah supporters Mark & Zwaantje Fransen. The Fransens have travelled extensively throughout Central America, Mexico, Asia, and Africa, with a stuffed cheetah they have named CAP. The Fransens and CAP's goal is to educate people about issues facing the cheetah.

While in Holland, Dr. Marker met with Africa Parks' representatives regarding cheetah conservation strategies in Ethiopia, and with *Cheetah Friends Europe (CFE)*, which has been supporting some of CCF Kenya's research, at the *Zoo Parc Overloon*. *Overloon* has recently acquired cheetahs, and thus Dr. Marker was able to talk with their staff about their cheetahs as well as CCF's conservation strategies.

SPOTS' activities to raise awareness about the cheetah during this period included participation in the National Pet Days, held last May at the RAI Conference Centre in Amsterdam. People gathered around the SPOTS' stand, attracted by the presence of two adult Kangals and two puppies, and learned about CCF's Livestock Guarding Dog Programme. On World Animal Day (4 October), SPOTS attempted to break a world record of "the longest painting by numbers" with the help of more than 500 children, while CCF's supporter and Formula 1 driver, Christijan Albers, opened the event by driving his own Porsche through Etten-Leur.

SPOTS members currently provide full sponsorship of CCF's resident cheetah Blondie and cheetah Leia is nearly fully sponsored.

B. OTHER INTERNATIONAL

During her trip to Europe to attend the EAZA Conference in Poland, Dr. Marker travelled to Germany, where she met with CCF's Namibian Board member Jane Katjavivi, and her husband, Namibian Ambassador to Germany, Peter Katjavivi, to update them on the conservation efforts for the Greater Waterberg Complex that links together our communal and commercial areas and the Waterberg Park of which we are a part. Discussions included increasing CCF's presence in Germany, where CCF would like to extend its fundraising efforts and donor support.

CCF was active for the first time in Mexico City last May, where Patricia Tricorache, Assistant Director - International Programs, was invited to give a lecture to the Liceo Franco Mexicano's 5th grade class during her holidays. Patricia's lecture was filled with questions and excitement, as this was the first lecture of its kind given at this school. She has been invited to return to the school during her next trip to Mexico. Patricia is also working with groups in Italy, Germany and France, with the objective of developing local CCF fundraising arms in those countries.

C. WEB SITE

1. Improvements

The CCF web site (www.cheetah.org) has continued to be re-vamped. During this reporting period, over 1000 updates, changes and additions were performed. These include a user-friendlier main menu, the addition of scientific papers, the 2005 Cheetah Studbook, the 2006 Annual Report, Welcome to CCF video, Kids4Cheetahs, Wish List and Volunteer stories, 36 news items, Dr. Marker's spring tour and other cheetah-related events. Modifications or improvements were made throughout the web site, in particular the CCF Kenya, Visiting CCF Namibia, and Volunteer sections.

Due to the Cheetah Shop closing in May 2007, the Cheetah Shopping section has been restructured to emphasize other shopping options to support CCF, such as Artists Helping Cheetahs and Shopping for Cheetahs, a section that includes various online web sites that donate a portion of their proceeds to CCF.

In an effort to reduce fulfilment costs, a new offering for donors was added: downloadable membership as well as dog and cheetah sponsorship certificates and photos are now available to donors who utilize the CCF web site. Similarly, donations have been consolidated to eliminate Memberships and General donations.

In January, Google Analytics was incorporated to the CCF web site. This tool will allow CCF to track web site traffic more accurately.

The CheetahNews blog, implemented in July 2005 as an exclusive benefit for cheetah sponsors, is now available to all online donors. During this period, 64 cheetah updates and 19 other blog posts were added. In addition, CCF now participates in wildlifedirect.org, a collection of blogs by various African conservation organisations, and is negotiating a contract to receive donations through that web site.

2. Public Relations

CCF staff handled nearly 1000 web-originated inquiries during 2007 (800 were handled during 2006), ranging from addressing Guest Book comments to kids requesting assistance with school projects and donor inquiries, to questions about CCF's policies on issues such as hunting or captive cheetahs.

D. DONOR LOYALTY PROGRAMMES

CCF seeks to increase donor loyalty. Since early 2004, CCF has launched programmes that offer supporters the option to become a part of the CCF's "Cheetah Family." These include yearly memberships, dog and wild cheetah adoptions, and CCF's non-releasable cheetahs sponsorships. These programmes are available through the CCF USA and CCF UK web sites. In August, a new option, recurring donations, was added.

During this period, CCF sent out two cheetah updates to approximately 250 sponsors, and sent eight eLetters and appeals (Chewbaaka Challenge and Year-end Challenge) to an average of 13,000 e-mail recipients. A new vehicle for e-mail blasts, Streamsend, was added in November. Streamsend, a web-based communication tool, allows subscribe/unsubscribe requests, and tracking of opened/forwarded e-mails.

E. PR AND MARKETING

1. Advertising

CCF supporters and EW volunteers, Richard and Margaret Schmidt from Washington DC, continued a very successful placement of a free, public service ad for CCF in National Geographic overseas edition for Africa and Middle East (circ: 50,000) in January 2007.

CCF UK placed a ¼-page ad on the BBC Wildlife Magazine issue of January 2008.

Two new CCF videos were added to YouTube.com in 2007: a 9:25-min. video, featuring Dr. Laurie Marker and titled "Welcome to the Cheetah Conservation Fund" (June) and a 3:57-min video, "Holiday Message from Dr. Laurie Marker" (November). Since then, these videos have been seen 4,000 and 3,000 times, respectively, and have 4.5-star ratings out of 5. Meanwhile, two videos produced by CCF Oregon supporter and producer Paul Garrett: an introductory 1:30-min video and an 8-min overview have been viewed over 25,000 times and 9,000 times, respectively, since August 2006. The videos can also be seen on the CCF and CCF UK web sites. A 30-second Run for the Cheetah promotional video also on YouTube.com has been seen 13,000 times since September 2006. Finally, a year-end, 4-min video appeal was posted on YouTube.com in late November and has been viewed 1,990 times. All videos have received very positive comments.

Earthwatch volunteer, Jeanne McManaman, designed a new brochure for CCF outlining the different activities offered at the Namibian centre. This brochure will be placed at lodges and tourist centres throughout Namibia.

The Pet Gazette, a California-based newsletter also published on the Internet, ran two ½-page ads promoting CCF's Cheetah Sponsorship Program during its November/December and Holiday Issue January/February 2008. This publication is ran by Lorie Zerweck, a CCF supporter.

2. Media

Press Releases – Overall, 15 press releases were submitted to Namibian media, and to southern Africa, U.S. or internationally when pertinent.

Visiting Media - CCF hosted one international film crews and/or production houses for a documentary on CCF by Al Jazeera English. An Australian film crew from the travel show Getaway visited CCF to produce a short segment that aired this year.

Media Inquiries and Interviews - CCF staff handled 28 media inquiries including three radio interviews, 16 article interviews/contributions/review, six initial approaches for TV programs, and three image or footage requests.

Other CCF and/or Cheetah-related Coverage - In addition to media articles generated by press releases on farmers' training courses and cheetah reproductive research, 21 articles were published, most relating to key cheetah conservation efforts, including an article regarding CCF Bush's participation in research to generate electricity from invader bush. Six articles were written by ex-volunteers or groups visiting CCF Namibia. One article featured CCF Kenya work, with input by CCF's Kenya Representative, Mary Wykstra.

For full listing and details see Appendix 2.

3. Collaboration with writers and publishers

CCF received an image request for an educational non-fiction book for grade 4-5 about poaching in Africa. The publisher is Weldon Owen Education in New Zealand. A photograph donated by CCF supporter Suzi Eszterhas was provided for a US\$100 donation, and the book was published in November 2007.

Vacation Work Publishers (an imprint of Crimson Publishing) is producing a new book about working holidays called "Hands On Holidays," which includes a chapter on Wildlife and Conservation that lists CCF's Volunteer Programme.

The book "Caring for Cheetahs" by former CCF volunteer and children's book writer, Rosanna Hansen, was published in March 2007 and is available through the publisher, Boyds Mills Press, at http://www.boydsmillspress.com/books/nonfiction/caring_for_cheetahs.html and Amazon.com. Rosanna will donate 50% of her royalties to CCF.

Jeff Szpirglas, a writer from Toronto, requested scientific information on the cheetah's speed and hunting habits for a children's picture book about things that take place in one minute. The book is to be published by Maple Tree Press, hopefully with a fall 2008 release date.

"Cry of the Cheetah," an audio book by CCF's supporter Bob Wallace, was published in June by Tate Publishing. The audio book includes credits to CCF and the author, who visited CCF in 2006, has offered to donate 10% of sales to CCF. <http://www.tatepublishing.com/bookstore/book.php?w=978-1-6024722-5-9>.

VI. STRUCTURAL ACTIVITIES

A. STAFFING NAMIBIA

Günther Roeber joined as a permanent CCF staff member in February to focus on farmers' development programs to expand the current training modules, raise funds for farmers' programs and conduct related public relations. Laura Linn, a previous CCF volunteer from Oregon, was employed as a permanent staff member. Anne-Marie Stewart from South Africa and Chris Gordon from England also joined as permanent members of CCF Namibia's staff in September this year. Current CCF staff includes:

Dr. Laurie Marker – Founder/CEO

Patricia Tricorache – Assistant Director, International Relations, Webmaster, Database

CCF Namibia:

Engelhardt /Awaseb – Assistant Farm Manager

Dr. Bruce Brewer – General Manager

Johan Britz – Farm Manager

Tanya Britz – CCF Bush Accountant

Marianne De Jonge – Research Assistant and Assistant Animal Curator

Monique Escurat – CCF Accountant

Ekeziel Fabiano – Research Assistant

Christopher Gordon – Research and Administrative Assistant

Elizabeth Lester – Veterinary Technician

Laura Linn – Administrative Assistant and Education Officer

Matti Nghikembua – Research Assistant

Gebhardt Nikanor – Education Officer

Philip Randle – Research Assistant and Cheetah Keeper

Günter Roeber – Agricultural Training and Development Officer

Bessie Simon – Janhelpman Supervisor

Max Simon – Maintenance Supervisor

Heike Stackman – Public Relations Officer and CCF Gala dinner organizer

Anne-Marie Stewart - Research and Administrative Assistant and Volunteer Coordinator

CCF Namibia also employs 22 Namibian farm workers and domestic workers. Due to theft we terminated three full time workers' contracts. In addition 17 part-time workers were employed to help with farm improvements.

CCF Kenya:

Mary Wykstra – Senior Research Assistant

Cosmas Wambua – Research Assistant

Lumumba Mutiso – Community Development Officer

Sarah Brooke – Research Assistant

CCF USA:

Kat Powers – Director of Operations

Lynda Gearheart – Director of Development

Paula Martin - Administrative Assistant

EWM – account firm

B. Volunteers

Volunteers are the backbone of CCF. CCF has been working with Earthwatch since 1996 with up to six volunteers participating monthly for a two-week period. Between January and June 2007, 25 Earthwatch volunteers assisted CCF, with another 36 Earthwatchers assisting in the second half of the year.

In addition to Earthwatch, a further 32 volunteers joined CCF between January and June 2007. In the second half of the year, 28 volunteers joined us at our Namibian premises. Among these were one Namibian volunteer, 42 international working-guest volunteers and 17 international student volunteers. CCF capitalises on professional specialities and interests of all volunteers, which adds to the volunteer's experience.

C. Namibian Facility Developments

1. Existing Structural Projects and New Projects

Over the last six months, CCF Namibia has primarily conducted maintenance work on existing structures. In addition to continued overall maintenance and improvements on roads, waterworks, fencing, and cheetah pens (mowing and firebreaks), the facility improvements were undertaken.

The Lightfoot Camp was updated with new roofs and tent bases. Boskop farm received a new side door, a double gate and the animal management facilities were upgraded. The Boskop housing was upgraded for staff and volunteers. Elandsvreugde saw the construction of a new cheetah pen and an extension of an existing cheetah pen.

Parts of the pipeline on Janhelpman farm were replaced and general fence maintenance was conducted. Equally, general maintenance was done on Cheetah View. New shade nets were installed at the kitchen and Lightfoot camp for more comfortable outdoor dining.

Furthermore, a water and electricity supply were installed and the house was painted.

Construction of the Babson House was completed in the first half of 2007 and final interior was completed at the end of 2007. This two-story, two bedroom guesthouse was dedicated to Art Babson, a member of the CCF U.S. Board of Directors, by his wife Susan Babson, a CCF U.S. Trustee, on the occasion of Art's 80th birthday in March. It is located between the Senior Staff House and the Education Centre. The two guest bedrooms, living room, deck and kitchenette are on the second floor with a view over the cheetah enclosures, the House Dam and the Waterberg Plateau. The ground floor contains the Applied Biosciences Genetics' Laboratory and workshop space and an auxiliary bedroom. The Babsons have donated the guesthouse to CCF in the hope that it will support CCF's eco-tourism efforts and a growing need for on-site accommodations for paying guests.

A big effort was made to clean the dumping sites at Boskop and Elandsvreugde farm. Staff, volunteers and children alike joined the group effort and helped recycle materials and clean the site. A team of volunteers implemented a new composting technique.

In addition, CCF's airstrip was cleaned and graded. Further roadwork repairs included removing encroaching bush and filling holes. Other roads were also mowed and scraped to allow the research team to carry out spoor tracking. Discussions with the Roads Authority resulted in a promise of considerable maintenance work beginning February 2008.

Hay was baled from the field and a new contractor was hired to make hay bales.

During the second half of 2007, CCF Namibia accomplished much maintenance on existing structures and roads in 2007. This included much needed road improvement and firebreak clearing.

A new borehole was drilled and put into service, supplying both Boskop and the pipeline to Elandsvreugde with water.

Elandsvreugde saw the construction of 12 hectares of new cheetah compounds and associated management pens and modifications to and extension of existing cheetah pens.

The rondavels were given new thatch roofs and a shade net was added to the Hotspot dining area. At farm staff housing, geysers replaced fire-burning donkeys in order to cut electricity demand and to allow access to warm water whenever needed rather than just when the generator is on. An old student house was upgraded for staff member accommodation. Ablution facilities were added to a temporary contractors tent-site near the worker's housing complex.

The Lightfoot Camp was updated with tent bases with roofs, and work was well underway on a new nature trail. A shade net was installed at the Lightfoot camp for more comfortable outdoor dining. Throughout the Research and Education centre several rainwater runoff channels and culvert installations were made and new wooden locator signs were installed. The display of old animal and tractor drawn implements were painted and the next step is to label each and provide a short history on them.

Water stays one of the biggest issues on CCF land. Not only is the lack of sufficient underground water a problem, but also the distribution network of water on all the farms. Several pipelines will have to be replaced during 2008 to prevent the current waste of water due to poor state of pipelines. Water usage in general is also a big cause for concern. As a conservation organization, it is the duty of CCF to take care of all the natural resources, of which water is probably the most important in Namibia. It should also be mentioned that before further expansions of buildings and infrastructure take place, a good evaluation of the current water supply must be done.

As House dam almost completely dried out, the front pond was deepened and the berm was reconfigured to provide better viewing from the new Babson House. A new borehole was drilled and put into service. Three exploratory boreholes were unsuccessful.

Parts of the pipeline on Janhelpman farm were replaced and general fence maintenance was conducted there and on adjoining farm Bellebenno. Equally, general fence and road maintenance was done on Cheetah View. Two exploratory boreholes on Cheetah View were unsuccessful.

The PV power plant at the Senior Staff House was upgraded to provide 24hour power to the Babson House. A new electric supply cable was drawn to the farm staff housing. At year-end the main gen-set had to be replaced due to excessive wear.

334 tons of hay were baled from the field and over N\$45,000 profit was realized.

2. The Rhino Reserve

Preparations for the 12,000-hectare “Rhino Reserve” continued and included grading the rhino fence line, and completion of the major cross-fence. The Ministry of Environment and Tourism has scheduled an inspection for January 2008.

3. The Vineyard

On livestock farmlands usually only one member of a family is working. Through diversifying farming operations, more opportunities for jobs will become available. The Namibian government policy document calls for activities that create employment opportunities in rural and urban areas. Economic stability then becomes a catalyst and a prime motivator for encouraging ongoing efforts to protect habitat and cheetahs and other predators in Namibia. Over the past two years, CCF began developing a small (1 ha) experimental vineyard on its farmstead that could provide additional part time jobs. This project was supported by WWF Sweden under its poverty reduction grant programme.

During the first half of this year, trellises have been installed, and the water line as far as the trench is completed. In the second half pruning was done and new cuttings were planted.

4. Automotives

All of CCF vehicles (seven cars) are approximately 7-8 years’ old and maintenance and repair has been frequent given the sheer amount of distances driven. A generous grant allowed for five new vehicles. By year-end, four were delivered: a new 10-passenger transporter (which will reduce the cost of large group transfers to and from the Windhoek airport), a rugged single cab Landcruiser for the Farm’s Manager, and two double cab bakkies (pick-up trucks) for general use. We will now be able to sell three of our older vehicles. These additions will help keep CCF operations running smoothly

5. IT & Computers

We have recently installed a fibre-optic cable running from the server computers to our main office. Generous donations of equipment by volunteers Andrew JW of the UK and Steve G. of the USA supported a major upgrade of the network. Volunteer Steve Alder of the UK installed the equipment. In addition, a Microsoft exchange network will allow a more efficient communication network, and we were fortunate to have an EW volunteer who was a former Microsoft Lead Programmer install and explain several useful network functions.

VII. PLANNED ACTIVITIES: JANUARY - DECEMBER 2008

A. NAMIBIA

1. Research

- Continue with tag-and-release programme and biomedical sampling and census research.
- Collaborate with University of Davis, Smithsonian, White Oak Conservation Center, and Namibian veterinarians on stress related disease research and collection of gastric biopsies.
- Collaborate with the Smithsonian Institution on reproductive physiology studies on male and female cheetahs.

- Develop a small genetics lab in cooperation with National Cancer Institute and Applied Biosystems – DNA (hair and scat), and begin data collection with scent sniffing dog
- Continue on cheetah relocation research - SPOTS Netherlands donated money specifically for collars
- GPS collar cheetahs in CCF's research area, to overlap with spoor count census.
- Carry out discussions with CCF collaborators in the USA regarding further research at CCF, particularly regarding the use of genetics to monitor cheetah abundance
- Publish peer-reviewed scientific papers on CCF's research.

2. Conservation

- Continue work with farmers on cheetah-related issues and reducing conflict situations involving cheetahs.
- Continue work with the Large Carnivore Management Association (LCMAN).
- Continue work with the Global Cheetah Forum. Continue work with the Conservation Association of Namibia (CANAM), the Waterberg Conservancy, and communal conservancies, in wildlife and habitat monitoring, eco-tourism activities, and promoting the concept of conservancies.
- Continue to expand the Livestock Guarding Dog Programme through breeding, placement and monitoring of dogs.
- Import a litter of puppies from the UK to bring in new bloodlines to Namibia.
- Work with USAID, and the Ministries of Agriculture, Environment and Tourism and Trade and Industry on bush encroachment-related research and bush industry development. Continue to develop a market and sales for logs, both nationally and internationally.
- Attend Agricultural & Industrial Shows
- Continue CCF Habitat restoration project:
 - Bush project - Sampling protocol of vegetation and bird/animal ecology
 - Bush clearing 500ha
 - Re-write FSC plans
 - Bushblok – Seek out opportunities to increase local sales
- Assist Algeria, Ethiopia, Iran and Kenya with developing cheetah programmes, as well as Botswana, Zimbabwe and South Africa.
- Continue ecology projects: Game/strip counts, Waterberg Conservancy annual waterhole count, spoor tracking route, Research/Education plots of grasses and bush, and Census – camera traps
- Design and manage a conservation and game reintroduction programme in the Eastern Communal lands if grant funds become available.

3. Education

- Continue to expand CCF's community development programme.
- Begin drafting a curriculum for submission to the University of Namibia and the Ministry of Education for a Conservation Biology course to be run at CCF that can be accredited.
- Continue to conduct educational assembly programmes in schools throughout Namibia, and distribute and evaluate student activity books.
- Work with the Ministry of Basic Education, Culture and Sports in the developing and adoption of predator conservation in the national school curriculum.
- Host the Miami University in their two-week long Learner Centered Education course in cooperation with the Cincinnati Zoo in August.
- Host university groups at Cheetah View in cooperation with University of Namibia.

- Continue with student internships in co-operation with Namibia's Polytechnic, Teacher Training colleges, the University of Namibia, and Oregon's Global Graduate Programme.
- Continue as a field station for Earthwatch and work with Earthwatch volunteers.
- Conduct farmer training
- Attend 2 conferences: Society for Conservation Biology (SCB) & World Environmental Education in South Africa – Matti, Fabiano Gebhardt, and Laurie
- Conduct more training for harvesters
- Conduct CCF Staff training – for workers, and workers children

4. Fundraising

- CCF executive director to travel to the US and UK in autumn for fundraising and lectures.
- Continue developing CCF USA, CCF UK as well as other foundations for fundraising.
- Continue assisting with the development of international fund raising arms in Japan and Holland.
- Organise CCF Namibia's annual fundraising dinner for July 2007.
- Continue to host national and international journalists.
- Develop/improve promotional and PR tools, such as CCF and How You Can Help brochures.
- Translate Education Centre panels into and French and develop a video for French, Italian, and Afrikaans visitors.
- Explore local sponsorship opportunities.
- Analyse income opportunities: Gift Shop, Visitor/Ed Centre, livestock, volunteers, film crews, national/international sponsorships.
- Develop Eco-Tourism at CCF through marketing: Bellebeno Safaris, Little Serengeti, and Cheetah Runs.

5. Structural Activities

- Facility Development:
 - Continue to improve the computer network
 - Upgrade the water pipelines at Janhelpman, Boskop and Cheetah View
 - Develop water supply at the vineyard if possible, and implement more cuttings
 - Continue maintenance on houses and infrastructure on Elandsvreugde, Boskop, Cheetah View and Janhelpman; fix Boskop house and roof.
 - Continue with Lightfoot Tented Camp development
 - Reduce transport expenses and obtain more public licenses to transport people
 - Build new 15 hectare cheetah pen at CCF centre, continue with development of rhino fence
 - Continue building the CCF nature trail

B. KENYA This needs to be reviewed

1. Research

- Collect data on livestock health and wildlife attitudes at the Kiu Livestock Dip sites in affiliation with local and international universities;
- Monitor conflicts in the Kiu area and develop mitigation and awareness programme;
- Evaluate information on cheetah sightings throughout Kenya using submissions from the "Great Cheetah Census" and "Snap-A-Cheetah" campaigns;
- Utilize biomedical sampling and measurement protocols in focusing efforts for cooperation with KWS for nation-wide use;

- Collaborate with KWS projects in the Masai Mara and other approved cheetah study areas;
- Monitor the case study cheetahs in the Machakos Wildlife Forum and link the monitoring program with Global Satellite to Mobile network technology through collaboration with PhD student (Chifuyu Bennett – permit approved November 2007);
- Advise in detailed cheetah census study in the Tsavo/Rukinga region (Cherie Schroff – pending permit approval by KWS and Kenya Ministry).

2. Education

- Use the national census data to conduct stakeholder workshops for identifying cheetah conservation focal areas in collaboration with KWS, EAWLS and other partners;
- Utilize trend information to compliment the National Strategic Plan for cheetahs in Kenya;
- Continue the development of education and awareness programs and materials for primary, secondary, local adult and tourism sectors;
- Continue development of local and international student intern programmes by identifying study sites and focus projects with KWS and other stakeholders;
- Participate in the KWS 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 CCF and the Global Cheetah Master Plan.

3. Community Development

- Continue to Develop the Kiu Livestock Dip Project as a sustainable business supporting increased livestock productivity within the community.
- Develop Craft Sales Programme to create a business which offers an outlet to community based crafts relating wildlife and the environment.

VIII. APPENDIX: MEDIA

A. PRESS RELEASES

- **Young Scientist from the Cheetah Conservation Fund (CCF) Namibia Visits the U.S.** – Regarding Ezekiel Fabiano’s U.S. tour. *Distributed to Namibian media. 7 February 2007*
- **Agra and CCF commit to strengthening the capacity of farm workers** -- The Cheetah Conservation Fund (CCF) and its project partner Agra, will present two practical farming training courses tailored to the specific needs of farm workers from 5-9 March and 16-20 April 2007. *Distributed to southern African media. 20 February 2007*
- **Otjiwarongo Children and Fashion Designer Jordan Combine their Artistic Talents to Help Raise Funds for Cheetah Conservation Fund.** *Distributed to U.S. and Namibian media. 8 March 2007*
- **Cheetah Conservation Fund Announces the Expansion of “Downloads for Dollars”** – Regarding downloadable music from the Internet with a portion of the profits donated to CCF. *Distributed via online newswires by donor. 8 March 2007*
- **Agriculture and Conservation: A Winning Combination.** Farm workers and farmers from north and south of the veterinary cordon fence joined forces last week to improve their farming skills and knowledge during the Agra/CCF Practical Farming Course presented by the Cheetah Conservation Fund. *Distributed to southern African media. 14 May 2007*
- **CCF’s 8th Annual Gala Dinner** is being held at the Windhoek Country Club on Saturday, July 28th 2007. *Distributed to southern African media. 19 July 2007*
- **Keeping Cheetahs Wild and Free: CCF’s 8th Annual Gala Fundraising Dinner.** For the 8th year, the Cheetah Conservation Fund (CCF) celebrated the speed and elegance of the cheetah at their Gala Dinner at the Windhoek Country Club on the 28th of July. *Distributed to Namibian Media. 16 August 2007.*
- **Cheetah Conservation Fund Receives Award from Disney Wildlife Conservation Fund.** *Distributed by Disney to U.S. Media on 21 August 2007.*
- **Launch of the CCF-Agribank Financial Farm Management Training Course.** The Cheetah Conservation Fund (CCF) recently joined forces with Agribank to fulfil a critical training need of emerging commercial farmers, namely that of financial farm management. *Distributed to Namibian Media. 24 August 2007.*
- **CCF Announces Breakthrough in Cheetah Reproductive Research.** The first ever *in vitro* cheetah embryos that have developed to the blastocyst stage have been produced at the Cheetah Conservation Fund (CCF) in collaboration with the Smithsonian Institution and the University of California, Davis, USA. *Distributed to worldwide media. 9 September 2007*
- **Laurie Marker Nominated for the Indianapolis Prize.** *Distributed via online newswires by donor. 27 September 2007*
- **Cheetah Chewbaaka has house call by local Veterinarian.** *Distributed to Namibian media. 17 November 2007.*
- **Kangal Anatolian Shepherd’s meet new owners.** *Distributed to Namibian media. 17 November 2007.*
- **Laurie Marker Named Finalist for the 2008 Indianapolis Prize.** *Distributed via online newswires by donor. 4 December 2007*

B. VISITING MEDIA

- WWF Sweden sent a film crew over in January to do a show on conservation work at CCF. The production company **Christer Åkerlund** conducted the filming with Presenter Linda Isaksson, and other film team members Allan Carlson and Jörgen Lindskog.
- Gary Strieker, Al Jazeera English – “Assignment Earth: Vanishing Cheetahs.” 21-minute documentary filmed on site at CCF Namibia. *Aired 4 April 2007.*

C. INQUIRIES AND INTERVIEWS

- Mike Hally, Producer, **Pennine Productions**. Frauke (Jensen) Röschlau was interviewed as part of a **Radio 4** programme focusing on non-scientist volunteers in scientific research (Okatumba Wildlife Research and Biosphere Expeditions) and the situation of cheetahs on commercial farmland.
- Troy Hartpence, **Wealth TV (USA)**: Request for images for the cable show “Out of This World Adventures” dedicated to volunteering and Earthwatch, with a segment on CCF. *Aired in January 2007.*
- Anders Priemé, **Science Illustrated (Denmark)** – Request for information for article on cheetah conservation in southern Africa regarding CCF’s work to develop a more diversified gene pool for Namibian cheetahs. The article *Sprinter Ingehaald* was published on Wetenskap in Beeld (Science in Pictures) in Holland – March 2007. *26 January 2007.*
- Gregor McClenaghan, **Emirates Today (Dubai, UAE)**: “Helping the Cheetah Run from Extinction.” Dean Polley, Dubai-based photographer specializing in wildlife images, nominated Dr. Laurie Marker as "Unsung Hero" of the week in this daily newspaper. The article features an in-depth interview regarding Laurie's 30-years of work on behalf of the wild cheetah. The article includes information about the world-class cheetah breeding program run since 1995 in the UAE by Sheikh Butti bin Maktoum bin Juma Al Maktoum. *5 February 2007.*
- Robert Posner, Creative Director, **Today's Family Platinum Productions** – Initial approach for possible inclusion of CCF in segment “Getting Involved” as part of the TV show “Touching Hearts & Changing Lives” on national TV series "Today's Family.” *5 February 2007*
- Ginger Mauney, **Conservation and the Environment Magazine 2007/8 (Namibia)**: Request for CCF articles for the 2007/2008 issue. Submitted article: “Field Testing and Calibrating Census Techniques for Namibian Cheetahs.” Also requested story on Otjiwarongo in celebration of the Etosha and the Namib Naukluft Park. *Submitted 12 February 2007.*
- **2007 TUSK Talk Magazine.** “North African Cheetah - Algeria” article by Laurie Marker. *Feb. 14, 2007*
- Matthew Wilkinson, **Safaritalk.com** – E-mail interview about CCF, due for publication in July 2007, for African travel and safari forum which emphasizes wildlife / habitat conservation and cultural issues. *4 March 2007.*
- Sarah Hamilton - **BBC Wildlife Magazine (UK)**. Request to CCF UK for contribution for a Q&A page in an issue about cheetahs and their non-retractable claws. *7 March 2007.*
- Stacy Fiorentinos, **Classic Escapes**: Request for images for a 6-page travel brochure on Namibia. *9 Mar 07*
- Kate Hofman, **Ranger Rick Magazine (USA)**: Awww-some Cheetahs! Article edited by CCF in November 2006 and featuring photos by CCF’s supporter Suzi Eszterhas, was published in April 2007.

- Jasmina Trifoni, **Glamour Magazine (Italian edition - Conde Nast)**: Request for collaboration and images for an article about "travelling with specialists" listing CCF Namibia as a destination. *12 April 2007.*
- **Science magazine publisher in Scandinavia** requested images of the Anatolian Shepherd dog at work protecting livestock with the flock in the background. *3 May 07*
- Derek Mooney, **RTE Radio (Ireland)** 13-minute radio interview with Dr. Marker. Broadcast on *4 May 2007, 3 - 5 pm.*
- Angela De Groot, free-lance writer, requested information for article on cheetahs for **Highlights Magazine for Children** or **Cricket Magazine (USA)**. *6 May 2007.* Article submitted but not published.
- Tom Stephens, Development Researcher, **Aqua Vita Films** (Independent natural history production company based in the UK). Initial approach re 6-part series idea about women who are pioneers, champions of conservation. Interviewees include Stella Marsden (Chimpanzee Rehabilitation Project) and Virginia McKenna (Born Free). Prospects include Dr. Laurie Marker and Dame Jane Goodall. Filmed and interviewed Dr. Marker in Oxford in October 2007. Intended to air on the BBC. *14 May 2007.*
- Guy Gugliotta, Writer, **Smithsonian Magazine (USA)**. Writing a profile of Laurie Marker for Smithsonian. Visited CCF Namibia in June and interviewed Dr. Marker. *29 May 2007.*
- Daphne Dek, reporter, **Dutch Wildlife Magazine** (The Netherlands). E-mail interview for article featuring CCF's work. *January-February 2008 issue.*
- Rieth van Schalkwyk, Group Editor, Venture Publications - **Travel News Namibia** (often report on CCF issues in the Conservation News pages). Initial approach for articles to raise awareness on the cheetah's plight, and coverage on Ezekiel Fabiano's Master's graduation. This tourism magazine is distributed to 76 countries worldwide. *June 20, 2007*
- Natalie Dunmore; Researcher, **Tigress Productions (UK)**. Working on a 12-part series for five and Cineflix, a worldwide distribution company. Looking to film one of the programs on cheetahs in Namibia. Also interested in current wild cheetah population, and the possibility of filming them in the wild. *3 July 2007.*
- Lincoln Armstrong, Writer. **Hubpages.com**. Request for review and edits for article "The Cheetah: Fastest Land Animal in the World." *18 July 2007.*
- Sylvia Held, Marketing Executive, **Sense of Africa (Namibia)**. Request to host a local Swedish Television Team in Namibia for Sense of Africa's Swedish Agent starting to actively promote Namibia as a holiday destination. *30 August 2007.* Filming did not take place.
- Matt Barrett, producer, **BBC's Darwin Documentary (UK)**. Telephone interview with Dr. Marker and request for photos regarding the cheetah's lack of genetic diversity for a three-part series on Charles Darwin due to be transmitted on BBC 2 as part of the 2009 Darwin celebrations (200 years since his birth). *6 September 2007.*
- Sophie Ellis, Freelance Researcher Chameleon Television (UK). Developing a TV series entitled **Nature's Defenders**, possibly for the National Geographic Channel. Chameleon is an independent television company of 30 years standing producing a broad range of programming for the BBC, ITV, Channel 4, SKY, Discovery, WGBH and National Geographic. *7 September 2007.*

- Sheree Bega, Reporter, **Saturday Star (Johannesburg, South Africa)**. E-mail interview with CCF and Smithsonian Institution regarding Cheetah Reproductive Research announcement in September. *11 September 2007*. Published on 15 September 2007, Main Edition.
- Ahmet Toprak, Program Director, **KKUP is in Santa Clara CA and KUSF is in San Francisco CA (USA)**: Telephone interview with Dr. Laurie Marker for the Turkish Radio Hour, with emphasis on CCF's Livestock Guarding Dog Programme. *22 September 2007*. Aired on 1 October 2007.
- Erez Erlichman, Nature & Animals Correspondent, **ynet.co.il (Israel)**. Initial contact. Working on a series of articles about the conservation efforts of endangered animals around the world, and interested in including CCF activities. *22 September 2007*.
- Robin Terry, Editor, **National Geographic Kids Magazine (USA)**. Request for information regarding cheetah's biology for general wildlife article to be published on April 2008 issue. *29 October 2007*.
- Mr. Protasius Ndauendapo, Founder & Managing Director, **Promax Communication (Pty) Ltd**: Article about the Cheetah Conservation Fund for Otjiwarongo Centenary special publication - when and why CCF was founded, aims and objectives, vision, mission and core values, why Otjiwarongo was chosen as the location, partnerships with Otjiwarongo municipality. The company, Promax Communication, was exclusively appointed by the Otjiwarongo Municipality to market and promote the town's centenary celebration.

D. OTHER CCF AND/OR CHEETAH-RELATED COVERAGE

Cheetahs to Benefit from Sailboat Racing

SpinSheet (Sailing Magazine from the Chesapeake Bay Area, USA) - January 2007

Announcing a sailing event to benefit CCF, organized by CCF's friend and supporter John Ritter. The event is scheduled to take place in July 2007

Saving species with genetics comes to UH

Star Bulletin – Hawaii, USA - 18 January 2007

A unique course applying genetics to solve problems affecting humans and other species is being taught at Coconut Island in Kaneohe Bay to 28 young scientists from 16 countries... It is sponsored by the American Genetics Association and directed by Stephen O'Brien, chief of the Laboratory of Genomic Diversity and the Section of Genomics at the National Institutes of Health. He is the leading authority on conservation genetics of big cats -- tigers, lions, the Florida panther and cheetah.

Conservationists move to curb illicit wildlife trade

Africa News - Haarlem, Noord - Holland, Netherlands - 12 February 2007

PANA. African wildlife conservationists and the US have formed an intergovernmental panel to combat illegal trade in wildlife mostly stolen from African national parks, estimated at US\$10 billion annually.

Canada Joins Coalition Against Wildlife Trafficking

US Department of State (press release) - Washington, DC, USA - 12 April 2007

These include the World Conservation Union, the American Forest and Paper Association, the Cheetah Conservation Fund and Conservation International.

Turkish Dogs Save Cheetahs in Namibia

Ina Eggink, De Telegraaf (Dutch National Newspaper) - 12 May 2007

Covering Laurie Marker's visit to Amersfoort Zoo and CCF's Livestock Guarding Dog Programme.

Namibia: Nature Club in Environmental Awareness Campaign

New Era – Namibia - 17 April 2007

The group (led by former CCF volunteer Dennis Muesee) has already been to Etosha Environmental Education Centre and to the Cheetah Conservation Fund. But the school, patronised mostly by children whose parents were resettled from Botswana, has problems in securing transport and need financial support especially on its educational trips.

Cheetahs of Namibia

Dutch Wildlife Magazine – May 2007

Article covering a visit to CCF Namibia by Simone Eckhardt, head of Stichting SPOTS, the CCF's fundraising arm in the Netherlands.

Doing it for the planet

Sunday Times.au - Perth, WA, Australia – 17 May 2007

In Namibia, the Earthwatch Cheetahs Expedition has volunteers feeding and caring for captive cheetahs at the Cheetah Conservation Fund. ...

Cheetah on the fast track to extinction

Rupi Mangat, The East African Magazine (Kenya) - 28 May 2007

Main feature article covering CCF's work in Kenya, including field reporting with Mary Wykstra and Lumumba Mutiso.

Journey to Namibia – Cheetah Capital

Calistoga Tribune – California, USA - 25 May 2007

Article by Staff Writer Noah Hampton-Asmus regarding his stay at CCF Namibia as an Earthwatch Volunteer.

Wise philosophy: 'A curious mind never stops'

Attleboro Sun Chronicle - Attleboro, MA, USA – May 27, 2007

Interview with Jillian Wise, former CCF Volunteer (former CCF volunteer)

Electricity From the Bush

New Era – Namibia – 11 June 2007

A feasibility study to determine the costs and benefits of generating electricity from invader bush is currently under way. Researchers, with the help of Cheetah Conservation Fund Bush, which manufactures bush blocks from invader bush, are now collecting final data around the Otjiwarongo area on harvesting methods.

African Adventure

The St. Augustine Record – Florida, USA – 26 August 2007.

Article by Terran Rosenberg, who visited CCF with an Earth Expeditions group in August 2007.

Vacation Trip Helps Save Cheetahs

The Independent – Pleasanton, California, USA – 11 October 2007.

Article about Vickie Tan, an Earthwatch volunteer who visited CCF Namibia.

TODAY'S NEWS: No Cheating in School, But Cheetahs Are Okay

Washington Post - USA – 30 October 2007

Kuzo, a 7-year-old male cheetah from the Columbus Zoo in Ohio, visited the school with **Laurie Marker**, co-founder of the Cheetah Conservation Fund, ...

On the Spot

Roll Call – Capitol Hill, USA – 25 October 2007

Front-page photo of Kuzo, a cheetah from Columbus Zoo, during Dr. Marker's meet-and-greet at Capitol Hill to raise awareness of the Great Cats and Rare Canids Act, hosted by the International Conservation Caucus Foundation (ICCF).

Bring on the cheetahs to zoo

Lake Oswego Review - Lake Oswego, OR, USA – 4 October 2007

Vecchio has been friends with the CCF's founder, **Laurie Marker** for 28 years and has supported the program consistently, long before the possibility of ... Oregon Zoo's new Predators of the Serengeti exhibit opens, which will feature cheetahs, lions, wild dogs and other rare species of animals, most of which are native to Africa.

Foreign experts want to help TT zoo

Trinidad News - Port of Spain, Trinidad and Tobago – 30 September 2007

Attendees also included affiliates from institutions such as the ZSTT and the **Cheetah Conservation Fund** of Kenya and many other zoos and aquariums around ...

World animal day: Patch and Scout

By Rob Driessen – 3 October 2007

Laurie Marker, the head of CCF visits the palace two weeks later to check up on Scout. By now he has been adopted by the American embassy. A new pen is being built and he is getting medical care and good food. ...

COMING UP

Toledo Blade - Toledo, OH, USA – 24 September 2007

Mary Wykstra, a representative from **Cheetah Conservation Fund** in Kenya, will speak at the Toledo Zoo at 7:30 pm tomorrow in the zoo's indoor theater. ...

Binder Park Zoo to host 'Cheetahs in Conflict'

Battle Creek Enquirer - Battle Creek, MI, USA – 18 September 2007

Binder Park Zoo is proud to welcome Mary Wykstra, Kenya Representative for the **Cheetah Conservation Fund** (CCF), for an evening reception and lecture ...