

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

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Project Executive

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I. INTRODUCTION

The Cheetah Conservation Fund (CCF), founded in 1990 has as its mission ‘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's base of operations is in Namibia, which has the largest and one of the few sustainable populations of free-ranging cheetah in the world. The cheetah has a special problem compared to the other big cats, such as lion and leopard, which will steal their kill and kill young cheetah. As a result of conflict with these and other predators, the cheetah is maintained at low densities in protected areas but is able to maintain higher densities on farmland due to the absence of other predators. This results in over 90% of cheetah in Namibia living on commercial farmlands where they come into conflict with human and livestock interests. Approximately 70% of the total cheetah prey species (such as oryx and kudu) occur wild on these commercial farmlands.

Therefore, the cheetah's survival depends on a total ecological system of farmland management, prey species management, and habitat stability. CCF’s 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 accommodating farmers’ land use needs. CCF carries out scientific research programmes in areas such as cheetah population biology, cheetah ecology, cheetah health and reproduction and human impacts on the cheetah. The results of this research form a current database.

CCF researchers develop, test and promote alternative land management practices such as; non-lethal predator controls, relocation of problem cheetahs, and eco-tourism. Additionally, CCF conducts both Namibian and International Education Programmes, to raise awareness of the cheetah’s endangered status. These illustrate ways in which the species can be protected, and encourages worldwide support.

These successes have created an increased demand for all facets of CCF’s activities. New issues and data analysis necessitates further scientific research and increased education programmes. CCF is a dynamic organisation and, as such, is prepared to meet new challenges as they arise.

II. ORGANISATIONAL STRUCTURE

In 1991, CCF became a Namibian Voluntary Trust with a Namibian Board of Directors comprising of leaders in the local community, business, agriculture and government. Additionally, there is an International Science Advisory Board that assists in planning and advising on research projects. The Director is assisted in the management and operations of CCF by a small core staff, short-term volunteers and students.

III. ACTIVITIES AND METHODS

CCF’s International Research and Education Centre is the base for all CCF’s activities. The Centre is located on three farms Elandsvreugde, Osonanga and Cheetah View, totalling 15,300ha. The farm base is in prime cheetah habitat and a wildlife friendly area, with neighbouring farmers who believe in conservation ethics. This ensures a large prey population, which is important for the cheetah population. CCF is an active member of the Waterberg Conservancy, which encompasses over 200,000 ha of private farmland surrounding the Waterberg Plateau Park - a national reserve dedicated to rare and endangered species. The Conservancy's farmers co-operatively manage the Conservancy’s wildlife for long-term sustainability. This in turn provides habitat and prey base for the cheetah.

CCF is currently involved in the following areas of research, conservation and education:

1. Conducting field research to learn more about the biology and overall health of Namibia's free-ranging cheetah population and gaining information about the animals' movements through the farmlands.
2. Identifying and conducting research on key components in farmland ecosystems, including habitat and prey base that are necessary to sustain healthy cheetah populations.
3. Evaluating current livestock practices and their impact on cheetah and addressing conflicts between farmers and predators in order to develop a conservation and management strategy that benefits both humans and cheetah.
4. Researching, evaluating and implementing various non-lethal livestock management techniques that will assist farmers in predator control, thus reducing conflicts and the indiscriminate removal of cheetahs.
5. Conducting conservation education programmes and teacher training in Namibian schools, increasing awareness about cheetah and the predator's role in the ecosystem and environment. Encouraging students of all ages to participate in cheetah conservation efforts.
6. Expanding CCF's Research and Education Centre to assist in accomplishing CCF's mission.
7. Adapting model programmes developed in Namibia for use in other countries by co-ordinating work with wildlife officials and other non-government organisations around the world.
8. Developing an international network that financially aids CCF with accomplishing its goals.
9. Creating and implementing eco-tourism programmes that financially assist CCF to achieve its objectives.
10. Bringing global awareness to the plight of the cheetah by developing links to other organisations and individuals.

IV. PROGRESS DURING REPORTING PERIOD: January – December 2000

A. Developments at CCF's Research and Education Centre

1. CCF Renovation Project

CCF's two-year rebuilding effort was completed under the direction of CCF's General Manager Dr. Bruce Brewer. Otjiwarongo firm, Stechman Construction, and Cape Thatch Namibia have completed the new Hass Family Cheetah Research Centre and the Carl and Cathryn Hilker Education Centre. The main office and clinic and laboratory have now moved to the Hass Family Cheetah Research Centre. This centre also houses the Col. "Jake" Jacoby Memorial Library.

In March 2000, Manda and Graeme Wilson from Namibia joined Mary Wykstra-Ross and Kayla Grams, CCF volunteers from the USA, to put together the exhibits and displays in the Carl and Cathryn Hilker Education Centre. Johann Berger, a Zimbabwean artist, was invited to CCF to design, develop and produce various exhibits around the CCF complex. Elena Chelysheva from Moscow Zoo, Russia, volunteered her artistic skills and produced a number of pastel drawings for various panels, 40 paintings of cats for the phylogenetic tree and a painting of Namibia's predators. Graphic assistance and organisations used included, Winston Retief, Retief Sales Promotion, Windhoek, which fabricated the panel structure and lighting and Mark Rosemann, Omnigraphics, Windhoek, printed all 111 panels and prints for the Centre.

On the 22nd July 2000, His Excellency Dr. Sam Nujoma, Namibia's President and CCF's International Patron, officially dedicated our new Hass Family Cheetah Research Centre and the Cathryn and Carl Hilker Education Centre. Many of CCF's friends, both local and international, as well as officials and dignitaries, arrived at Elandsvregde to celebrate the opening of the Centre. Namibia's Permanent Secretary of the Ministry of Environment and Tourism, Mr. Tangeni Erkana, served as Master of Ceremonies, Otjizondupa's Honourable Governor, Grace Uushona and US Ambassador, Jeffrey

Bader, delivered dedication speeches. The dedication of CCF's Research and Education Centre also marks CCF's 10-year anniversary of active cheetah conservation in Namibia

The Research Centre houses a veterinary clinic, laboratory and main office. The Visitor's Centre includes a large meeting room and the Education Centre provides students and visitors the opportunity to learn more about the behaviour and biology of the cheetah and the Namibian ecosystem. The graphics in the Education Centre bring the visitor through the history of the cheetah from pre-history to current time and show the diminished range.

One hundred and eleven panels and prints have combined graphics, photographs, artwork, poems, stories, text, video and interactives to provide CCF visitors and school groups with information about the cheetah and its habitat. A phylogenetic tree shows where the cheetah, different from the other 36 cat species, first branched from its early relatives 4 million years ago. The visitor is taken through the life cycle of the cheetah from birth to adulthood and the difficulties involved in its struggle for survival. Exhibits and video present how the cheetah is adapted for high-speed sprinting and specialised hunting techniques. A life size playtree has been built and a trap cage is placed underneath. Graphics explain how farmers live trap cheetahs under these trees.

Included within the grounds is an outdoor "predator preyground" that is a learning area for children of all ages and in the centre of the courtyard includes a beautiful wire frame cheetah sculpture donated by Amy Malouf, a previous conservation biology student. Landscaping in and around the Centre includes gardens, a public braai area and outdoor picnic grounds, a parking area and the building of new cheetah pens and perimeter fences.

The renovation project was sponsored by two grants from the Haas Family Philanthropic Fund in the United States. The matching grant was supported by CCF donors throughout the world and includes major grants from Namibian donors including the NAMDEB Social Fund, First National Bank and several private donors. The development of the Education Centre graphics was sponsored by a grant from the American Zoo & Aquarium Association's Conservation Endowment Fund, Disney's Conservation Fund and continuing support from the Cincinnati Zoo's Angel Fund. CCF's Education Centre is open daily from 9am to 5pm.

Since the opening, further developments have been completed including hanging the original artwork from CCF's publication entitled "the Orphan Calf and the Magical Cheetah" in the Visitor Centre. This "cheetah art gallery" will continue to expand with works of art added from visiting education groups. Several supporting pamphlets and brochures have been designed and mock-ups made. These items will form the first tentative steps towards presenting a truly professional product and thus a step towards achieving CCF's vision of an internationally recognised Centre for educational excellence.

2. CCF Research Farm – Cheetah View

This farm is used as a base for a US University accredited conservation biology field school, where students carry out various ecological research projects on the farm. In addition, this farm supports herds of cattle, goats and sheep as well as a livestock-guarding dog.

Few renovations have been made to this farm due to the time commitment needed in the major renovation project at CCF's main Centre. The renovations include, a newly rebuilt cattle kraal to house newly born calves. In addition, a perimeter fence has been improved to keep livestock out of the yard. The water supply remains a major concern at Cheetah View with many problems being experienced, with boreholes and pumps. The generator providing electricity has also had its problems. An electrician has assisted with some of these problems and the generator has recently been repaired.

B. Research Activities

1. Population Biology

The Fund conducts field research to gather data on distribution, behaviour, biology, demographics and the overall health of the cheetah population. Farmers participate in CCF's research through live capture of cheetah on their farms and assist in collecting biological samples and measurements, ear tagging, radio collaring, and release and report other cheetah/livestock interactions. CCF's director, Laurie Marker, and research assistant, Bonnie Schumann, work directly with farmers and cheetah issues. Other CCF staff and volunteers assist.

Between 1 January and 30 December 2000, CCF worked on 74 cheetahs, some of which had been worked on before, as they were either recaptured or had medical problems that needed attention. Many of the cheetahs handled during this reporting period were orphaned young cubs.

Of the cheetahs examined during the year, 22 (15M.7F) were released back into the wild, of which four (2M.2F) were newly radio-collared; a female with three (2M.1F) three month old cubs, an adult female caught at a play tree in a game camp, a coalition of two males of which a radio-collar was placed on one of the males, and an adult male. In addition a recaptured male was given a replacement radio collar. This dominant male cheetah was re-captured for the fourth time at the same play tree in the same game camp and released again. He was subsequently shot by the farmer. Two other cheetahs were also recaptured and released immediately without a medical workup. In addition, three (1M.2F) cheetahs caught in game farms at the end of December were in short-term holding at CCF at the end of the year. These included a male cheetah requiring antibiotic treatment for an infected foot injury, and two female cheetahs pending blood results and completion of the year-end holiday season (all have subsequently been released to the wild as of the 5 of January 2001).

Necropsies were performed on eleven (9M.2F) cheetahs. Of these, one male was shot for livestock predation, and during the necropsy it was discovered that the cheetah had a chronic injury to its shoulder joint, probably resulting in its livestock predation; three (1M.2F) cheetahs were trophy shot; two captive male cheetahs died from accidental poisoning; three males were road kills (one was tagged by CCF in May 1999); one captive male cheetah died in holding at CCF – the cause of death was not determined; and a male cheetah radio-collared by CCF in February 1999 was found dead on a neighbouring farm - the cause of death was not established. In addition we collected the an old carcass (too old to necropsy) of a female cheetah that broke her neck in a trap cage and also received the remains of a male cheetah shot for suspected livestock predation (no necropsy was done).

Eight (3M.5F) cheetah cubs were collected by CCF staff varying in age from three to five months (estimated date of birth - June/July) and have since been in holding at CCF. Of these, two females were orphaned when their dam was seen to be injured and shot, a third cub was fatally injured during their capture. Three (2M.1F) cubs were orphaned when their dam was shot in a game camp, a fourth cub escaped capture. Two (1M.1F) cubs were orphaned when the female was shot for kudu predation on a cattle farm (not game fenced), an additional cub from this litter was killed. Both these cubs required veterinary attention for deep lacerations on their faces sustained in the trap cage. Lastly, CCF collected a single orphaned female cub with a badly broken front leg that had been held for a month in a trap cage. The cub's broken leg was pinned by a local veterinarian, and the "elephant foot" callus that formed around the break was removed. A year-old male cheetah is currently in holding following an unsuccessful attempt by a game farmer to catch a family group, he is too young to be released alone.

Electro-ejaculation was carried out on six (5 captive, 1 tagged and released) male cheetahs. A veterinarian for CCF also collected blood on a four captive cheetahs at two guest lodges. In addition, two captive cheetahs (1M.1F) were treated for tooth-related abscesses, and one had a bone removed from its mouth. A trapped male cheetah was taken to the dentist to cap a broken canine tooth prior to

release. This proved successful and CCF was written up in the 3-M in-house magazine for use of their dental products on this cat. In addition, 10 captive cheetahs (7M,3F) were re-examined for their annual veterinary checks and vaccinations: five in holding at CCF and five on loan to a tourist lodge.

At the end of this reporting period CCF is currently holding 22 cheetahs and includes: three long-term resident cheetahs (Chewbaaka, Leia, and Old Lady); two young females and one young male held at CCF for over a two years and one male held at CCF for over six months, all that came to CCF as orphans (all four have been identified for export to the US early in 2001); three non-releasable adult male cheetahs that have been in captivity since they were infants; eight cubs around six to seven months of age (six of these are to be exported to the US in early 2001); and a male and two females scheduled for release the beginning of January 2001. An over-view paper on the capture and handling of cheetahs by CCF is in its final stages and nearly ready for publication. This paper is the basis of CCF Director's PhD thesis assisted by research assistant Amy Dickman. These studies are ongoing.

2. Health and Reproduction

CCF collects biological samples to assist in evaluating the health of the cheetah population. A full set of measurements, blood samples and skin biopsies are taken on all animals as well as semen samples from male animals. The information gathered from the sperm is used to monitor the genetics, virology and morphology of the species and to contribute to a genome resource bank. CCF collaborates with other researchers and institutions from the United States, Europe, Namibia and South Africa. This collaboration has allowed experts in genetics, reproduction, veterinary medicine, pathology and conservation to work with CCF thus expanding the use of this valuable data. To date, over 430 cheetah have been sampled, several multiple times, and an extensive database has been developed, with new data continually being added. During the year samples on 74 cheetahs were added to this database.

During August, Dr. Budhan Pukazhenth, a Gamete Biologist from the National Zoological Park's Conservation & Research Centre in Front Royal, Virginia (USA), visited CCF for two weeks to further studies on cheetah sperm cryopreservation and to provide additional training to CCF's staff. During this time, sperm was collected from six male cheetahs held at CCF. The research investigated the beneficial effects of various concentrations of anti-freeze chemicals on cheetah sperm. Preliminary results showed that cheetah sperm withstands a wide range of concentrations.

CCF research collaborator and Scientific Board member, Dr. Linda Munson from University of California at Davis and Laurie Marker, CCF's Director, are working on several papers presently including the health status of the dead cheetahs CCF has necropsied over the years. Having access to dead cheetahs that have been trophy hunted, hit by cars or shot by farmers enables a thorough examination and collection of all internal organs and tissues, facilitating certain studies on overall health and diseases that would otherwise not be possible. A full biomedical collection of two sets of samples, including vital organs, lymph nodes, bone, muscle, skin and reproductive tract, was performed. All samples are meticulously stored and serve as a reference database for future studies. In addition, the skeletons are cleaned, labelled and stored for future studies. In addition, CCF research collaborator, Dr. Cathy Adamson, a virologist from the United Kingdom is working with CCF's Director and Dr. Munson on the analysis of cheetah health data.

Working with collaborators from Dr. Stephen O'Brien's genetics lab at the US National Cancer Institute, genetic analysis has begun on the samples collected by CCF over the past eight years. Preliminary data will be available later in 2001.

3. Cheetah Ecology

During the year, 14 (6M.8F) cheetahs were radio-tracked. At the end of 2000 nine (3M.6F) cheetah were still being tracked in CCF's research area encompassing approximately 15,000 km² in the Waterberg-Otjiwarongo region of the north-central part of Namibia. CCF's radio telemetry research this past year has focused on female cheetahs. Four of the female cheetahs being tracked have cubs and a fifth one is suspected of having just had cubs, judging by her movement pattern. The sixth female still had three youngsters in their second year with her the last time she was seen.

During the past six years of this research, over 50 cheetahs have been collared. These radio-collared animals have actually provided information on more than just the animal collared, as some of the females have cubs and most of the males are part of coalitions (male groups). Radio-collared animals are tracked weekly by fixed-wing aeroplane. Radio-telemetry is a powerful tool and is important to CCF's work with the farming community. The data collected from the tracking is used to show the farmers the actual movements of the cheetah through their land. The information collected also illustrates where cheetahs are in relation to the farmer's calving herds, indicating areas on farms that attract cheetahs and the duration of time spent in an area. Furthermore, it demonstrates to farmers that cheetahs range over large distances and that an individual animal may be seen on many farms.

CCF's radio-tracking programme continues to shed new light on home-range sizes and cheetah behaviour. Each collar brings new information. The radio-tracking data are currently being analysed using the GIS programme ArcView and forms the basis of CCF Director's PhD. dissertation.

4. Predator Ecology (Leopard, Caracal and Serval)

CCF has opportunistically monitored several other predator species including leopard, caracal and recently serval, and in the past brown hyaena. During this reporting period, a necropsy was performed on a trophy shot male leopard, and two male caracals were tagged and released - one that was caught in a neighbouring game farm and the other on CCF's farm Elandsvreugde. A male serval was tagged and released that was also caught on the neighbouring game farm. During the past year, three caracals have been monitored using radio-telemetry. After over a year-and-a-half of monitoring, the radio-collar on one caracal stopped transmitting. The second caracal is still being tracked, while the third one died from an unknown cause and the collar was retrieved.

A leopard currently in holding at CCF has undergone a first-ever procedure in Namibian dentistry work. Dr. Dennis Profitt, Otjiwarongo dentist, assisted by veterinarian Dr. Mark Jago capped the leopard's broken upper canine tooth. With the help of Fajo von Luttwiz, a dental technician, a mixture of dental metal alloys was used to provide the strongest substance for the new tooth, resulting in its silver appearance. But, due to the pressure placed on the tooth during normal eating after a couple months the cap came loose and did break off. This dental research on leopard was an important step in learning and deciding what procedure to use for other leopards with broken canines that are destined for return to the wild.

5. Ecosystem Research

Assessment of the Namibian farmland's ecosystem for the long-term habitat viability for the cheetah is a part of CCF's on-going research. The farmlands support a rich prey base, as 70% of the country's game inhabits these areas. CCF assesses the farmland ecosystem and monitors the wildlife prey base available to predators in CCF's primary research area. Several techniques are used for these assessments and include research and monitoring.

To assist in developing a model for the Waterberg Conservancy's game monitoring, CCF began an ongoing wildlife-monitoring programme on its farm, designed to understand game densities,

movement, demographics, and habitat utilisation. The monitoring involves conducting visual road counts of game at regularly measured points throughout the farm at various times of the day, tracking and counting spoor, categorising vegetation types, densities and distribution and soil analysis. EarthWatch volunteers assist with this research. A total of 72 game counts were done this year in support of the continuous long term monitoring of ungulate distribution over the seasons in the different vegetation densities. CCF researchers covered about 2 000 km of strip-counting and spent 144 hours counting game on Elandsvreugde.

Don Muroua, CCF's Community Development officer and Research Assistant has been responsible for conducting game counts for the last four years. During the past year, he analysed this data for his B Tech research paper entitled "Ungulate distribution over seasons in different vegetation zones".

Information derived from these methods and techniques yield estimates as to which animals are utilising CCF's farm. Furthermore, they should indicate, as a percentage, the utilisation of the various sample areas within the farm, according to species identified. Information gathered from these results will be used to identify areas and patterns of utilisation of the land by wildlife. It will provide valuable information leading to wildlife farming management decisions within the conservancy.

The 6th annual Waterberg Conservancy full moon waterhole count was held in August 2000. CCF again hosted and coordinated the waterhole count volunteers, of which over 100 volunteers assisted. The waterhole count provides an estimate of populations and density of various game species on the farms of the Waterberg Conservancy. The count also provides information on group sizes and population demographics, all vital to a long-term monitoring programme. Data from this waterhole count is currently being analysed by CCF staff and will be finalised for dissemination to Waterberg Conservancy members early in 2001.

6. Human Impacts on Cheetah

Livestock loss to cheetahs is an economic and emotional issue. While farmers perceive cheetahs as having an excessive economic impact on their livestock and wild game industries, many Namibian farmers have done little, from a management perspective, to alleviate their problems in a non-lethal manner. By addressing the farmer's conflicts with predators, CCF is devising a conservation and management strategy that benefits both humans and cheetahs, thus ensuring the species' survival on livestock farms. Through direct contact with individuals, farmer association meetings, a bi-annual Farmer's Newsletter as well as a survey form and calendar, CCF informs the community of its progress and encourages it to remain actively involved in all aspects of its programmes. During this reporting period, two newsletters were mailed to over 2,000 people in Namibia, updating them on CCF's activities and research findings.

CCF remains an active member of the Otjiwarongo community. During the past few months CCF's entire staff joined the volunteer fire fighters to assist with putting out multiple veld fires.

a. Livestock Guarding Dog Programme

CCF's Livestock Guarding Dog (LSGD) programme has continued to grow with nearly 120 Anatolian Shepherd Livestock Guarding Dogs working with livestock. Livestock guarding dogs provide a method of non-lethal predator control that protects the farmer's livelihood while also conserving the predator species. The dogs continue to be monitored by CCF in a bi-annual evaluation of adult dogs and monthly evaluation of puppies for the first six months. CCF has developed a Livestock Guarding Dog and Livestock Research Programme at its Centre, and continues as a breeding facility for these dogs. Susan Deshaies, Lien Malan, and Don Muroua are responsible for the Livestock Guarding Dog programme. Susan works with CCF's dogs in breeding and placing puppies, Lien calls farmers regularly to monitor the progress of the dogs, and Don works in the communal area on dog placement and monitoring progress.

January 2000 saw the placement of nine puppies born to CCF's Caesar and Zanta. Four puppies were placed with commercial farmers, five with communal farmers. In February, eight puppies born to Caesar and CCF's Tyger were also placed. Four puppies were placed with commercial farmers, and four with communal farmers. Monthly calls to new participants indicate that the dogs are working according to expectations. The commercial farmers are reminded to have the dog neutered by the age of eight months and most are complying. The puppies are also up to date with their vaccinations.

In March 2000, John and Rosanne Firreno, Anatolian Shepherd breeders in the U.S, donated a puppy to CCF's programme. This new Anatolian Shepherd brings a new bloodline into Namibia. "Mwagusi", a male, was placed at the farm of Carla Meyer, in Okahandja who has had a female LSGD since June 1998. "Mwagusi" will work with Ms. Meyers second herd and she will participate in CCF's LSGD breeding programme.

A Livestock Guard Dog Owners Workshop was held in Otjinene in June and was attended by nine LGD owners, two potential LSGD owners, Mr. S. Tjitjo (MET) and four CCF staff members. In addition, Dr. A. Bagot-Smith a veterinarian, commercial farmer and LSGD owner presented a lecture on care and feeding of the Anatolians. He discussed the various dog diseases, internal parasites, proper worming, nutrition, the importance of feeding and the impact it has on the dog's guarding ability and growth. The feedback was very positive and participants felt they had a better understanding of how health and food quality and quantity affects their dog's development and guarding ability. The objectives of the workshop were to review the progress of the dogs and to have the farmers share their experiences in the raising and training of their dogs. The workshop was informative and carried out in a participatory manner. The findings show that the LSGD programme is successful and more farmers in the communal area would like to become part of the LSGD programme.

Currently, there are 20 dogs in the communal area. CCF sponsors the sterilisation of communal farmer's livestock guarding dogs to eliminate the possibility of cross breeding. In addition, neutered Livestock Guarding Dogs are not distracted during breeding periods and perform their duty of protecting livestock better. By the end of 2000, there were eight 1-year-old dogs, three 17-month old dogs, and five 2-year old dogs, and one 3-year-old dog.

In total 12 dogs were reported dead this year. Two communal dogs died, one by accident and one from snakebite. In total, ten deaths were reported on commercial farms including one each by accident, snakebite, tick fever, lost, and euthanised from wounds from a predator. In addition, 4 were shot by their owners and one died from unknown causes. Most of the Anatolians placed earlier in 2000 are doing well and the owners are very happy with them.

Two of CCF's female Livestock Guarding Dogs have recently been bred with CCF's male, Ceaser, in November and December 2000. Puppies are due in January and February 2001.

As a part of the renovation of CCF's facilities a grant was given by Ele-friends in Australia to rebuild the Livestock Guarding Dog whelping yard and attached goat yard. Several members of the media reported on CCF's Livestock Guarding Dog Programme, which has generated much interest in the programme as well as financial support.

b. Conditioned Taste Aversion (CTA)

CCF was informed a couple of months ago via a telephone call from the Ministry of Environment and Tourism's (MET) Carnivore Coordinator that MET does not want CCF to conduct CTA trials any longer. He indicated that a letter was sent, should have been sent or will be sent on this. As of yet, CCF has not received any official notice.

In research trials elsewhere, CTA was shown to be an effective non-lethal predator control method. Predators have been presented with a livestock bait that is laced with a salt substance (lithium

chloride) that makes the predator ill when eating the bait. This teaches the predator that livestock is "poisonous," creating an aversion for that prey. The research was being conducted in collaboration with Dr. Debra Forthman, Director of Field Conservation at Zoo Atlanta. In 1999, two captive leopards successfully completed the CTA trials after which they were radio-collared and released into the wild. A third leopard failed the test and was not released.

c. Community Outreach

Don Muroua, CCF's Community Development Officer, continues to work closely with Namibia's communal farmers, and CCF's Senior Research Assistant, Bonnie Schumann, and CCF's Director work closely with commercial farmers. CCF believes that conservation programmes and efforts will not succeed if the targeted communities are not benefiting. With this in mind, CCF has been actively involved in the development of conservation programmes in the Otjozondjupa and Omaheke Region.

The communal farmers in these regions are dependent on livestock for their daily livelihood; therefore, livestock losses through predation have a large impact on their income generation. Predators therefore are considered problems. The main "problem" predators in these communal regions are the black-backed jackal, leopard, caracal lynx, wild dog, and cheetah. Livestock and predator conflicts in these regions are common, because there is not enough wild game in the area to support the predators.

During the first six months of the year Don visited approximately 200 farmers. These informal visits appear to be welcomed and successful. Many farmers want to learn more about the Livestock Guarding Dog project, while others want to learn more about conservation in a broader term.

In July 1999, the Namibia Communal Wildlife Conservation Group (NCWCG) was established to promote conservation ethic and to facilitate cooperation between the farmers and the different conservation organisations. CCF played a very important role in the establishment and continuing development of the group. Don Muroua has had some discussions with Mr. S. Tjitjo (MET Warden-Okakarara) about different strategies needed to reach the goals set by the NCWCG. In September, Don attended the Torra Conservancy's Annual General Meeting that was attended by over 120 community members. He presented information on CCF and included information about how they could reduce livestock losses due to predation through livestock management. CCF staff also attended two meetings in the western part of Tsumkwe District that brought together the Okotjituuo leadership with the Omatako leadership to discuss issues concerning the develop of a conservation area.

During August, CCF staff attended two communal farm area Agricultural Shows, one in Okakarara and the other in Okamatapati. CCF's booth was well attended at both shows with well over 100 farmers and 300 children. Educational presentations were given using a variety of visual aids. Many farmers appreciate the role CCF is playing in the conservation efforts in this communal area, especially the donation of the Livestock Guarding Dogs.

During September, CCF education staff, headed by Graeme Wilson, crossed Namibia to attend the Swakopmund, Otjiwarongo and Grootfontein Agricultural Shows. CCF's exhibit this year focused on predator friendly farming practices and CCF's new public Education Centre. Special travelling display panels were developed for the staff to take to events like this. CCF achieved good results with this new exhibit and received a second place for the exhibit at both the Swakopmund and Grootfontein show and received a third place certificate at the Otjiwarongo show. CCF's Education Centre proved of particular interest to the many teachers visiting the stalls. Many valuable contacts were made with the people visiting the exhibit.

CCF staff assisted several farmers and provided them with additional information on predator issues and livestock management carried out several farm visits. Several farmers were consulted by telephone and follow up information was posted to them. An additional farm visit was carried out to

assist the owner with two captive cheetahs, during which predator and livestock issues were discussed.

CCF hosted one of the neighbouring farmers association meetings at the facility. This was as a direct result of one of the members contacting CCF last year after shooting a tagged cheetah. During this meeting members learned about livestock management during a presentation on CCF's activities. CCF staff attended several commercial farmers' meetings including the Platveld Farmer's Association of which CCF has become an active new member. CCF staff presented slide programmes at the new Omirunga Conservancy in the Grootfontein area and to the Veldduin Farmer's Association in the Mangeti farming area, north of Grootfontein. Besides cheetah problems, farmers' problems with leopard and wild dogs were also discussed.

d. Waterberg Conservancy and the Conservancy Association of Namibia (CANAM)

CCF remains active in the Waterberg Conservancy. In particular, CCF staff attended several meetings to discuss and develop wildlife monitoring techniques and the development of the Conservancy's Master Plan. In addition, CCF continues to promote and support eco-tourism within the Conservancy. Several international tour groups visiting CCF, including private tour groups, zoos and museums, over-night for one or two nights at Conservancy guesthouses thus providing revenue to this region, in the name of the cheetah.

CCF's Director is the vice-chair of CANAM, an umbrella body for the promotion of conservancies in Namibia. Conservancies encourage sustainable utilisation of natural resources through co-operative management, based on sound conservation principles. One of the major issues being addressed by both the Waterberg Conservancy and CANAM is gazetting law officiating conservancies. This is being undertaken as a part of the new Wildlife and Environment Legislation Act, which is being written currently by MET. During the reporting period, Marker attended two main meetings on this issue. In addition, CCF's Director coordinated a meeting with the northern commercial conservancies to which she is the main representative. The meeting was to share CANAM business with its members, discuss the new wildlife laws and promote the idea of bringing together these northern Conservancies in collaborative game count methodologies. Conservancies and their wildlife management techniques will continue to be extremely important for long-term cheetah conservation.

e. Government Meetings

CCF Director and some of CCF's board members attended several major government official meetings during the past reporting period. Most importantly, CCF hosted the first US delegation to Namibia of members of the US Congress in July. Three ranking members and their wives participated: Congressman and Mrs Clay Shaw; Congressman and Mrs Sonny Callahan; and Congressman and Mrs Hal Rogers. The delegation, arranged by Vance Martin, CCF's US President from The WILD Foundation, and David Barron (WILD board member and long-term supporter of CCF), were hosted by and met with The Minister of Environment and Tourism and his Permanent Secretary, and had a two hour working breakfast with Namibia's President, His Excellency Dr. Sam Nujoma. The U.S. Ambassador, Jeffrey Bader, was a part of these meetings.

CCF issues were on the agenda because of the significant financial and technical support transferred to CCF Namibia from the US. During the course of a wide-ranging discussion on bi-lateral issues, the Congressmen raised CCF's request to, under strict guidelines, loosen the Namibian ban on export of live cheetah. President Nujoma, CCF Namibia's Patron, was very forthcoming and agreed to instruct the Ministry of Environment and Tourism to work under CITES guidelines and allow export of 10 live cheetah to the USA to support their *in-situ* conservation programme and to provide new genetic bloodlines for this managed captive population of cheetahs. Another of President Nujoma's issues on which he asked CCF to assist, is the creation of a model, sustainable industry to selectively clear the increasing bush encroachment that is fast altering the Namibia countryside. The Congressmen agreed to help work toward solutions to this matter. Following the meetings in Windhoek, the delegation flew

to CCF headquarters in Otjiwarongo, toured the facilities. Since this meeting, import permits are being secured from the United States Fish and Wildlife. An additional meeting was held with the Minister and Deputy Minister of MET and the Permanent Secretary and Minister of Foreign Affairs on the cheetah export during a visit by CCF US board member John Lukas, from the White Oak Conservation Center, where some of the exported cheetahs will go.

CCF's Director, along with CCF's General Manager, Dr. Bruce Brewer, and CCF's Namibian Chairman, Dr. Arthur Bagot-Smith, attended a meeting on bush encroachment with the Deputy Ministers of Agriculture and Trade and Industry, as well as the Permanent Secretary of the Ministry of Environment and Tourism. CCF is working to secure funding to develop a bush processing plant in Otjiwarongo. CCF plays an important role not only with cheetah conservation, but is recognised as caring about the country as a whole and its economic future.

CCF Director attended two meetings by MET on the new wildlife policies currently being drawn up. These new laws will affect the cheetah's long-term habitat and ultimate survival. It has been very interesting to be an invited part of this important new Wildlife Act. Key issues for the cheetah include proper wildlife management; the detrimental effects game farms have on cheetahs and banning the use of certain poisons.

f. Namibian Professional Hunters Association and Cheetah Trophy Hunting

CCF continues to cooperate with NAPHA members and other landowners in their role in cheetah conservation programmes that are necessary to support sustainable use of cheetahs. During this reporting period, the US Fish and Wildlife released its decision to not support the downlisting of cheetah from the US Endangered Species List. CCF supports this position, as there still is not enough data on the numbers of cheetahs and population trends in the country, as a proper census has not taken place. This is a prerequisite for the downlisting of a species off the US Endangered Species List.

In 1998, CCF received grants from WWF-USA and the United States Fish and Wildlife Service to support a workshop on cheetah census and survey techniques and analysis. As of yet, this workshop has not been conducted. CCF continued to negotiate with MET and the Forum to initiate the census workshop. While in the US in October, CCF Director met with key members of the US Fish and Wildlife Department along with representatives from the Conservation Breeding Strategy Group of the SSC's IUCN, Safari Club International and World Wildlife Fund to discuss the downlisting issue and the census methodology workshop. It was decided to use the funds available, to hold a regional workshop in South Africa, additional funding will be necessary.

Other issues discussed included alternatives to downlisting as a quota for importing trophy hunted cheetahs into the US from Namibia. There is a way that a trophy shot cheetahs could be imported into the US but there has to be an economic benefit to cheetah conservation and species survival initiatives as part of the justification to do so. Letters of such have been sent to NAPHA, Safari Club International and Conservation Force.

g. Large Carnivore Management Forum

CCF staff regularly attend meetings of the Large Carnivore Management Forum initiated by MET. The Group consists of members from MET, NGO's, farmers and veterinarians concerned with carnivore conservation. The group meets every eight weeks to discuss issues pertaining to carnivore conservation in Namibia. Issues that have been dealt with in the last year include, legislation on carnivores, from captive holding to trophy hunting, the national census for cheetah and developing the forum into an association. At the end of the year meeting, the founding members of this new association were selected.

C. Education Activities

1. School and Community Education

Public education and the development of an active grassroots constituency are integral components of the overall cheetah conservation programme. CCF is educating farmers, teachers and the public about the need and methods 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 in Namibia. CCF's Education Centre Curator, Graeme Wilson and Education Officer, Matti Nghikembua, organise and direct all education programmes. During this reporting period over 2000 students and youth group members attended a CCF programme either at the CCF Centre, at their school, or in their community. Educational highlights are as follows.

The relationship between CCF and regional youth forum has continued to progress. CCF staff participated in the 2nd annual Kunene South Regional youth forum meeting where they learned about various issues affecting youth, critical for conservation. CCF's Community efforts also deal directly with youth that are interested in conservation. The youth are the future leaders of tomorrow, and they will determine the future of the cheetah in Namibia. Apart from being exposed to CCF's research and conservation programmes, youth are encouraged to commit themselves to environmental conservation. They are asked to identify local and regional environmental problems, their causes and effects. Some of the issues identified by the youth that affect conservation include: commitment by the youth; lack of or inadequate support from the local businesses, local community and authorities; lack of resources, money, skills, manpower; and coordination of activities

In February, resource materials were donated to the Ministry of Environment and Tourism and the Ministry of Higher Education, Training and Employment Creation. The resource materials were donated to both Ministries for distribution to the relevant environmental education sections. The donation consisted of 28 Teachers Resource Guides, 28 Cheetah Survival on Namibian Farmlands, and information brochures. Panduleni Hamukwaya, National Coordinator for Environmental Education (Youth and Sports), and Elias Amunime from the Ministry of Environment and Tourism received the donations.

CCF short-term volunteers Mary Wykstra-Ross and Kayla Grams donated stationery items to the Rogate Primary School in Otjiwarongo in March. The purpose of the donation was to establish a link between learners from Rogate Primary School and learners from an overseas school in the USA. The learners and the staff of Rogate Primary School warmly received the donation. Susanne Garrison made a generous donation of books and stationery items to Rogate Primary School library in April. As part of the project the learners created drawings illustrating their culture and drawings of hands, which will be part of a children's festival in the USA.

In April, CCF's children's book entitled: *The Orphan Calf and the Magical Cheetah* was given and awarded by the Namibian Children's Book Forum for Children's Non-fiction and the Grossman Prize for Non-fiction. The award, a medal, was received by CCF's Don Muroua and CCF's board member and book's publisher, Jane Katjavivi. The First Lady of Namibia, Mrs. Kovambo Nujoma, gave the award.

The third annual town clean up campaign of Otjiwarongo was celebrated in April, with close to 700 participants. The event was co-organised by CCF and the Regional Youth Officer of Otjiwarongo, Mr. Gerson Geingob. The Deputy Permanent Secretary of the Ministry of Environment and Tourism, Mr. Simenda Simenda, delivered the keynote speech on behalf of the Honourable Minister of Environment and Tourism, Mr. Fillemon Malima. The Major of Otjiwarongo, Ms. Moderata Shaduka, delivered an opening address for the event. Streams with litter were cleaned during this event, signifying the importance of water for a healthy environment.

CCF staff attended a market research survey in May organised by the Community Skills and Development Centre (COSDEC). The objective was to identify and provide relevant training to the community. COSDEC provides a wide range of training, most of which consist of vocational training and computer literacy.

In June, the United States Embassy and the Diplomatic Spouses Organisation honoured CCF's Director for her recent honour of Hero for the Planet by Time Magazine. The event brought together over 100 learners (up to 3 prefix's from each secondary school) in the Windhoek area. Laurie Marker gave a presentation about CCF and talked with all the learners about leadership roles and career paths in science and conservation.

CCF staff, together with an Earth Watch team, completed a bio-medical workup on a trapped cheetah at a primary school in the Summerdown area, east of Windhoek. There were around 200 learners from grades 1 to 4. After watching and participating in the procedure the student participated in a presentation concerned with Namibia's predators and included the differences between leopards and cheetah. A number of CCF resource materials were donated to the school.

CCF's Graeme and Manda Wilson presented an outreach programme specially developed for a holiday farm to the west of Windhoek. CCF visited the farm on two occasions and presented the same programme to two visiting schools from Windhoek. CCF will now become part of their regular programme.

CCF continues to receive feedback from the Geo cheetahs launched at schools overseas. Local schools in Kalkfeld, Otjiwarongo, Otjikoto and Omaruru launched these. The overall progress of the project could not be determined at this time, because of delayed responses from the international host schools. The Geo cheetahs are due to arrive back to Namibia during the first six-month period of the year 2001.

2. CCF Education Centre and Wilderness Camp

CCF's Research and Education Centre provides on-site public education and student training to local students of all ages and foreign university students. It allows students to be exposed to CCF's integrated research programmes on the cheetah's ecology, habitat and prey base, and the demonstration of CCF's non-lethal livestock/predator management techniques. CCF's Education Centre and Wilderness Camp hosts school and community groups, exposing them to different environmental education activities including a Nature Trail, games and other environmental awareness activities. Learners and visitors from various regions visit the Centre. Since the dedication in July, over 250 groups of visitors have visited CCF's newly developed Education Centre.

The majority of CCF's educational programmes during the year have taken place at CCF's Centre. The Centre continues to receive visitors from schools, regional youth groups, youth officials, tourists, teachers, health officials, farmers, conservation and agriculture extension officials, students and the general public. The most significant participants were youth groups and schools from different regions of the country. Participants are exposed to the issues affecting the survival of the cheetah, by participating in various interactive activities and presentations. Various issues are presented regarding factors that affect conservation efforts at community level.

Environmental clubs from Paresis and Okakarara Secondary schools were involved with the Round River Conservation Program. These included learning about the ecology and natural history of the farmland that supports the survival of the cheetah, and also helping with the field surveys conducted. The research projects conducted by the students included bird surveys, animal density and movement, distribution and densities of tree/bush and grass species. The visiting Okakarara Nature club attended various lectures held by Round River Conservation Studies at CCF's Cheetah View farm. The experience gained by the learners was of a great benefit because it allowed them to get exposed to research, ecology and the natural history of the farmlands.

Several youth groups visited CCF. Organised programmes at the Centre were designed mainly for groups accommodated at the wilderness camp. In March, Raleigh International arrived at the Wilderness Camp to build six new huts. The Wilderness Camp can now accommodate 24 people overnight in 12 huts. All groups visiting CCF are given an in-depth presentation and are exposed to the Namibian farmland ecosystem through the nature trail. Team building activities are designed for various reasons, signifying the importance of team efforts in conservation. Role-play and drama were also included in the programmes. These included scenarios of livestock and predator management. The team building obstacles in CCF's new predator "preyground" will in the future be developed further thus broadening the scope of the education programme.

A group of unemployed youth from the Anker District Youth Group used CCF's Centre to teach group and individual skills in communication, leadership, cooperation, thinking and responsibility. Each of these issues is related to conservation and the conservation ethic by CCF's educational staff through discussions on conservancies and interactive activities including using drama to illustrate conservation. The Kunene Youth group helped renovate the huts at CCF's wilderness camp as a community project.

During July, CCF hosted a youth group from the Abingdon Academy in Oxford, England. While here, the group joined forces with members of the Paresis Environmental Club, Otjiwarongo. The two groups worked together on environmental issues as well as building CCF's new Predator Preyground. One of CCF's objectives is to bring students together from around the world to share conservation experiences and knowledge.

Also during July, a student group from the Epandulo Combined School in the Oshikoto region visited CCF as part of a trip to explore their country. This group, under the guidance of teacher Hosea Ester and Peace Corp volunteer Rebecca, worked all year to raise funds for their trip. This was the first time some of these students had ventured further than 60km's from their home village.

3. CCF In-service Training and New Field School

During the year, 17 international students conducted short term in-service training or conservation biology courses at CCF including Oxford research assistant Amy Dickmann, 13 US students with Round River Conservation Studies and three students from Aberdeen in UK.

Alfred Gaseb, a student intern from the Polytechnic of Namibia completed a six-month in service training at CCF. During his training, Alfred helped to develop a baseline vegetation survey for Cheetah View and assisted with the surveys undertaken. He was also involved with the Round River Conservation Studies and attended Conservation Biology lectures. Alfred was also involved with the daily activities of CCF. Two University of Namibia Agriculture students conducted their in-service training at CCF during the first half of the year.

Between January and April and September and December thirteen students from throughout North America completed the third and fourth course of Round River Conservation Studies field school at CCF. The student groups each spent three months learning conservation biology, ecology and the natural history of Namibia under the guidance of Dr. Richard Jeo, Jerry Scoville and Ali Scoville. Round River Conservation Studies is linked to Utah State University and has developed partnerships in field conservation focusing on predators and monitoring of prey species. Dr. Sanjayan Muttulingam, UC Santa Cruz, and Dr. Dennis Wilson, Arizona State University, were visiting lecturers during this time. CCF's Don Muroura and Matti Nghikembua participated as assistant teachers sharing their knowledge of the Namibian ecosystems.

During the past few months CCF's Director and Research Director, Dr. Richard Jeo, have communicated extensively with the Vice-Chancellor of University of Namibia as well as the Dean of

Biology to develop a University of Namibia Certification programme for Biology students. A programme is currently being developed.

4. Staff Education

Two members of CCF staff are currently enrolled in higher education as well as continuing their regular duties at CCF. A third will join them in January 2001.

CCF's director, Laurie Marker, is currently enrolled as a Ph.D. candidate at Oxford University in the Zoology Department's Wildlife Ecology Programme, known as WILDCRU, under the supervision of predator specialists Drs. David McDonald and Gus Mills. In September she turned in her year's project report and presented her research to date, for her panel. Three papers are nearly ready for publication. It is envisioned that she will complete her studies and final write up of her dissertation by early in 2002.

Don Muroua, CCF's Community Development Officer is currently enrolled in a B-Tech Nature Conservation programme at Polytechnic of Namibia. He completed most all course work at present and completed his research paper. Don Muroua was also given a scholarship by the Green Trust to attend the South Africa Wildlife College. The Green Trust organised a training course for project leaders in the field of Conservation Based Community Development

CCF's Education Officer, Matti Nghikembua received GIS training at James Reserve and Redlands University in California, USA. With the support from CCF, Matti was privileged to receive an International Scholarship from the Society for Conservation GIS (SCGIS) and the Environmental System Research Institute (ESRI), to attend the GIS training and the annual conferences of both ESRI in San Diego and SCGIS in Anza Borrego, California. CCF's Matti has been accepted on to the B-Tech Nature Conservation course and will be starting mid January 2001.

5. Media and Public Relations

CCF has maintained a high profile in the media through numerous broadcasts on television and in the print media. In recognition of her years of conservation work for cheetahs, CCF's director, Laurie Marker, was invited to San Francisco to participate in the first Hero for the Planet ceremony along with 40 other international conservationists by Time Magazine and the Ford Motor Company. Later in the year, the Cincinnati Zoo presented Laurie Marker with the Zoo's prestigious Barrows Conservation Award for her continuing work to secure the future of the wild cheetah. CCF U.S. board member Cathryn Hilker, founder of the Cincinnati zoo's Cat Ambassador Programme and the Angel Fund, received a similar award to acknowledge both her and her husband, Carl Hilker's support of CCF in Namibia.

Press reports include:

'Diagnosis and procedures performed on cheetah male' by Dr. Martin Wucher. Barrows Conservation Lecture Series "Giving Cheetahs a Chance" – Wildlife Explorer, Jan-Feb 2000.

"Laurie Marker" - Current Biography February 2000.

"Wêreld eer Namibië se 'luiperdvrou'" – Republikein, 19th May 2000.

"Cheetah Lady" Hero of the Planet' – New Era, 22-25th May 2000.

"Cheetahs on the Run" – Heroes for the Planet, Time special Edition April-May 2000.

"Cheetahs at Risk" by Sharon Pincott – Elefriends Newsletter No 23.

'Good Cause' – The Namibian, 17th July 2000.

'Education is the Key' – The Namibian, 25th July 2000

'Education is the Key' – The Namibian, 27th July 2000.

'Nuwe sentrum ingewy' – Republikein, 26th July 2000.

'Ranchers protecting cheetahs in Namibia, Southwest Africa...' advertisement for the CCF video.

Cheetah: The Struggle to Survive – The Compendium Newsletter Sept/Oct 2000.

'Wild Tales', Elaine Fisher in The Lady, April 2000.

'Windhoek Show' – Republikein 29th Sept 2000.

Allgemeine Tourismus, Aug 2000.

'Publications' – Newsletter of the Society of Woman Geographers, advertisement for "Cheetahs on the run" written by TIME.

Visiting photographers and journalists:

Martin Harvey from South Africa, Balthasar Burkhard from Switzerland, Zoe Titus and Sarah Taylor, The Namibian, Henk Coetsee, MET for the Republikein, Martin Harvey, South Africa, Austen Stevens, Namibia, Ms. Du Toit, Africa Magazine and free-lance writer, SA, Guy Stubbs, Green Trust Projects. Fiona, Automic Productions, two reporters in December looking at using CCF for TV documentaries South Africa radio show about Livestock Guarding Dogs and CCF. UK radio programme - the Libby Purchase show. TV programmes in the US: CNN – Business Unusual in New York, 3 local news programmes on Cincinnati TV, Oregon's AM NorthWest TV programme, Canada's Discovery TV – Live remote. Film companies: Brite-Side TV – programme on the Livestock Guarding Dogs for 'Animal Planet'

D. International Activities and Meetings

The Fund assists in international programme development and adapts model programmes developed in Namibia for use in other countries, distributing CCF materials and information throughout Africa, Europe and the United States. CCF's director is one of five vice chairs of the IUCN's Cat Specialist Group and maintains international communications on the status of the wild cheetah population worldwide, including its relationship with man and threats to its survival.

1. The Director's Presentations

CCF's Director gave a presentation to a Women's group of American Businesses in South Africa in February. She presented a lecture for the WILDCRU of the Department of Zoology in Oxford, UK. She also presented at the Cheetah Species Survival Plan (SSP) meeting and for the Felid Tag Group of the American Association of Zoos and Aquariums (AZA) in April. The Director gave an invited paper at the Namibian Scientific Society's 75th Anniversary meeting and presented a keynote lecture at the Swedish Federation of Zoo's annual conference.

2. International Cheetah Studbook

CCF's director is the Keeper of the International Cheetah Studbook, which is a registry of all cheetahs living in captivity. The 1999 International Cheetah Studbook was published and distributed worldwide in April. The Studbook is a registry of all cheetahs in captivity and serves as a guide for regional and global captive breeding programmes. As of 31 December 1999, the world's captive population of cheetahs was 1296 (668 males, 620 females, 8 unknown) in 272 facilities in 51 countries. Published within the Studbook were several articles and reports about cheetah from captivity as well as in the wild. This is the second time the studbook was distributed to cheetah facilities on a computer disk instead of a hard copy. The 2000 *International Cheetah Studbook* is currently being compiled.

3. IUCN SSC's Conservation Breeding Specialist Group (CBSG) Annual Meeting

In October, CCF's Director and Amy Diekman, CCF Research Assistant, attended the annual meeting of the IUCN's CBSG meeting. A slide presentation was given on CCF's activities to the international audience of conservationists. CCF's Director had asked for time at the CBSG meeting to begin planning for a Global Cheetah Master Plan meeting. Several of CCF's international cheetah colleagues met as a working group during the three-day conference. The Global Cheetah Master Planning meeting is planned for August 2001 in South Africa and will include cheetah specialists from cheetah range countries and captive managers. The purpose of the Master Plan is to coordinate strategies for long-term cheetah survival incorporating *in-situ* and *ex-situ* research and conservation.

4. Matti Nghikembua's USA Visit

CCF's Education Officer, Matti Nghikembua was given a partial scholarship to travel to the United States by the Environmental System Research Institute where he received training in their GIS ArcView and ArcInfo computer mapping programmes. While there he presented a paper entitled: Habitat Monitoring for the Endangered Cheetah in Namibia, at the annual conference for the Society for Conservation GIS (SCGIS) conference in Anza Borrego Springs, California and a poster at the Environmental System Research Institute's (ESRI) annual conference in San Diego California. The presentation and poster focused on CCF's efforts and the use of GIS in both the education and research programs. Professionals from GIS related fields attended the event, where various papers were presented, by both the international scholarship recipients and by invited guests.

During his visit to the USA Matti Nghikembua visited and gave presentations at the following organisations: National Cancer Institute, Maryland, Smithsonian's Conservation Research and Education Centre Virginia, Society for Conservation GIS, Anza Borrego Springs, California, the Environmental System Research Institute, San Diego California, Cincinnati Zoo and Columbus Zoo in Ohio and San Diego Zoo in California.

5. African Zoo and Reserve Educators Network (AZOREN) Meeting

CCF's Education Officer, Matti Nghikembua attended the first African Zoo and Reserve Educators Network (AZOREN) meeting during May in Pretoria, South Africa. A total of 13 countries were represented, with most participants being from South Africa. The main objective of the conference was to create a link among African Zoo Educators, in order to facilitate networking. The participants of the workshop also shared some of their experiences of Zoo education, discussed and identified areas that need networking efforts. Matti also presented a slide show about CCF efforts.

E. CCF Organisational Activities

1. Development and International Fundraising

a. United States and Canada Fundraising

CCF's Education Officer, Matti Nghikembua attended a CCF Cheetah Run for Survival fundraiser event that took place in June at Foothill College, near San Francisco, USA. Matti had the opportunity to thank CCF supporters for their help and interest in the survival of the cheetah.

During September and October, CCF's Director conducted her annual fundraising and lecture tour. This year she visited three continents, five countries, 12 states and over 20 cities. The lecture tour helped to raise much-needed money for CCF's Namibian projects and international work. CCF's message reached thousands of people during this trip. During the two months, CCF's director lectured at several universities and private and community events organised by members of the US CCF Chapters in New York, Chicago Cincinnati, San Francisco, Seattle and Portland. All organised several lectures in each city and included among others lectures at the Cleveland Metroparks Zoo, the Oakland Zoo, the Oregon Zoo, the Hogle Zoo, the Metro Toronto Zoo. In addition, CCF's Director was the keynote speaker at the American Association of Zookeepers conference in Columbus. A new chapter has been developed in Southern California. And CCF Canada was launched while she was in Toronto. In Washington DC, CCF's Director and CCF's Research Director met with the Namibian Ambassador and US Congressmen who visited Namibia in July, as well as with several conservation granting organisations. In addition, they meet with research collaborators at the National Zoo and the National Cancer Institute, and the University of California at Davis.

b. Namibian Fundraising

The CCF Namibian Board of Directors continues to become more active in CCF's activities. In March, a Board Retreat was conducted. The board met on two separate weekends to look at CCF's future. The board developed a new Vision and Mission statement 2000. Many tasks were laid forward for the board during the next year. CCF's main fund raising activity is its annual dinner. Over 300 cheetah friends and supporters joined Namibian Prime Minister, Right Honorable Hage Geingob, at CCF's second annual fundraising dinner, on 15 July 2000, at the Windhoek Country Club. The Celebration of Speed and Elegance, as the dinner is called, featured three guest speakers and a lively silent auction. Dr. Hu Berry, Principal Conservation Scientist for MET, gave an enlightening slide presentation on Namibia's large carnivores, Vance Martin, President of the US based WILD Foundation, presented a chronicle of the ten-year development of the Cheetah Conservation Fund, and John Lucas, Director of the White Oak Conservation Centre in the USA presented an overview of Okapi conservation activities. Silent Auction items were generously donated by Namibian and international artists and local businesses. CCF staff Susan Deshaies coordinated the dinner, and Lien Malan designed table decorations in house.

c. South Africa Cheetah OutReach

Cheetah OutReach, based at Spier Wine Estate in Stellenbosch, South Africa, has continued to support the efforts of CCF through their educational outreach programmes. Financial support from this programme has contributed to CCF's Centre renovation project.

d. UK Fundraising

Due to the great interest in CCF's work a UK chapter of CCF has been firmly established. A board meeting was held in October to plan CCF activities for 2001. Alan Lester, one of CCF's UK board members, has commissioned CCF t-shirts and mugs and these are currently being sold in his Oxford retail store.

2. Volunteer Programme

Volunteers are the backbone of CCF's programmes. During the past six-months over 46 volunteers have assisted at CCF. CCF continues to work with EarthWatch volunteers of which four come to the Centre every other month for a two-week period. For the year, the EarthWatch programme totalled 24 volunteers that assisted in all aspects of CCF's programmes. CCF continues to work with the British youth development organisation, Raleigh International. Between March and May, 45 Raleigh ventures built six huts at CCF's Wildernes Camp.

3. CCF Staffing

CCF's permanent staff includes:

Laurie Marker – Executive Director

Dr. Bruce Brewer – General Manager

Dr. Richard Jeo - Research Director

Bonnie Schumann – Senior Research Assistant

Amy Dickman – Research Assistant

Mandy Schumann – Farm Manager

Don Muroua – Community Development Officer

Matti Nghikembua – Education Officer

Susan Deshaies – Business Manager and Livestock Guarding Dog Coordinator

Graeme Wilson – Education Centre Curator

Manda Wilson – Publications Assistant

Lien Malan – Part-time Public Information Officer and Research Assistant

CCF also supports fourteen Namibian farm and domestic workers.

V. PLANNED ACTIVITIES: January –December 2001

During the next year CCF will:

- Continue working with farmers in cheetah related issues and reducing conflict.
- Continue with a tag-and-release programme and biological sampling of cheetahs.
- Continue the radio-tracking programme, with emphasis on female cheetah.
- Continue work with the Large Carnivore Management Forum Association.
- Coordinate the export of 10 cheetahs from Namibia to the United States for Namibia's President.
- Work with Ministries of Agriculture, Environment and Tourism and Trade and Industry on bush encroachment related research and bush industry development.
- Continue working with the Waterberg Conservancy in wildlife, habitat monitoring, eco-tourism activities and promoting the concept of conservancies in Namibia through CANAM. CCF will continue working with communal conservancies.
- Continue to expand the Livestock Guarding Dog Programme through breeding and placement of dogs. Two litters of puppies are due in early 2001 and will be placed during the next reporting period. Data on the dog programme are being compiled and analysed. Research will begin on the effective use of local dogs in communal areas for livestock protection.
- Continue to expand CCF's community development programme with emphasis on youth groups.
- Continue to conduct educational assembly programmes in schools throughout Namibia and assist teachers in the use of CCF's Teacher's Resource Guide through teacher training workshops.
- Follow-up with schools that have been involved in CCF outreach programmes.
- Conduct the fifth session of the Field College on Cheetah View in cooperation with Round River Conservation Studies.
- Work with University of Namibia in developing a certification programme for Conservation Biology courses.
- Continue with student research projects in co-operation with Namibia's Polytechnic and the University of Namibia. Other international students will also be joining CCF for intern programmes.
- Continue as a field station for EarthWatch and work with EarthWatch volunteers.
- Continue working with Raleigh International volunteers.
- Continue working with CCF's Namibian fundraising committee to recruit partnerships with local businesses.

- Assist with the development of CCF UK and CCF Canada.
- Assist Iran and India with developing a cheetah programme in their countries.
- Assist Zimbabwe and South Africa with their cheetah programmes.
- Assist with the Global Cheetah Master Plan meeting and the Regional Census Methodology workshop planning to be held in August.
- Publish research papers on CCF's research.
- Continue to host national and international journalists.
- Develop a marketing strategy for the promotion of CCF's new Education Centre to enhance eco-tourism to the region.

