

# CHEETAH Tracks



*The Newsletter of Cheetah Conservation Botswana*

*July - Dec 2013*

**DWNP Human Wildlife  
Conflict Project in Northern  
Botswana, Construction of  
Predator Proof Kraals.**



**Scat Analysis: Using Collected Cheetah  
Scats to Analyse Dietary Preferences.**

**Environmental Education Association of  
Southern Africa Conference (EEASA) in  
Lilongwe, Malawi.**

**SADC REEP Change Project Assessment  
at Lekgolobotlo Primary School.**



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# Research

## Predator Population Research in Ghanzi

Over the past four years, a number of ongoing CCB studies in Ghanzi District are using motion-activated cameras that have captured a large number of cheetah photos. From this photographic record, which comprises photos since 2008 from 13 different farms in the Ghanzi commercial farm block, we have compiled a Cheetah ID Book. Using unique spot patterns, we have identified 148 individual cheetahs (71 solitary cats and 77 found in a total of 24 groups including family groups and coalitions). Individual identification and recognition will allow us to better understand local cheetah population dynamics (numbers, territorial vs. transient individuals, where there are established territories and where not, etc.). Compilation of the ID Book will be an ongoing task as the various camera projects continue to yield suitable photos.



*Research officer, Phale Phale mounting a motion camera for the population studies in Ghanzi.*



*Some of the beautiful cheetah pictures caught with motion cameras.*



In light of significant human-carnivore conflict on game farms, a project was initiated to evaluate the potential for increasing the visibility of cheetahs on game farms in an effort to add value for photographic tourism. The idea was to place cheetah scats that have been collected elsewhere onto a suitable tree or artificial platform that can be viewed by tourists. Three trees have been involved in the pilot, serviced periodically by placement of scats, and monitored with motion-activated cameras. Two of the three have not shown evidence of cheetah visitation to date. The third tree has shown regular cheetah visitation but roughly on a monthly basis, whereas natural marking trees can be visited frequently, almost every week by territorial males. The pilot has at least shown that it is possible to lure cheetahs to an artificial marking tree, though great care must be taken in selecting a suitable location. We would like to be able to expand the study, although that is funding dependant. In the meantime, we intend to continue to monitor the one tree that is attracting cheetahs.

Scat collection and analysis is an on-going activity meant, primarily, to provide insights into diet and prey preferences. This is quite important for a number of reasons, not least of which is our interactions with farmers who may believe that cheetahs and other predators are a significant source of stock loss. Data from ongoing scat analyses can help to clarify the extent of stock depredation. Former CCB research coordinator, Lorraine Boast is working on a paper analysing cheetah diets using data from about 400 scats collected by CCB over the years. She has found that overall, livestock represent only a small percentage of the cheetah diet profile.

*Left: Research officer, Jane Horgan collecting cheetah scat from one of the marking trees in Ghanzi.*



# Research

## Kacgae Conflict Mitigation Study

This study is meant to evaluate whether kraaling livestock and employing livestock guarding dogs will help to reduce livestock losses to predators and improve farmers' perceptions of predators. Ten farmers nominated by their community (Kacgae) have been supplied with post-and-wire kraals, a livestock guarding dog, and free food and veterinary care for the dog's first year. CCB staff have been advising how best to feed their LSGDs in the transition and weaning period, and we will be closely monitoring the condition of the dogs going forward to ensure that they continue to receive adequate nutrition from the farmers. Follow-up visits to each farmer are being conducted at biweekly intervals to ensure the conflict mitigation activities are being properly implemented, as well as checking the condition of the kraals and dogs. Every three months, detailed questionnaires are conducted with each farmer to monitor livestock losses, assess perceptions of predators, and to monitor expectations about their farm and the project. This data collection regime will continue until 2015, and project results will inform our approach to implementing conflict mitigation efforts with community farmers going forward. Already we are seeing that, while our mitigation methods do work, there have been some constraints on their effectiveness in the community due to lack of commitment on the part of certain individual farmer participants.



*Phale Phale inspecting a puppy during one of his fortnight monitoring visits to the project in Kacgae.*

### Spoor Tracking

This project began in April 2012 and sees one cattle farm and one game farm, in the Ghanzi District surveyed for predator tracks for one week, every quarter until April 2013. The main aims of the study are to look at carnivore population densities on farmlands, relative differences between the various species, and sympatric associations. Spoor survey results will be applied to develop population estimates, and we will attempt to derive a relationship between those estimates and marking tree use data as documented by the cameras. Currently, we are not aware of such a technique and so, if successful, this will be a first for CCB. Also, the reliability of Bushman trackers to identify specific individuals and gender from spoor alone will be evaluated using genetic analysis of scats, if funding permits.

Although we have only conducted three quarterly events, we have already seen some interesting preliminary observations. High numbers of cheetah have been seen on both farms, but more on the game farm (which is consistent with other CCB projects that have found a higher density of cheetahs on game farms where their natural prey is more abundant). We have also seen a much higher density of cheetahs than expected, within one week in August on the game farm we identified the tracks of at least 7 different groups of cheetah (maximum possible 10) with a total of at least 13 individuals (maximum possible 18). We are also finding high densities of brown hyena and black-backed jackal, but very few leopard and caracal.



*CCB spoor trackers busy at work in the Ghanzi region tracking.*



## Research Collaborative Research

Rhona Barr of the UK-based Conservation Strategy Fund (CSF) visited CCB in July 2013 to help scope the parameters of a new study that CSF will fund to conduct a cost/benefit analysis of predator-friendly livestock management practices as compared to standard methods that typically don't include active stock management measures such as kraaling and LSGDs, and often include lethal control of predators. A formal proposal for this project was submitted in September and is expected to be approved and funded by CSF. The work will be a cooperative effort, with CSF contributing economic analysis expertise as well as funding to the project.

Ghanzi Camp and Research Coordinator, Rick McKenna, in between the 12th – 22nd of November 2013, was at the Kgalagadi Transfrontier Park (KTP) for 10 days assisting in a problem lion relocation study being conducted by Kalahari Research and Conservation (led by Dr Glyn Maude) and the Department of Wildlife and National Parks. Such relocations are filled with difficulties and potential problems that cause concern both for the survival of the relocated animal and for the stability of local wildlife structures including potential resident prides in the relocation area. Rick says he learned a lot about just how difficult, frustrating, and challenging the entire process can be. There were a lot of lions in the area where they were operating; a local pride (male and female pair with 4 cubs) was basically living in the old abandoned scout camp where they pitched their tents, and there was a separate group of 4 young males that also visited. Rick mentions that late one night, these 4 were roaming all through camp roaring, and not 3 meters from his tent, what an amazing experience! We hope that CCB will be more involved in such studies to learn, and to offer help and advice on how to move forward with predator relocations.

PhD dissertation: Loraine Boast, a former CCB Research Coordinator, is working on her dissertation which focuses on game farmers and their conflicts with predators in Botswana. As part of this research, she is using scat analysis data derived from CCB projects to document cheetah diet profiles and comparing those to the availability of all prey species, including livestock. She aims to have her dissertation submitted in March 2014.

M.Sc. project: CCB's Volunteer Research Officer & Long-term International Student,



*Rick McKenna with a problem lion to be relocated.*

Jane Horgan, is using farmer questionnaires to assess the effectiveness of livestock guarding dogs (LSGDs) and has been on Study Leave for three months (early October 2013 through early January 2014) in order to complete the statistical analysis of data and to write up her thesis for submittal. Initial results are showing that LSGDs are very effective at both deterring predators and increasing tolerance of predators by farmers. The study has broken new ground by showing that local "Tswana" dogs can be more effective than expensive purebreds (such as Anatolian Shepherds), thus making a local LSGD more economically practical to low-income farmers.

Late in July, Rick McKenna joined CCB in the combined position of Ghanzi Camp Coordinator & Research Coordinator. Since then, he has been coming up to speed with CCB's research program and the general operations of Ghanzi Camp, and so far he has contributed tremendously to the development of the Ghanzi camp and research work. He has also attended several meetings and workshops on behalf of CCB in places such as Maun, Ghanzi and Gaborone. He is proving to be a value added member of the CCB team.



# Community Outreach Farmers Workshops & Community Support

Serowe Department of Wildlife and National Parks (DWNP) and CCB have come a long way when it comes to conducting training workshops on predator conservation, reducing conflict and livestock losses, as well as livestock management and knowledge of predator species and their behaviour. CCB was invited by Serowe DWNP for a two day presentation, 11-12th September 2013 on assessing and reducing livestock losses, including care of livestock guarding dogs to reduce predator conflict. Farmers and herders came from the villages of Maokatuma, Diloru, Mogapi, Mogapinyana and Kgagodi. It was a well attended workshop with about 70 participants and very interactive. Other workshops took place in Tlokweng, Pallaroad, Khakhea, Sekoma and a farmer's fair where CCB engaged farmers on issues of reducing livestock losses and predator conflict. There was also a community service day in Mabutsane which CCB attended in November, as well as the Southern District Beef Farmers' Association Field Day under the theme of 'Challenges Facing Women Farmers'. This is an annual activity through which the members of the association and its stakeholders gather together to reflect on their successes, as well as tackling the challenges that they faced during the course of the year.



*CCB in Tlokweng discussing how to reduce livestock losses and predator conflicts with local farmers, at the invite of Tlokweng Farmers Association.*

In our agreement with the Department of Wildlife and National Parks (DWNP), Cheetah Conservation Botswana (CCB) was contracted to carry out construction of 26 predator proof kraals distributed in 13 villages forming the project areas of Okavango, Boteti and Chobe. Each village was allocated 2 kraals in this phase. The distribution of kraals was as follows: Boteti 4, Okavango 10 and Chobe 12 and all the 26 kraals were successfully completed within the stipulated time frame. At the completion of kraals in each focal area, farmers were consulted at their respective villages and cattle posts and re-orientation was conducted on the training and care of Livestock guarding dogs (LSGDs). Puppy placement will take place in March 2014 with 38 recipient farmers across the project area.



*CCB with Serowe DWNP and local farmers during the workshop in Pallaroad.*



*A predator proof sample kraal built for one beneficiary at Moreomaoto in the Boteti region for the DWNP project.*

Community outreach officers attended to cheetah problems at Ghanzi, D'kar, Charleshill and Karakubis. Farmers were advised to improve husbandry methods, improve their kraals and introduce livestock guarding dogs. At one farm in Ghanzi, camera traps were set to gain insights in to the cheetah habits. Site visits are available to any farmers requesting support from CCB.



## Community Outreach Demo Farm & New Puppy Training Program

The CCB goat herd and guarding dogs are doing well. Recently CCB placed three trained livestock guarding puppies to farmers around Ghanzi. All puppies were sterilised and vaccinated before giving them to the farmers. The puppies are currently doing well and stay with their herds full time, they will be monitored by CCB for at least 2 years. Tau, the first livestock guarding dog (LSGD) in Ghanzi at our demonstration farm has been with CCB from the beginning of the project in 2010. Mid July 2013, we had to say goodbye to him due to an injury and introduced Junior Tau as our new LSGD. Tau Jnr worked alongside Phiri, the elder, in protecting the CCB herd as usual. Ditiro Mmolotsi, as the herd manager worked around the clock to make sure that Tau Jnr was trained and adapted well in his new role. Unfortunately, the last quarter of 2013 brought an outbreak of rabies at our camp. Any animals not already vaccinated were treated to prevent the spread of the disease. Sadly, Tau Jnr caught rabies and had to be put down... a young life cut short as he showed great potential as a livestock guarding dog. Rabies can be more prevalent during the times of drought that we were experiencing in late 2013, even animals who have been vaccinated can succumb to the disease if the vaccine did not have the required effects. We are experiencing the challenges that face Botswana's farmers and as such this brings us closer to a true understanding of the trials and tribulations that underpin human wildlife conflict.



*Some of the cute puppies residing at our camp in Ghanzi.*



*Tau at work with CCB goatherd.*



*Tau Junior basking in the sun with CCB goatherd at our camp in Ghanzi.*



## Education

### School Talks & Bush Camps

School presentations continue to stress the importance of predators in a healthy ecosystem, besides strengthening the students' understanding of predator behaviour. Schools visited includes Northside Primary School, Nanogang Junior School Environmental Club, Limkokwing University in Botswana for Tourism class, St Josephs Primary School standard 4 and 5 students, Experience in International Living volunteers from USA, volunteers, Chamabona Junior School, Ntlhantlhe Primary School, Mogobane Primary School and Kumakwane Junior School.

Two bush camps took place at CCB Ghanzi camp at the Tiisano Education Centre, for Ramotswa Brigade on the 14 – 18th August and Kabakae Primary School Environmental Education Club on the 18th to 20th October 2013. The objectives were to motivate and inspire students and teachers to develop positive attitudes towards the environment and conservation issues. The lessons were based on wildlife conservation, human wildlife conflict, waste management, water conservation, the importance of birds in the ecosystem and sustainable livestock management practices.



*Keneilwe at Nanogang CJSS' environmental fair exhibiting CCB resources and engaging learners in conservation issues.*



*Kabakae students enjoying the pool after a class of environment and conservation at Tiisano Education camp in Ghanzi.*

CCB education officer, Keneilwe Mathaba, attended the Moshupa Sub-region Environmental Education Fair on the 6th July 2013. The fair was for primary, junior and senior schools. The day activities included poetry and music, quizzes, debates, and project exhibitions. She also attended the Southern Region Environmental Fair in Gaborone on the 13th of July 2013. The event was organized by the Association of Environmental Clubs of Botswana in Gaborone under the theme "Indigenous knowledge: Key to Poverty Eradication and Sustainability" and Somarelang Tikologo Sponsored Walk and Litter Picking Campaign in Gaborone on the 31st of August 2013. The theme for this event was "Save Water, Save Electricity: Be an Active Citizen of the Globe".

As per agreement of NEEC (National Environmental Education Committee) members, environmental educators are supposed to take on a "change project" at their area of choice. CCB education officer, Keneilwe Mathaba, in 2012, chose to work with Lekgolobotlo Primary School in the Ngwaketse District to start an environmental club and other activities. To commence the project, she first held a bush camp for the school in Ghanzi to introduce them to predator conservation, ecology and to equip them with the necessary knowledge and information to run the club. She has been making several trips to the school to mark the progress. Assigned a supervisor by NEEC committee, Keneilwe had her first SADC REEP Change Project Assessment at the school by NEEC supervisor, Ms Doreen McColaugh and the project is on track. Keneilwe also attended the Environmental Education Association of Southern Africa Conference (EEASA) from



# Education Workshops & Collaborations

the 10th to 12th September 2013 in Malawi, Lilongwe, under the theme of Green Economy: Insights and Perspectives for Environmental Education in Southern Africa. The Botswana delegation included the Department of Environmental Affairs, Department of Wildlife and National Parks, Department of Curriculum Development and Evaluation, Birdlife Botswana, Tshole Trust, Kalahari Conservation Society and Mokolodi Nature Reserve.

The Department of Environmental Affairs (DEA) under its National Environmental Education Committee (NEEC), of which CCB is a member, has developed a National Environmental Education Strategy and Action Plan (NEESAP). They held their workshop on the 6 – 7th November 2013 to further discuss the contributions to NEESAP made by member organisations and a way forward on the development and implementations of activities outlined on the NEESAP. CCB has contributed to the plans to be implemented and the various stakeholders are supposed to report back on their activities by February 2014.



*Keneilwe engaging with a Kenyan teacher at EEASA Conference that was held in Lilongwe, Malawi.*



*Ramotswa Brigade students staged presentations for fellow students on environmental issues during their bush camp in Ghanzi.*



## Public Relations Botswana Consumer Fair

CCB was at the 2013 Botswana Consumer Trade Fair with a mission of raising awareness for predator conservation and showcase the services we provide to farmers and schools. As one of the biggest fairs in Botswana, 2013 was not an exception, as it also pulled in visitors and exhibitors from throughout Southern Africa. The fair was filled with fun, while exhibitors shared information and sold their products and services to the public. CCB took position three on the category of NGO's and the fair was attended by Administration officer, Ms. Boitumelo Mokgosi, Public Relations officer, Ms. Connie Sebati and Research officer, Mr. Phale Phale.



*CCB stall at the 2013 Botswana Consumer Trade fair where we took position 3 on the category of NGO's.*

The Public Relations Unit in the Ministry of Agriculture did a video clip of the Livestock Guarding Dog Programme at CCB Ghanzi in August 2013, which was aired on Botswana Television during the same month. CCB received a complimentary copy for its archives.

The Botswana Civil Society Climate Change Coalition was formed in November 2012 with a committee and representation from academia, NGO's, Botswana Council of Churches (BCC), Indigenous People and Tribal Authorities. Botswana Council of Non- Governmental Organisations (BOCONGO) serves as the Secretariat of the Coalition so as to ensure a wider participation of other NGO's especially its Environment and Agriculture Sector of which CCB is a member. The Food Security and Climate Change workshops were held on the 17th- 18th of October 2013 in Gaborone, and 28th-29th November 2013 in Palapye respectively. The workshops were facilitated by BCC and BOCONGO. CCB did invited some of the livestock guarding dog network members to come and share their small stock farming experiences in times of climate change with participants at both workshops.



*Mr. Henry Camm (in blue and white jacket), is a keen livestock guarding dog user, smiling during the proceedings of the food security workshop, where he shared his farming experiences.*

The objectives were to address climate change and farming issues, to help communities identify their vulnerabilities and develop coping mechanisms or resilience strategies and to create a platform for Non Governmental Organisations (NGO's), Community Based Organisations (CBO's), community leaders, and farming communities to develop sustainable adaptation strategies for their communities. The workshop was quite successful and we hope to become a part of such initiatives so as to contribute in developing Botswana's environment and agricultural sector.



## Public Relations *PACJA Workshop and Painted Dog Visit*

The Pan African Climate Justice Alliance (PACJA) held a workshop from the 13-14 October 2013 in Gaborone, as build up to the African Ministerial Conference on Environment (AMCEN) meeting which is held annually. The workshop crafted the civil society position to the Governments. The workshop sought to deepen and broaden common understanding, analysis and advocacies on climate change and equity among organizations and networks, as well as developing, refining and reaching agreements on strategies, medium term objectives and plans as we move towards COP19, Warsaw, Poland in November 2013 and beyond. It was attended by Douglas Thamage, CCB's Programs Manager.

CCB's Program Manager, Education Officer and Public Relations Officer, Douglas Thamage, Keneilwe Mathaba and Connie Sebati, were in Zimbabwe for a benchmarking trip at the Painted Dog Conservation (PDC) from 11-14 November 2013. Wildlife Conservation Network (WCN) supported the visit as CCB and PDC are both WCN partners. The aim of the visit was to learn, share ideas and experiences with the implementation of bush camp activities and community outreach activities at PDC.

The objective of this part of PDC's extensive education program is to teach local children conservation concepts, an understanding of ecological relationships, the value of biodiversity, an appreciation of Painted Dogs and the role they play in ecosystems, and to inspire an emotional attachment to the beauty and complexity of nature. The outcome was to come back with ideas on better approaches and tools to incorporate into CCB programs.



*Botswana delegation at the PACJA-AMCEN workshop in Gaborone, CCB was in attendance.*



*A moment at a primary school in Zimbabwe with PDC, CCB and Ewaso Lion project.*



*Ecology study is one of the key components of a bush camp at PDC.*



## Other Activities

### Staff Training and Volunteers

Community Coordinator, Mr Morulaganyi Kokole is pursuing a Masters Degree in Community Conservation through University of South Africa supported by the Sydney Byers Scholarship through Wildlife Conservation Network. He is currently being supervised by Dr Rutina who is based at Okavango Research Institute in Maun.

CCB is very happy to have had Valerie Howe from Australia and Marie-Soleil Le Houillier from Canada joining us at our Ghanzi Field Camp for the month of October 2013. Their skills helped our team immensely and we had them helping us track cheetahs in the bush, help sort our research data, identifying cheetah photos for our population studies, and many other things. They had the opportunity of meeting some of the local San Bushman and learning about life in the Kalahari. We are so thankful that they have gave their time to come and help us on our projects.

Our year end meeting and party were held at our Ghanzi research and education camp. This time around we were joined by 2 great individuals, Manel and Olga from Spain who are project management consultants by profession and had kindly offered to assist CCB with our strategic and annual planning. It was a very beneficial process for all staff members and we hope to continue to improve in our planning and implementation thanks to what we have learnt from them. The end of year party was held afterwards at Thakadu restaurant in Ghanzi and we had fun through the night.



*Volunteers, Valerie and Marie-Soleil had the opportunity to visit the San Bushman while with us in Ghanzi.*



*Valerie Howe giving a prize to a student during a bush camp at Tiisano in Ghanzi.*

*Our end of year planning meeting went well in Ghanzi, together with PIP project management consultants.*





## Thank You to...

As ever, it is the constant interest, encouragement and support of all our donors here and around the world who's contributions fuel our efforts here on the ground. Special thanks to everyone who continues to support us in these growing times for CCB and most recently to:

### ORGANISATIONS

Wildlife Conservation Network  
National Geographic Big Cat Initiative  
Prince Bernard Nature Fund  
Disney Wildlife Conservation Fund  
Rufford Foundation  
Houston Zoo  
Predator Conservation Trust  
St Louis Zoo  
Toledo Zoo  
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Randall Yee

### VOLUNTEERS

Marie-Soleil Le Houillier  
Valerie Howe



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