



ANNUAL REPORT 2013

# Letter from the Chairman

The past year has been one of consolidation combined with intense planning and preparation for future projects, particularly the Namaqualand research project, our most extensive and challenging research project yet.

The Cape Leopard Trust (CLT) continues to achieve excellent results and annually participates in conferences and publishing of academic papers. I am pleased to report continuing growth in stature in scientific and conservation circles and it is gratifying to see our good work being more and more recognized internationally. Our research projects are visited by increasing numbers of international students and our Namaqualand project is headed up by wildlife ecologists from Canada. This past year Quinton Martins (CEO) visited Saudi Arabia on invitation from that government, to advise them on their Arabian leopard project. Recently he conducted a leopard capture and collaring project in Malawi.

Our organisation's aim and role in reducing human-predator conflict and promoting animal welfare while studying the spatial and behavioural ecology of select predators is of national importance, while our education camps, which have been so successful, are vital and powerful tools for developing understanding and appreciation of our natural resources amongst our youth. By teaching children the importance of conservation practices and its benefits for wildlife, we can activate in them the desire to protect the environment.

Our administrative functioning has improved significantly over the past year, particularly our financial management systems with a recently installed accounting information system allowing us immediate access to a complete analysis of the Trust's financial affairs on a daily basis. This is a major improvement, not just for our secretarial purposes and management efficiency, but also for enhancing our ability to ensure statutory compliance and fulfilment of our fiduciary responsibilities.

The Trust's finances are in good health, thanks to the generous contributions from our dedicated sponsors and supporters, who continue to ensure that we remain a sustainable conservation organisation with sound foundations. We owe them all a lot of gratitude. We strive to utilize funding with utmost discretion and can with confidence assure our benefactors that funding entrusted to us is always put to proper use towards its designated objectives.

I would like to thank CLT personnel and research associates for their continued hard work and enthusiasm. Predator research, especially, requires a special dedication from individuals who are prepared to forfeit fixed working routines, seven days of the week. It certainly is not for those who demand set working hours and regulation free time.

Also, my thanks and appreciation to my fellow trustees, who are always available to provide support and counsel. It is indeed a great privilege for me to be associated with all of them.

Next year will be our 10th anniversary and we are looking forward to its challenges and opportunities with great excitement. It will be a momentous year given the scope and reach of the research and education projects which we have lined up.

Johan van der Westhuizen  
Chairman

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## Letter from the CEO



The Cape Leopard Trust is a project with a humble background. It is a project that began with very few resources but a lot of heart and a great vision. I look back now and remember the overwhelming emotion I felt when receiving support from people who believed in our vision and how energising this was. Somehow, as the project has grown, it seems almost as if that sensation should have been diluted along the way. Well, going into our 10th year, I am thankful and relieved to say that the spark is still there, and the drive to make a difference stronger, but more focused. We have managed to attract the *crème de la crème* of the environmental and scientific community to work with us, while maintaining that down-to-earth, “real” attitude.

As for “real”, The Cape Leopard Trust has tirelessly been working towards finding solutions to the real predator conflict problem small livestock farmers in the Karoo and Namaqualand are facing today. It has taken a few years of hard work and many setbacks to reach the point where one of our key projects, the Predator Ecology And Co-existence (PEACE) project is ready to roll. Backed by proud and trusting funders, even when the going was not so good, and in partnership with a leading conservation organisation, this project is destined to deliver the much needed research essential towards solving farmer-predator conflict. We are also going into a new year where our Environmental Education Project, running at capacity, will expand and develop a full programme in the Cape Town and Boland region where we have already been conducting such inspiring and crucial research.

Our team hopes that this year’s annual report is a genuine and worthy showcase of the hard work done over the course of the year. Every effort has been made to maximise outputs in the most economical way. Moves to become more sustainable have been made by bringing alternative forms of income to the fore, while ensuring the integrity we hold so valuable has not been compromised at all. Apart from the extensive network of partnerships we have built up, we have successfully begun developing research working groups with collaborators at local and international universities. This fits in perfectly with our short—midterm vision of minimising the Trust’s administrative burden, while expanding our footprint through students and interns, providing them with unrivalled opportunities and training.

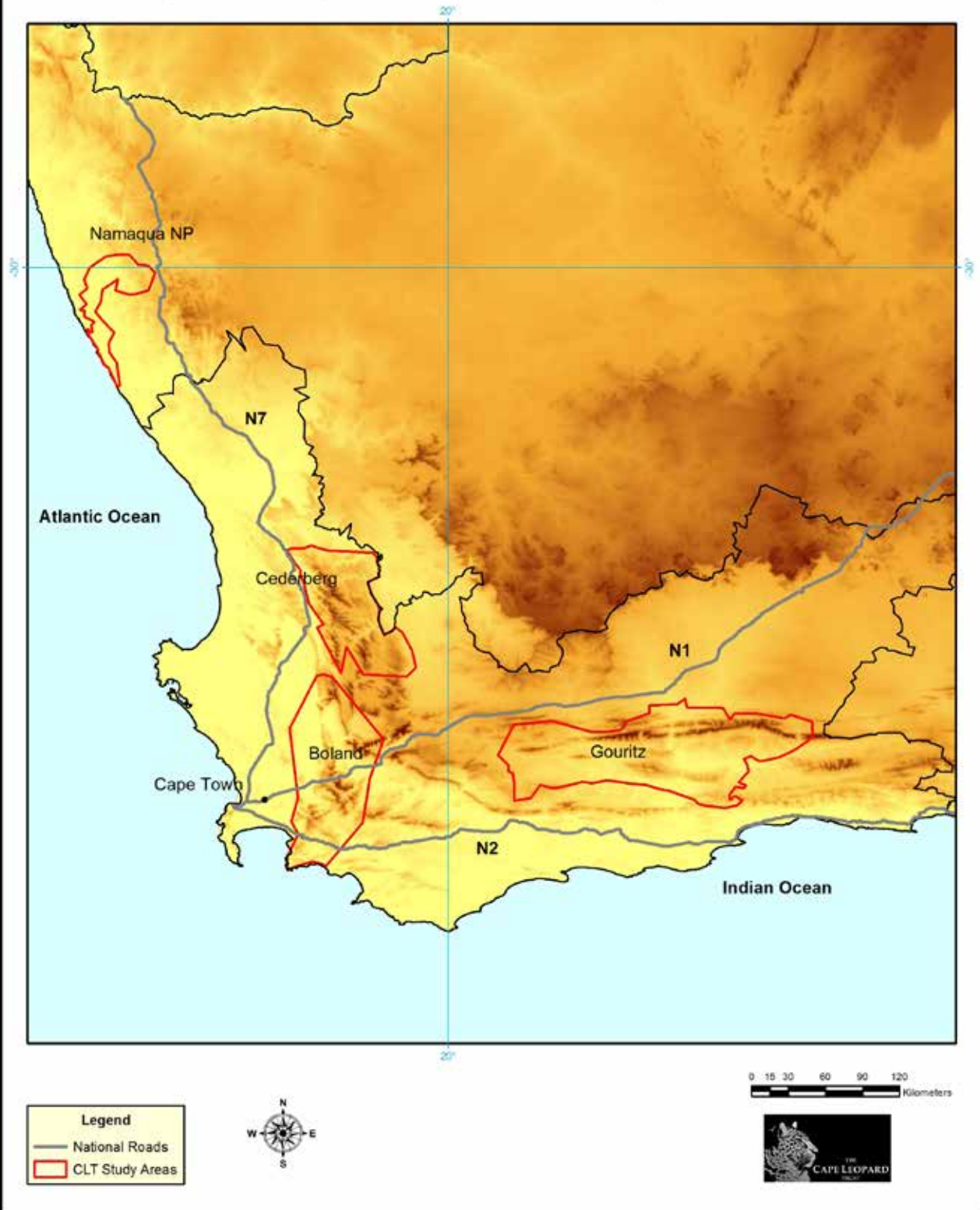
Lastly, I wish to thank my dedicated team of staff and students for their commitment to the Cape Leopard Trust and their respective projects. I also wish to extend my gratitude to my fellow trustees who so willingly contribute their time, knowledge and support to ensure the wellbeing of this project. And finally, I wish to acknowledge and thank all of our project donors for their generous and valuable contributions to our work.

A handwritten signature in black ink, appearing to read 'Q. Martins', with a long, sweeping horizontal line extending to the right.

Dr Quinton Martins  
CEO  
The Cape Leopard Trust

# Project Locations

## Cape Leopard Trust Project Areas



# The Cape Leopard Trust Team

## Board of Trustees

Johan van der Westhuizen (Chairman)  
Professor Chris Henshilwood  
Dr William Horsnell  
Peter Lloyd  
Dr Ian McCallum  
David Knott  
Dr Quinton Martins

## Staff



Quinton Martins  
CEO



Helen Turnbull  
Communications & Project Support



Anita Meyer  
Boland Project Coordinator



Elizabeth Martins  
Education Project Coordinator



Jeannie Hayward  
Boland Project Researcher



Matthew Dowling  
Environmental Educator  
(till Sept 2013)



Bogdan Cristescu  
PEACE Project Coordinator



Hadley-John Lyners  
Environmental Educator  
(from Oct 2013)



Kristine Teichman  
PEACE Project Researcher



Annelie Veloen  
Camp cleaner

## Interns

Wonga Nonqotho  
Callum Clark  
Suné Rossouw

## Students

Corlé Jansen  
Arné Stander

# From the Den

## News from the Den

Helen Turnbull joined the Cape Leopard Trust as Communications and Project co-ordinator in January. Her role was to make sure that the 'engine room' or business side of the trust runs smoothly, as well as to monitor the individual project sites. We had identified the importance of improving the administrative functioning of the trust, and in that respect Helen has consolidated and streamlined the various processes necessary to achieve this.

We have also made a point of boosting our public image and profile. For example, for the first time the Cape Leopard Trust has been registered as one of the listed charities for the Pick 'n Pay Cape Argus Cycle Tour. We have also won the bid to be an associate charity partnership with the 2014 ABSA Cape Epic. It has certainly been a case of hitting the ground running when it comes to learning about cycling paraphernalia, the nuances of tandems and the beauty of lycra. We are pleased to say that our Argus cycle team of 21 riders is fully allocated, and current negotiations with riders for our allocated team entries for the ABSA Cape Epic are underway.

The charity working environment is undoubtedly getting tougher, and these days there are many credible wildlife causes seeking funding, so promotion of the CLT brand, awareness raising and submission of new funding applications, is key. Another recent development aiding the sustainability of the project is the launch of the Boland Wildlife of the Winelands experience. Even though people on the operational side may feel that research work has little in the way of glamour to offer, these conservation days are proving very popular and add immense value to our project, giving outsiders an insight into on-the-ground research and the realities of what researchers endure in order to glean the data used for conservation purposes. The feedback from the trips so far has been very positive, and at the end of each successful day both local people and visitors to the Cape, walk away with a better understanding of the dedication and determination conservation needs if it is to make a real difference.





### Cederberg Predator Research

We have seen a dramatic increase in research activities in the Cederberg Mountains with the involvement of Dr Alison Leslie from Stellenbosch University. Progress has been made with trapping of caracals and leopards, but a need for students with formalised projects is required to boost results from our study areas. Thus it came to be that Alison took on two 4th year Conservation Ecology students to be co-supervised by Quinton on leopard-related projects in the Cederberg. One project aim was to re-survey the Cederberg using camera traps to (i) compare leopard densities from camera surveys completed in 2007 and published in Quinton's PhD (2010); and (ii) determine leopard densities in the Fynbos component of the Cederberg using camera traps comparing with collar data from 2010. Results will be combined with Quinton's PhD results for publication in a suitable peer-reviewed scientific journal. Preliminary results of this study are presented below. Lastly, Quinton managed to find time to do some leopard trapping of his own, collaring 3 leopards contributing to his study on their breeding and dispersal behaviour.

### 2013 Research



Infra-red camera traps were used as the main research tool for the leopard and prey survey studies undertaken by the two students. The cameras, dedicated "24hr observers", were set-up to run for approximately four months in both summer and winter. Two cameras were placed at each camera site for leopard identification purposes, with a total of twelve Fynbos sites and ten Karoo sites each within a 50 km<sup>2</sup> grid – a measure based on the minimum home range of a female leopard here. A total of forty-three Cuddeback™ cameras were used to ensure proper identification of photographed leopards.





**Difference in leopard *Panthera pardus* densities in the Cederberg, South Africa as compared between the Fynbos and Karoo biome – by Corle Jansen (4th Year Conservation Ecology Stellenbosch University)**

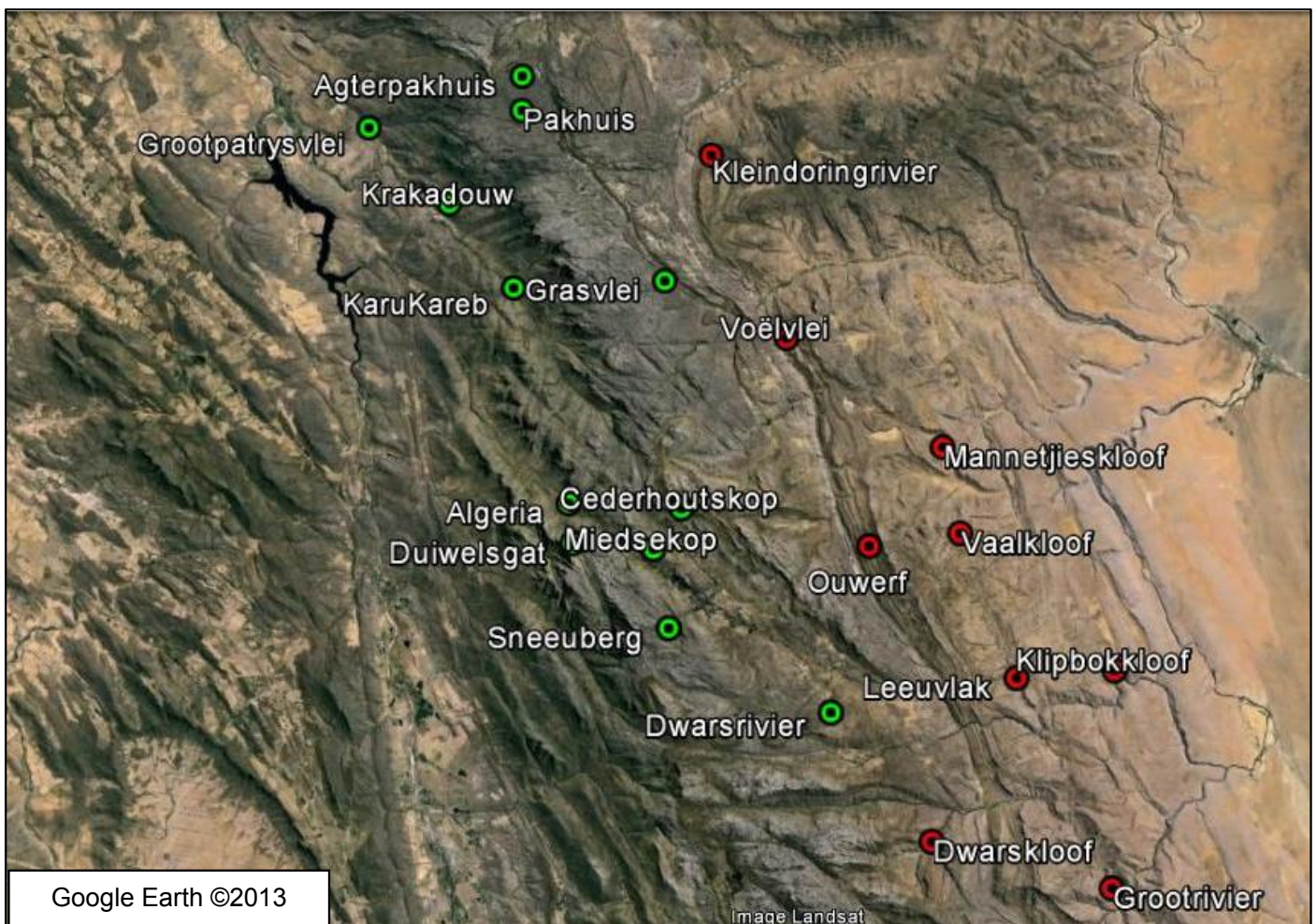
A combined total of 7691 trap-nights were recorded (4472 summer; 3219 winter) resulting in 226 leopard photographs. Of these, 104 were considered unique leopard photographic capture events (57 summer; 47 winter and 51 Karoo; 53 Fynbos), representing an overall capture success of 1.35 individuals/100 trap-nights.

*Camera trapping effort and captures of leopards in the Cederberg*

Survey	Trap-nights	Leopard captures	Capture/100 trap-nights	Capture probability
Karoo Summer	1705	31	1.82	0.43
Karoo Winter	1514	20	1.32	0.21
Fynbos Summer	2186	26	1.19	0.18
Fynbos Winter	2286	27	1.18	0.15

The camera trap photographs all have a time and date stamp providing an opportunity to determine patterns in leopard activity. Leopards appear significantly more nocturnal with 69% of captures being at night and 31% in the day. When looking at seasonal differences, as with the previous study, no significant differences were found between summer and winter. In summer a peak in activity was observed after 0:00 and between 02:00 and 05:00 just before sunrise. In winter there was a peak in activity just after sunrise and after sunset, with a sudden drop in activity observed just before sunrise. Leopard densities were calculated by dividing the number of leopards into the area surveyed. Naturally, one would expect that leopards photographed are more than likely to traverse beyond these boundaries created – so researchers devise a means to calculate

a buffer strip to add to the core survey area. These buffers can vary a lot depending on the methods used, however, it was interesting to see that the densities estimated from the recent study were similar, if not a little higher than recorded in 2010. For leopards in the Karoo, densities were approximately 1 leopard/100 km<sup>2</sup>; while Fynbos leopards exhibited densities of about 2.5 leopards/100 km<sup>2</sup>. We are interested to see how these densities might change over time with fluctuations in prey densities – for example anecdotal observations suggest dassie populations have increased significantly since the first study was done, possibly leading to an increase in leopard densities. Implementation of robust prey surveys beginning next year may manage to resolve this issue.



Cederberg camera trapping survey sites - green dots indicate cameras located in Fynbos; red dots indicate cameras located in the Karoo



Floods, snow and fire - the extremes of camera trapping in the Cederberg

## Leopard captures in the Cederberg

Quinton has been trying to obtain more data on breeding and dispersal behaviour of leopards. We were rewarded with three leopard captures during the 3 week trapping period. One female, one male and one sub-adult male were collared. The male was an exceptionally large specimen weighing 57kg – over 20kg heavier than the average weight for leopards in the Fynbos part of the Cape mountains. Iridium satellite collars were being used so as to allow for remote download of all data, giving us almost real-time monitoring. Unfortunately, two of the collar communication modules failed within the first month. The sub-adult male had



*'Big Boy' just after a successful darting*

an expandable collar fitted which he promptly removed. The only positive news to end with is the possibility that the GPS component on the two remaining collars is still working, allowing for a glimmer of hope that when we remove the collars early next year, we will have gained sufficient data on the leopard movement.

## Cederberg 2014

Five research projects are planned for the Cederberg in 2014 – all linked to the University of Stellenbosch. Four 4th Year student projects will include population density studies on dassies, klipspringers and rodents. Not entirely related to leopards but a predator none-the-less, we will also have a student look at owl diet using owl pellet content as an indicator. The fifth project will see us conclude the research on caracal ecology as an MSc project. Exciting times ahead with our research database growing.



## The Boland Leopard Project

The Cape Leopard Trust's Boland Project was established in 2010 to study the Cape leopard population along this mountain chain, from the Kogelberg Biosphere in the south to the Groot Winterhoek Wilderness in the north. The project began as a 2 year camera trap survey estimating leopard densities combined with diversity, relative abundance and distribution of mammals larger than small rodents. Results of this study highlighted the need for further research on the Cape leopard population in the Boland area. Consequently, Jeannie Hayward enrolled for her PhD (UCT) on the spatial and behavioural ecology of the Boland leopards using GPS radio collars. The main aim of her project is to investigate the habitat use and movement patterns of leopards in the fragmented, human-modified environment of the Boland mountains. Anita Meyer is furthering the research by investigating diet of Boland leopards using scat (faeces) analyses.



The Cape leopard is an iconic and globally revered species, with an almost mythical status in the Western Cape. Yet, most people are still unaware of their existence. The Boland Project has managed to generate significant public awareness, highlighting the plight of this elusive predator. We have used our camera trapping survey data and GPS collar data in public presentations, newspapers, websites, magazines and social media platforms to educate the broader community living on the doorstep of the leopard. Our efforts are crucial in changing perceptions and minimising threats.



### Leopard collaring in the Boland

The Boland mountains represent a significant portion of the last remaining habitat suitable for leopards in the Western Cape; however, the area is completely surrounded by human presence – towns, roads, and farms. Although the core mountain reserves remain preserved, edges (or fringe habitat) important to leopard survival, are heavily impacted by habitat perturbation. Although leopard studies using GPS collars have been carried out in the Cederberg Wilderness and Gouritz corridor of the Western Cape, the Boland ecosystem differs in many respects from these regions. The role of anthropogenic factors influencing leopards and their ecosystem is one such difference being investigated here.

GPS radio-collar data are essential for investigating home range size, detailed habitat use and fine-scale movement patterns for far-ranging predators in mountainous terrain. However, due to their large home ranges and elusive nature, capturing leopards in the Cape mountains is an immensely time- and labour-intensive task. Notwithstanding, we have been successful with six territorial adult male leopards, one adult female and one dispersing male having been captured and collared since trapping began. Although for the purposes of this study the focus is on adult



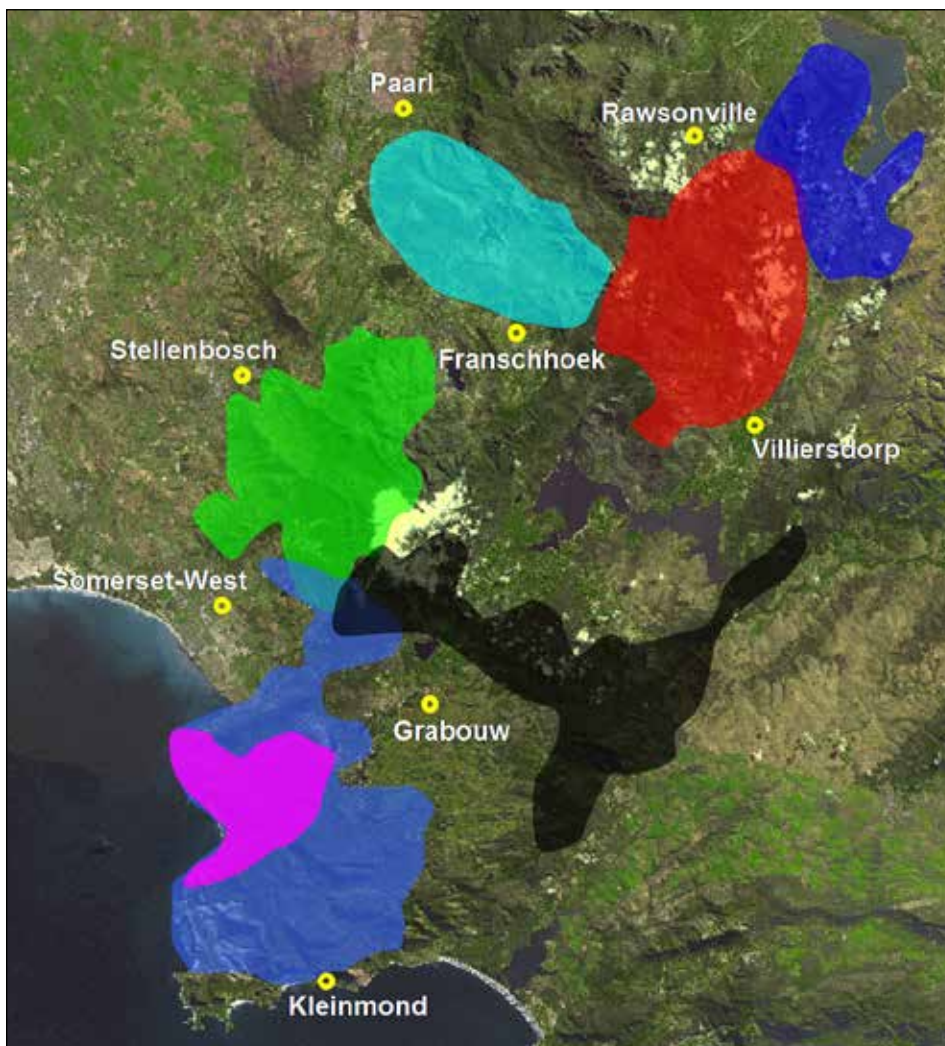
*Jeannie collaring a male leopard*

territorial male leopard behaviour, females are also collared, along with dispersing sub-adults or adults. The latter often require modified collars to account for neck growth with aging.

The young adult male collared was one caught by a farmer in a cage trap. We were called in to mitigate the conflict situation, and in the process were able to use new Iridium satellite data transferring GPS collar equipment to monitor the movement of this younger animal. This case highlights the threat of direct persecution of predators by farmers in retaliation to livestock depredation. Although the Boland mountains are mainly surrounded by urban settlements and cultivated land rather than large-scale livestock farms, there are a number of areas where small-scale livestock farming is practised. Leopards are frequently blamed for livestock losses without proper investigation. Real offenders often turn out to be feral dogs, caracal, livestock thieves or natural causes such as illness. The collar data of this young male mirror that of a sub-adult male collared in the Cederberg demonstrating that non-territorial leopards are utilising sub-optimal fringe habitat to keep a low profile until they are strong enough to successfully acquire and defend a territory of their own.

As with previous Cape Leopard Trust studies, GPS collar data are used to locate leopard feeding sites. The clusters representing 12 or more continuous hours are identified and visited by the research team to search for signs of a kill, which could include remains such as hair, gut, bones and leopard scat. This is arguably one of the toughest (and most fun!) parts of leopard research in the fynbos. It is rough going, with the researchers more

often than not ending up on all fours, literally leopard-crawling through an impenetrable wall of prickly, sticky vegetation. As Cape leopard prey is mostly relatively small they tend to entirely consume their prey, leaving only a few slivers of bone, the stomach contents and some hair. To date, 80 feeding sites have been investigated and prey remains have been found at 60 of these. The prey remains found thus far mainly consist of grysbok and porcupine, with baboon also taken fairly frequently by certain individuals. This is an interesting contrast to the Cederberg where klipspringer and dassie are the main prey items, and baboon hardly being preyed on at all. To be comparable, further dietary investigation is being conducted using faecal or scat analysis.



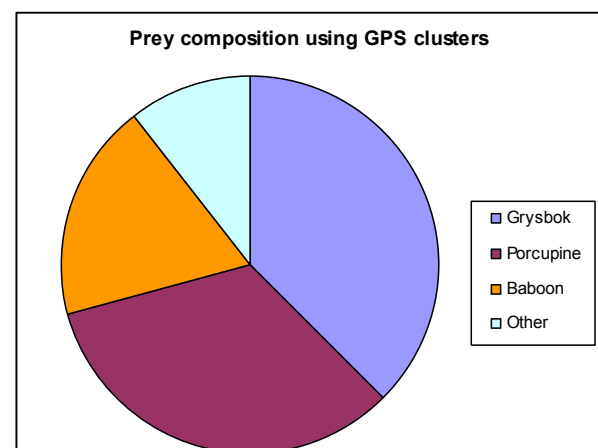
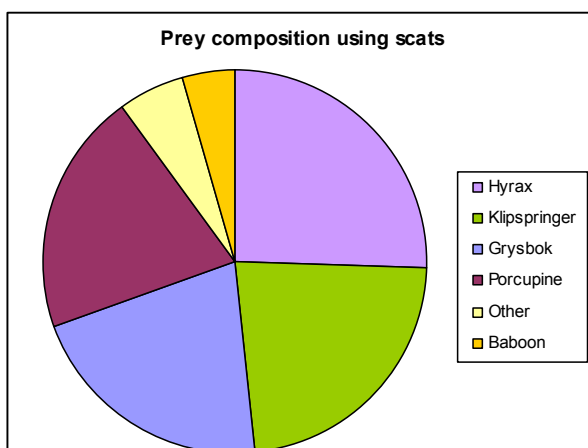
*Map showing home ranges of collared leopards in the Boland study area*

## Boland leopard diet determination using scats

Leopard diet is highly variable with composition largely reflecting the local and temporal availability of different prey species *in situ*. Leopard diet has recently been studied in the Cederberg Wilderness (2010), Gamka Mountains (2010 & 2013) and the Baviaanskloof region (2007), but little data exist for the Boland region apart from a study done in 1986. One of the most commonly used methods to characterise carnivore diet has been faecal analysis. Leopards ingest the hair, bones and often hoofs, nails, and teeth of their prey. Since mammal hair have distinctive cross-sectional shapes and unique scale patterns on the cuticle (or outer layer), it is possible to identify a species from its hair by looking at the scale pattern and cross-sectional shape with a microscope. The CLT Boland Project team collects leopard scats in the Boland mountains during their fieldwork. By identifying the hair and other fragments found in the collected scats to species level, the prey composition of leopards in the Boland is being investigated.

Preliminary faecal data in the Boland indicate that the four prey species occurring most frequently, and in roughly equal proportions, are rock hyrax, klipspringer, Cape grysbok and porcupine (in the Cederberg klipspringer and hyrax formed almost 80% of the diet). Baboon does not seem to form a major component of leopard diet, but the numbers are slightly higher than for the Cederberg, Gamka and Baviaanskloof areas. Possible reasons for the apparent discrepancies between the results of the GPS cluster and scat analyses will be established once the research is completed.

Studying the diet (prey composition and preference) of an apex predator such as the Cape leopard is important to safeguard the species' continued survival. This diet study will provide valuable baseline data for further research and management strategies. The potential of expanding this study to include a comparison between male and female leopard diet, through genetic sexing of individual scat samples, is being explored.



## Looking ahead

The CLT Boland Project is a long-term leopard monitoring programme aimed at assessing population viability, while maintaining public interest ensuring continued education and awareness value. The ultimate goal of the research is to inform conservation management decisions to ensure the conservation of the Cape leopard and its habitat. Ultimately, through collaboration with national, provincial and private conservation bodies, the research findings will be incorporated into systematic biodiversity planning frameworks, used toward conservation stewardship action (see also section on the Boland Leopard Sanctuary).



## Background

The Predator Ecology And Co-Existence (PEACE) experiment has been in the making since 2007 when a preliminary camera trap survey was initiated by The Cape Leopard Trust in Namaqualand to assess leopard presence and wildlife diversity. Farmers in this region experience considerable livestock losses to predators and, as expected, the results showed multiple predators inhabiting the area including caracal, black-backed jackal and leopard.

The Cape Leopard Trust's interest in finding solutions to wildlife-human conflict led to the idea of Eco-Herders, a position whereby a trained person deters predators from livestock while simultaneously collecting ecological data. Conservation South Africa (CSA) then implemented a pilot study in partnership with the CLT to assess the effectiveness of Eco-Herders in minimizing livestock losses on communal farmlands with goats. The success of this work resulted in the development of the PEACE project, a study that will rigorously test non-lethal mitigation measures to protect livestock while maintaining biological diversity, using Eco-Herders and/or livestock guardian dogs, on farmlands near Namaqua National Park.

Bogdan Cristescu and Kristine Teichman, wildlife ecologists from Canada, have been working with Quinton Martins since 2011 on designing a scientific approach for this project. In May 2013, the two travelled to South Africa to join our research team. Given the scope of the project, they will be joined in Namaqualand by an additional graduate student.

## Project approach

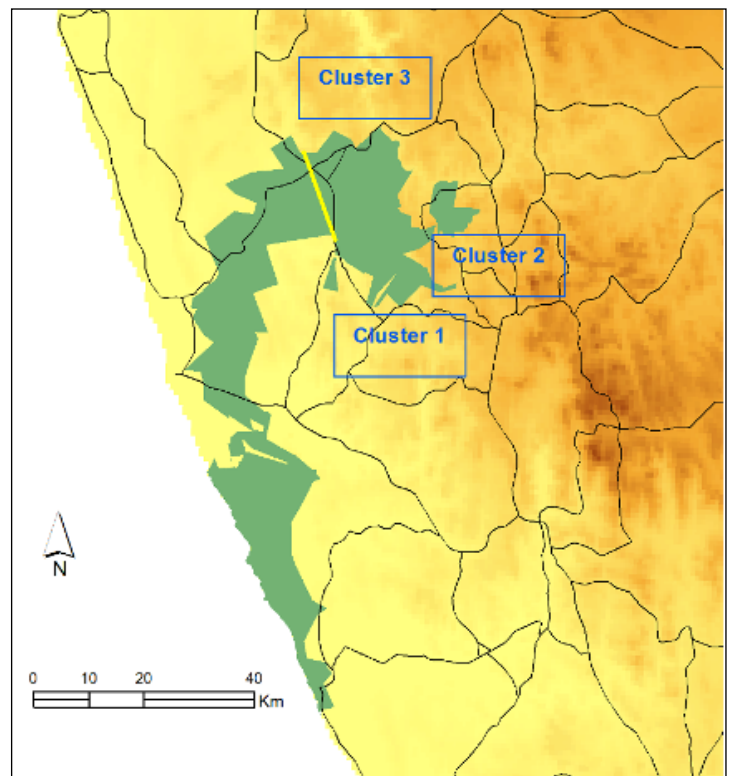
The study is framed as a Before-After-Control Impact design, where the 'Impact' will be the introduction of depredation mitigation measures on farmland clusters near Namaqua National Park (see attached Figure). During year 1, the team will study predator ecology under current livestock management practices. In year 2,





Eco-Herders and Anatolian livestock guardian dogs will be introduced in one farm cluster to protect small livestock (sheep and goats). A second farm cluster will include Anatolian livestock guardian dogs only while a third farming area will act as a control site. Predator ranging patterns and diet as well as livestock losses will be compared before and after treatment implementation to test the effectiveness and economic viability of the Eco-Herders and/or Anatolian Dogs compared to current farm practices.

From January 2014, caracals, jackals and leopards will be fitted with GPS radio-collars to estimate feeding habits and movements. 100 infra-red camera traps will be used in conjunction with GPS radio-collar data to estimate predator density on farmland and Namaqua National Park. Cameras will also allow researchers to determine distribution, diversity and densities of prey in the study area. Because predator diet includes rodents and other small animals, small mammal trapping will be carried out to estimate smaller prey availability, while vegetation surveys will be carried out with assistance from CSA to assess vegetation patterns in areas with varying predator density.



*Overview of study area in Namaqualand. Darkening shades of brown represent increasing elevation. Clusters 1-3 are potential farming clusters where the team would like to focus data collection efforts, in addition to Namaqua National Park (green shading).*

## Partnerships

Although the experimental part of the fieldwork has not yet started, CSA and SANParks (Namaqua National Park) have already been instrumental in the development and planning of this crucial project. We are fortunate to have such strong partners working with us. The partners' support in managing Eco-Herders, providing accommodation for researchers and Anatolian dogs through the Anatolian Dog Breeding Project is greatly appreciated and much needed for the project to achieve its full potential. During fieldwork efforts, assistance from veterinarians and professional trappers will be key for project success.

Ultimately, the project relies on farmer commitment to enable this study to happen. The visits with farmers in Namaqualand have been instructive and very enjoyable and the team has learned a lot about the challenges and opportunities that farmers experience on their land. It is clear that reliable methods are sorely needed to minimize livestock losses to predators and conserve biodiversity. We look forward to solidifying partnerships with the farming community to address the depredation issue effectively.

## Knowledge sharing

The team is of the opinion that making the study results available to the public and scientific community is an integral and essential project component, particularly given the potential applicability of the information to be collected to regions beyond the study area extent. We have already disseminated the research plan at the Arid Zone Ecology Forum (Kimberley) and will also be presenting in December at the Biodiversity Southern Africa Conference (Cape Town). We look forward to starting field data collection and reporting on findings next year.



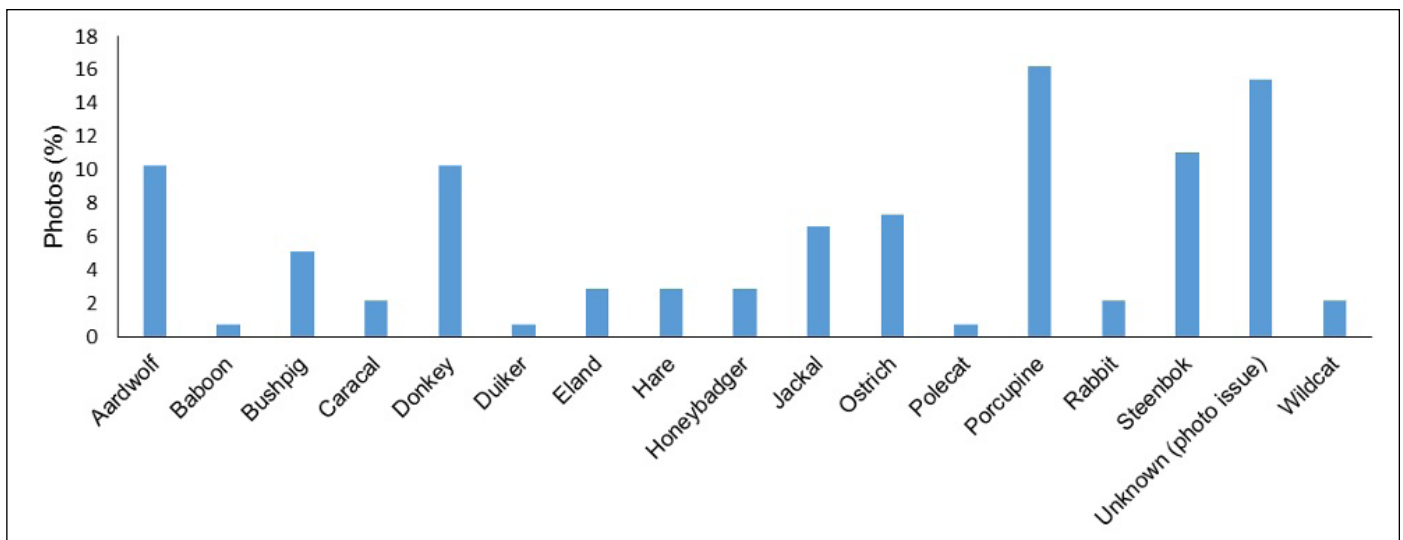
*Namaqualand*

# Gouritz Project

## Gouritz Project

The field-intensive data collection on leopards in the Little Karoo initiated during Gareth Mann's PhD. has been successfully completed and we are now exploring the possibility of extending this into a long-term leopard monitoring project in the region. Local interest in the project has been great, with excellent support from CapeNature. Gamkaberg Reserve hosts multiple biomes and is well worth a visit by researchers and tourists alike, with scenic views, exemplary management and amazingly friendly staff.

Earlier this year, Bogdan Cristescu and Kristine Teichman spent some time at Gamkaberg Reserve performing camera trapping and investigating future projects for the area. Paired camera traps were maintained on trails at Gamkaberg Reserve East to monitor leopard movements. At Gamkaberg West (Groenefontein), they initiated and completed the first camera trap-based survey for mammal detection in the Triangle area - a farm annexed to Groenefontein, which received protected status primarily for its floristic value. 12 mammalian species as well as rabbits, hares and small rodents were captured on cameras during 546 camera trap nights. Porcupines were captured most frequently, with black-backed jackals being the carnivore photographed most often. The relatively large number of species photographed suggests that the addition of the Triangle farm to Groenefontein is contributing to the conservation of mammalian fauna, in addition to flora.



*Graph showing frequency of mammals captured during the Groenefontein camera trap survey*

A camera trap detectability survey is currently underway at Groenefontein. Three camera makes and models are being compared to assess which is most suitable at detecting various focal species. Preliminary results show that some camera types are substantially better at detecting certain species, which has implications for trapping equipment when targeting specific species.

The Cape Leopard Trust's aim is to carry out long-term leopard monitoring in this study region, which will include the use of camera traps. It will take place in conjunction with a focused short-term study at MSc level. We are aiming to facilitate the start of this graduate student project in 2014. We have identified a number of farmers neighbouring Gamkaberg Reserve interested in being involved in the study.







### Education Programme Overview

This year the CLT education programme was sponsored by the National Lottery Distribution Trust Fund (NLDTF), with additional camps being sponsored by Bridgestone SA. We have had another successful year with a full camp programme in the Cederberg and a busy winter period in Cape Town.

### Environmental Camps: from the horse's mouth

Rather than repeating what we do on camps, we have included some feedback from camp supervisors:

*'The children learned so much ... it was wonderful for them to experience things first hand. It is invaluable to have classroom theory brought to life and with expert guidance as well'* – Jane Teixeira, Kommetjie Primary teacher

*'I believe this camp was a challenging, exciting time for the boys, they have grown in their confidence, learnt about the beauty of nature and how to look after it, grown in friendships and it was a superb experience to remember.'* – Johan Slager, Nehemia Project leader

*'It's so difficult to choose what the most successful part of the camp was! Everything was meaningful and great. Wolfberg Cracks – great physical and mental challenge; night hike and star-gazing was a very interesting and special experience; rock art and Stadsaal – fascinating. The kids loved everything!'* – Lallette McGillewie, Muizenberg Junior teacher

*'It was so successful being able to extend the opportunity to children who ordinarily never have such an opportunity. Environmental awareness was very well met through all the various activities. But there were many other benefits. Almost every subject in school was touched on. They arrived quite scared of many aspects about camping in the 'wild' and left not even wanting to kill a LARGE rain spider! Acquiring knowledge about things they were scared of enabled them to quell their fears.'* – Sue Ingram, Greyton Conservation Society

### Facts and figures

Total camps	28
Sponsored camps	20
Number of camp days	106
Participants	421
Supervisors	85
Primary school groups	19
High school groups	2
Adult groups	7
Returning institutions	18
Camps arranged by NGOs	9



### Prize Camps

An exciting development in 2013 has been offering camps as prizes for school environmental competitions, thus motivating the children and deepening their interest in the environment and conservation.

Bothashalte Primêr claimed a camp they had won through their creative entries in the Greenfingers competition. The Greenfingers Initiative is a Witzenberg Eco Centre project working with a number of primary schools in this municipality, focusing on plants, recycling and river health. Throughout the year children work on environmental projects at their schools. The camp was sponsored by Essen Municipality in Belgium.

The Greyton Conservation Society runs an environment outreach programme with local schools focusing on conservation action. Their extensive programme with the schools Eco-teams culminated in an Eco-Quiz, with a CLT camp as the main prize. Children and teachers from the 3 top schools made the trip to the Cederberg, where their interest in the environment and conservation was further inspired.

A similar programme, Thrive Hout Bay, was also sponsored a prize camp. Teachers, learners and mentors have worked hard throughout the year to create more environmentally friendly practices at their schools, including recycling, gardens, worm farms, and better use of water and electricity. The schools then underwent a rigorous environmental audit. Scores were added together and included in the results of an Eco-Quiz and presentations prepared by the children on their achievements. Children from the top three schools - Kronendal Primary, Hout Bay High and Sentinel Primary - had a fantastic camp where the social interaction was as much part of the learning as being in the mountains.



*Children playing games on the Thrive Camp*



Perhaps the most exciting competition for us was our Cape leopard calendar competition, sponsored by Bridgestone SA, which invited school groups to create a 2014 calendar with artworks and information on Cape leopards. The entries were a treat to go through, and such was the quality that two schools – Muizenberg Junior and Kommetjie Primary - won first prize and each attended a camp. The children were also thrilled to receive 50 of their calendars professionally printed.

## A camp with a difference



Surface design students from Cape Peninsula University of Technology (CPUT) attended an unusual Cape Leopard Trust camp. CLT staff and a dedicated team of facilitators and CPUT lecturers put the innovative programme together with a focus on patterns in nature. This intensely personal and creative camp brought together detailed observations of nature with personal awareness through artistic exploration, with the aim of deepening participants' connection with nature as well as inspiring them in their design work. The camp ended with the group watching the sunrise and writing a collective 'I am' poem that brought together various themes that had emerged during the camp. We are pleased to publish this work (see opposite page).

## Roughing It Out with the Media

The Cape Leopard Trust hosted three of the children's reality TV programme, Roughing It Out eco-challenges. Eight children participated in this Cederberg activity, competing in two teams to complete a number of environmental challenges in CapeNature Reserves and other wilderness areas. The challenges set up by us included biodiversity identification, fossil finding and an elaborate predator research challenge that included tracking an actual radio collar attached to a camera trap in the field, identifying the animal photos on the camera, and using a GPS with selected research data to locate a leopard kill site. The CLT episodes should be showing in the New Year on SABC 2.



### **Equipment Donations:**

*Trailer from Margaret Baran  
 Sleeping bags from KWay  
 Binoculars from the Deutsche Bank Africa Foundation  
 GPS units from The MSA Group  
 Ponchos from Meagan Webster and Louise Donald  
 Tools from Skill Craft Tools*



JOINT POEM OF THE  
CPUT STUDENTS & FACILITATORS  
Toktokkie Camp, 25 – 28 October 2013

*I am the long gravel road, welcoming you to my land*

*I am the face seen in the wind-sculpted rock*

*I am the legacy of images left on cave walls*

*I am the sorrow that lives in my heart*

*I am the cloud that bursts with dew*

*I am the pigment in leaves that change colour*

*I am the living within the dead*

*I am the dead plant, continuing to live vibrantly*

*I am the human who is not a robot*

*I am the flame of courage waiting in every heart*

*I am the fishing rod sitting unused*

*I am the stillness before the light*

*I am the One with many directions*

**I am the shaman. Who but I**

**Paints ochre figures upon a rock?**

*I have been every shell washed up on ancient beaches*

*I have been every spoken word of long-lost stories*

*I have been every patterned leopard killed by angry farmers*

*I have been every expression of nature's infinite design.*

**I am the people on stone monuments, awaiting the sun**

**I am the sun, rising to my strength**

**I am the sun bringing warmth, energy and light**

**I am the birdsong circling the earth**

**I am the rock that holds the seed**

**I am the root, the stem and the flower fighting the wind**

**I am the sheep that jumps over the fence**

**I am the aroma of wild rosemary in your food**

**I am the cross, filled with identity**

**I am the footprint, the spoor in the sand**

**I am the fern unfurling in the shadows**

**I am the mist that seeps down the valley**

**I am the fault line, between Karoo and Fynbos**

**I am the toktokkie beetle. Who but I  
Steers by the stars?**

*I have been your every sense captured, without looking*

*I have been every blindfolded and solitary walker*

*I have been every plant whispering to your felt sense*

*I have been all image-making since the dawn of time.*

**I am the sun shining through mountain skyline**

**I am the light that paints the earth**

**I am the earth force bending the rock**

**I am your servant here on earth**

**I am the student and the learning process**

**I am the map of my own future**

**I am the sunglasses reflecting nature differently**

**I am the rainbow standing on the mountain**

**I am the ashes of the fire left behind**

**I am the darkness, drinking the night**

**I am the seedpod and the galaxy exploding**

**I am the baboon spider patiently awaiting my prey**

**I am the yellow scorpion in the torch's blue gaze**

**I am the trustee. Who but I**

**Stands for the endangered leopard?**

*I have been every hope for the vanished and the vanishing*

*I have been every flying star above the night-walkers*

*I have been every burst of laughter around the campfire*

*We have been the praise-singers for every line of this poem.*

(Joint authors) 

### **Cape Town awareness programme**

This year has seen a total of 36 day-outings, mostly in the Cape Town and Boland mountain area. This included a very popular winter holiday programme, which brought together interested children from diverse communities for an adventurous week of hiking and exploring in the Peninsula. As well as conducting presentations for schools and other interest groups, we have distributed Cape leopard posters, which are now available in English, Afrikaans and Xhosa.

### **Staff and interns**

Elizabeth Martins continues to coordinate the Education Programme. Matthew Dowling, much-loved CLT environmental educator who was running the camps, has now left the project. In his place we are pleased to welcome Hadley Lyners to the team. Hadley was thrown in at the deep end in the middle of the busiest camp season, and has already shown that he can swim! In addition, we had temporary assistance with camp driving from Kuba Miszewski. We have now formalized our intern programme, with interns committing to a camp season. Interns are trained to assist with guiding and running camps, campsite maintenance and lesson planning. We have formed links with UNISA who are very keen for us to offer this opportunity to their students. Our interns this year have been Wonga Nongqotho, Callum Clark and Suné Rossouw.

### **Going Forward**

Despite the extensive grant from the NLDTF coming to an end, the Education Project has exciting plans for expansion next year with the appointment of an environmental educator to keep a permanent presence in Cape Town and develop awareness and environmental activities in Cape Town and Boland schools. Given the demand for camps, we are also looking at the possibilities of opening a second campsite, this time in the Boland mountains. Lastly, we are delighted to announce AVIS Car Rental increasing their sponsorship of the Cape Leopard Trust by sponsoring the use of a car for the Cape Town/Boland Education Programme.

*Children from Lightbulb Tuition climbing the Kalk Bay mountain in Cape Town*



### The Wildlife of the Winelands Research Experience

Apart from the scientific value, monitoring leopard movement with satellite tracking devices also presents a unique opportunity stimulating further public interest and environmental awareness. One of the major challenges for NGOs is to be financially self-sustainable. The CLT Boland Project has created the Wildlife of the Winelands Research Experience in an attempt to generate income while adding educational value. Participants are offered an opportunity to participate in a *bona fide* leopard research project, joining research activities such as tracking collared leopards to procure GPS data, locating leopard feeding sites, as well as servicing remote camera traps. This provides a detailed and authentic account of a “day in the life” of a leopard researcher while offering the opportunity to glean in-depth information on relevant and pertinent conservation issues. Although the trips themselves do not generate vast sums of money, the intimate nature of this experience will hopefully lead to further sponsorship opportunities through a better understanding of what the CLT does together while experiencing the hard work and dedication needed to do it.





### **Boland Leopard Sanctuary**

The Boland mountain complex can be seen as an island of leopard habitat within a sea of degraded land. The Western Cape Province State of Biodiversity Report (SOB) 2012 clearly indicates that habitat loss remains the biggest threat to biodiversity in the Western Cape, and this is particularly evident in the case of leopards. One tends to think of leopards as being confined only to the steep rocky mountain slopes, however our GPS data shows that they also move and hunt on the low-lying foothills. These areas that are easily accessible to humans are potential sites for conflict.

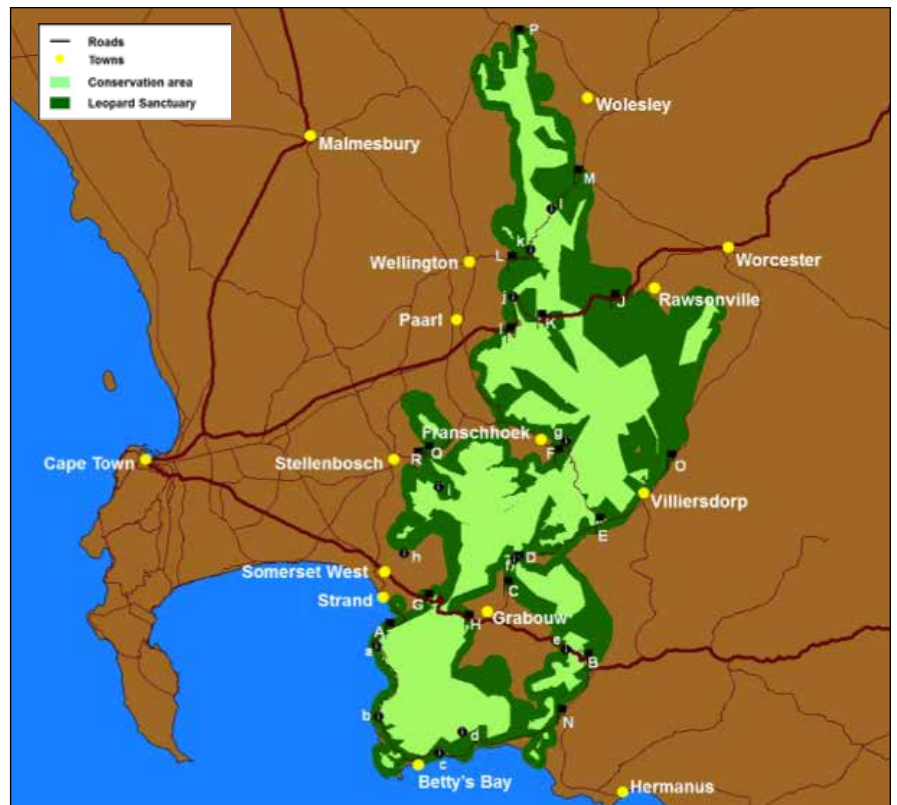
The Western Cape's historical Protected Area network alone no longer adequately protects the majority of ecosystems or biodiversity. Conservation bodies have identified the need to expand the Protected Area network, particularly as most of the province's biodiversity lies within private ownership enjoying very little legislative protection. A key means to achieve this is via conservation stewardship projects where critical biodiversity areas on private property are secured for protection in collaboration with private landowners. The CLT is joining forces with conservation bodies and private land owners in a project aligned with the National Protected Areas Expansion Strategy (NPAES).

In partnership with CapeNature Stewardship Program, WWF Biodiversity & Wine Initiative (BWI), Sustainable Fruit Initiative, Cape Winelands Biosphere Reserve, Kogelberg Biosphere Reserve and Conservation at Work (C@W), the CLT is working towards declaring a Cape Mountain Leopard Sanctuary in the Boland mountains. This is being achieved through long-term awareness raising, public education and voluntary conservation projects that encourage and mobilize land owners to manage and protect their property in such a way that it becomes 'biodiversity friendly'.

2014 will see the rolling out of the first phase of the public awareness and education drive with 19 interpretive signage boards being erected at strategic tourist locations and along roads throughout the Boland region.



*Proposed Boland Leopard Sanctuary. Light green indicates protected areas; dark green indicates the potential conservation area through biodiversity stewardship.*



These boards will focus on the importance of the leopard as top predator in the fynbos environment. Complementing this awareness drive will be educational workshops for farm workers informing them about the importance of biodiversity and the potential impact of illegal snaring and hunting on the environment.



### Capture for Conservation – Leopard Trapping in the Cederberg

A window of opportunity presented itself in the last week of August for Quinton to arrange 4 weeks of leopard trapping in the Cederberg. The focus was to trap 3 leopards in the Cederberg with Capture for Conservation trapping associate, Jeff Sikich. Jeff is a US biologist and specialist trapper working on mountain lions for the National Parks services in California.

The Cape Leopard Trust has always taken great pride in pushing the boundaries in terms of animal safety in its research methods. It has, for example, recognised the value of moving away from traditional cage trapping of large carnivores, to successfully using foot-loops or foot-snares. The use of these traps has required considerable training from American trapping experts and significant financial investment. The results have shown – apart from having a multitude of perfectly safe captures, we have also been 100% effective in only capturing target species – leopards – with us not having had to remove any other species from our traps over 3 years. Although highly effective, selective and safe, this trapping technique requires considerable skill and dedication with traps needing to be monitored around the clock with maximum of 3-hourly checks. This is one of the key underlying themes behind the Capture for Conservation model – finding the safest and most effective ways of trapping animals for research purposes. We are looking for funding to assist projects around the world needing the experience and expertise we have to train students/researchers/conservationists to

*Teeth, claws and pads still in perfect condition using foot-loop traps, the safest trapping technique for large carnivores*





use specialist trapping techniques to improve their outputs.

Trapping in the Cederberg is by no means an easy task. Traps are mostly off the beaten track and have to be hiked to. Conditions were pretty much what were expected for that time of the year – cold and wet! For the first week Quinton was alone and heavy weather hampered trapping opportunities with floods and snow – traps were closed as a result, leaving only 3 weeks for the two, along with the accompanying volunteers doing trap monitoring, to successfully get the three cats. With a great deal of effort and long interrupted or sleepless nights, the quota was achieved.

*Crystal, the female leopard collared on Bushman's Kloof*

Capture for Conservation has been requested to assist with a predator project in the Damaraland/Skeleton Coast region next year. Quinton is looking to find funding to have Jeff accompany him on this trip.



### Arabian leopard ecology and conservation workshop

In January, Quinton Martins was invited by the Saudi Wildlife Authority to conduct an Arabian leopard ecology and conservation workshop at the National Wildlife Research Centre (NWRC) in Taif, Saudi Arabia.

The Arabian leopard *Panthera pardus nimr* is classified as Critically Endangered according to the IUCN Red Data List (2008). A resident population of this rare and endangered subspecies is known to exist in Oman and Yemen, but not in Saudi Arabia. Recent surveys suggest total population estimates of 200 for the entire Arabian Peninsula may be an overestimate. Since 1999, records of leopard in Saudi Arabia have yet to be substantiated apart from 4 incidents when animals were poisoned as a result of livestock depredation events. Leopards are threatened in areas such as Saudi Arabia where conserved areas suitable for leopards are small and perturbation of habitat extensive due to human settlement and massive infrastructural development.

The similarity of leopards in the Western Cape mountains to the Arabian leopard suggests it to be a good comparative subject. These equally small leopards also occur in low densities exhibiting some of the largest home ranges recorded for the species while inhabiting similar rugged, mountainous terrain.

To begin with, a workshop was held to review knowledge on leopard ecology and local conservation issues. Quinton presented on his work in the Cape as well as leopard ecology and conservation on a broader level, while researchers from Oman provided an update on recent Arabian leopard work.

Thereafter the team headed south in search of the leopard in the mountains near Al Namas. This spectacular area is characterised by large, deeply incised and very steep mountains reaching over 3000m in height. Juniper forests are found in the mist covered peaks, while further below, rough and arid scrub persists much like mountains we see in the Northern Cape or Namibia – just much larger. Hiking was tough, but invigorating as Quinton was soon to find signs of new and rare species such the Arabian wolf and striped hyaena. Massive troops of Hamadryas baboons were prevalent in the area, sometimes numbering over 600 in a group. Sadly, no definitive signs of leopards were seen.

Sixteen camera stations were established in suitable leopard areas. As time was limited, sites were first identified using Google Earth, and then visited on foot to confirm suitability. The camera survey was aimed at leopard detection only. A general paucity of prey and predators was observed. This could be attributed to poaching, construction, human encroachment, overgrazing, feral dogs, poisons, road kills and livestock.



Sadly no leopards have been photographed and poachers have already stolen over 70% of the cameras. This appears almost inconceivable in such a wealthy country, considering not a single camera has been stolen in the Cederberg since April 2004.

*Field ranger posing with a camera in the survey of mountains near Al Namas*



Quinton reported that this was one of the most interesting trips, yet depressing seeing how much litter was seen lying around even in what should be pristine areas, how scant conservation capacity appears to be and how intensive development is. Quinton was presented with an award by the director of the NWRC on behalf of Secretary General, HH Prince Bandar for his assistance and support of the Arabian leopard conservation initiative and joins the likes of snow leopard research legend Rodney Jackson in the plight to conserve this rare and threatened cat. A report will be submitted to the IUCN Cat Specialist group on his findings.

### **Leopard captures in Majete Wildlife Reserve, Malawi**



*Bushveld leopard*



*Sunset over Majete Wildlife Reserve*

In September Quinton flew up to Majete Wildlife Reserve, a jewel of African bushveld rehabilitated and very well managed by Africa Parks. His mission was to capture 3 leopards (2 males and 1 female) in order to remove their GPS collars. There was a sense of urgency as it was thought that the collars may be constricting the animals.

Things got off to a good start with the first male captured on the first day. The following day almost saw the female caught. However, that near miss encounter led to 10 more days of very hard work trying to get her. The team were focussing fully on her as the last male had yet to be found, however, she was being extremely wily. Temperatures soared to the mid-40's and traps had to be set in the heat of the day when the leopards were resting. Coming from snowy conditions in the Cederberg could not have led to a greater contrast. Eventually the leopard gods favoured the team and Quinton tracked the female into a hilly area where she had made a kill. The team were even able to observe her and her cub of about 1 year. The reserve and re-introduction had clearly been good to her. Rushing like mad, traps were set before nightfall on the kill she had made, and a few hours later she was safely captured and her awkward collar removed.

On the second last day the third male was tracked in the far southern part of this glorious 70,000ha reserve. Dead on their feet, the team set the last traps to try and get this male. However, their luck had run out. Overall the trip was a major success - in addition to the leopard captures, Quinton managed to catch and collar a male hyaena for the predator study he will be co-supervising with Dr Alison Leslie for a Conservation Ecology MSc student from Stellenbosch University next year.

# Collaborators

## There is an Isotope in my Leopard

Dr. Frans Radloff of the Cape Peninsula University of Technology (CPUT), together with the CLT, is exploring the use of Stable Isotope Analysis (SIA) to better understand Boland leopard ecology.

Assessing the diet of large carnivores plays an important part in understanding their role in the ecosystem, information vital for conservation management purposes. As demonstrated by the CLT, scat analysis and GPS cluster analysis prove to be very useful in determining a predator's diet. A third method, SIA, has been proposed to provide an even more complete picture of diet. Scat analysis provides only a snapshot of the animal's total diet and is difficult to assign to a specific individual, GPS cluster analysis is biased to large prey and continuous direct observations of predators such as leopards in the Boland Mountains is not feasible. Stable isotope analysis of leopard tissues and in particular whiskers has the potential to aid in our understanding of leopard diet as it can overcome some of the mentioned shortcomings by providing dietary information comprising a long time period for specific individuals. The analysis of keratinous tissues provides valuable insight into animals' diets, as they record dietary information in a sequential manner (because growth is incremental and the tissue does not turnover) providing temporal information on resource partitioning at all levels from individual specialisation to entire populations. SIA can thus help to determine dietary differences between individual leopards by comparing the isotopic signatures using their whiskers.

## How it Works

It is complicated, but here is an attempt at explaining the nitty gritty of SIA:

Isotopes are atoms of a chemical element with the same number of protons but a different number of neutrons. Protons together with neutrons are the major contributors of an atom's mass. Isotopes are classified as either stable or unstable/radioactive. Stable isotopes maintain the same ratios on earth over time whilst unstable isotopes decay at a constant rate and form other isotopes. Among the stable isotopes, the most useful as biological tracers are the heavy isotopes of carbon ( $^{13}\text{C}$ ) and nitrogen ( $^{15}\text{N}$ ).

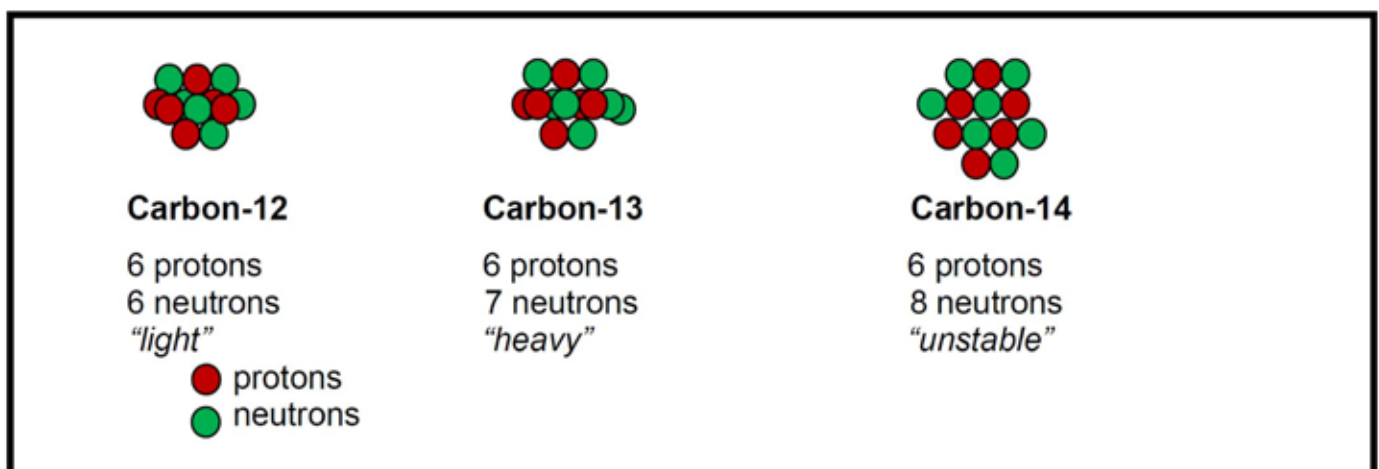


Fig 1: A diagram illustrating the three different isotopic forms of carbon. All three have the same number of protons but a different number of neutrons. Carbon-13 is thus slightly "heavier" than carbon-12

On land, and especially in tropical and subtropical ecosystems, stable isotopes of carbon are often used to differentiate between diets made up of grass (predominantly  $\text{C}_4$  plants) and those made up of trees ( $\text{C}_3$  plants). Using different photosynthetic pathways,  $\text{C}_3$  plants and  $\text{C}_4$  plants fix carbon dioxide in different ways

so that graze (grass) and browse (trees, shrubs and herbs) plants can be separated from each other based on the stable carbon isotope ratio of their tissue. Animals such as antelope consume plants, incorporating these distinctive isotopes into its body tissue, thus providing a direct reflection of its diet – you are what you eat. In turn, the herbivore species consumed by predators can be determined by analysing the tissue of the predator if there are sufficient differences in diet between its prey. So, to cut a long story short, whiskers can provide us with an opportunity to assess diet of a particular individual over a long time period while making direct comparisons between individuals possible, something that is very difficult to achieve with other methods.



*Frans Radloff*

Frans Radloff, Conservation Management lecturer at CPUT and long-time colleague and supporter of the Cape Leopard Trust, has experienced practically every job going within nature conservation.

**Frans** has a PhD in Botany, MSc in Zoology and a BSc (Hons) in Wildlife Management. His PhD work at Stellenbosch University (2005-08) focused on the ecology of large herbivores native to the coastal lowlands of the Fynbos Biome in the Western Cape. His Masters degree research at the Mammal Research Institute of University Pretoria (2000-01) pertained to the relationship between the size of large predators' and their prey in the lowveld area of Mpumalanga. He did a study in Angola, and during 2009/10, as a postdoctoral student, he studied the diet of the Nile crocodile population in the Okavango Delta using stable isotope analysis.

His research interests lie within community ecology and ecosystem functioning, with particularly interest in how animals influence and shape ecosystems by means of herbivory and predation. Frans has taught extensively in the field of wildlife management in both South Africa and Tanzania. He has published 7 peer-reviewed papers, 1 book chapter and presented 14 papers at national and international conferences. Frans is currently working for Cape Peninsula University of Technology as a lecturer in the Department of Biodiversity and Conservation and serves on the executive council of the South African Wildlife Management Association.

### Conferences 2013

Hayward, J., O’Riain, J., Martins, Q. & Meyer, A. Spatial and behavioural ecology of Cape leopards in the Boland mountains, Western Cape, SA. *Biodiversity Southern Africa Conference*

Mann, G. A leopard’s favourite spots: habitat preferences of leopards in the Little Karoo. *SAWMA Conference* - won the prize for best short presentation from a PhD student

Teichman, K., Cristescu, B., Hawkins, H. & Martins, Q. Wildlife-human coexistence: mitigation of livestock predation while conserving biodiversity in the Karoo. *Arid Zone Ecology Forum*

Teichman, K., Cristescu, B., Hawkins, H., Darimont, C., O’Riain, J. & Martins, Q. Wildlife-human coexistence: mitigation of livestock predation while conserving biological diversity in the Succulent Karoo. *Biodiversity Southern Africa Conference*

### Scientific Publications

Martins, Q. & Harris, S. (2013). Movement, activity and hunting behaviour of leopards in the Cederberg mountains, South Africa. *African Journal of Ecology*, pp. 1- 9.

Fröhlich, M., Berger, A., Kramer-Schadt, S., Heckmann, I. & Martins, Q. (2012). Complementing GPS cluster analysis with activity data for studies of leopard (*Panthera pardus*) diet. *South African Journal of Wildlife Research* 42 (2).

Martins, Q. (2011). The ecology of the leopard *Panthera pardus* in the Cederberg Mountains. PhD Thesis, University of Bristol.

Martins, Q., Horsnell, W.G.C., Titus, W., Rautenbach, T. & Harris, S. (2010). Diet determination of the Cape Mountain leopards using global positioning system location clusters and scat analysis. *Journal of Zoology* 283, 81-87.

Fröhlich, M. (2011). Studying the foraging ecology of leopards (*Panthera pardus*) using activity and location data: an exploratory attempt. Masters Thesis.

Rautenbach, T. (2009) Assessing the diet of the Cape leopard (*Panthera pardus*) in the Cederberg and Gamka Mountains, South Africa. Master’s Thesis, Nelson Mandela Metropolitan University, South Africa (Scholarship provided by the Cape Leopard Trust).

Lindsay, P. (2008) A spatio-temporal analysis of the habitat use of leopards (*Panthera pardus*) in the Karoo biome of the Cederberg Mountains, South Africa. Honours Thesis, University of Cape Town, South Africa (in collaboration with the Cape Leopard Trust).

Parsons, S., Smith, S.G.D., Martins, Q., Horsnell, W.G.C, Gouse, T.A., Streicher, E.M., Warrena, R.M., van Helden, P.D. & van Pittiusa, N.C.G. (2008) Pulmonary infection due to the dassie bacillus (*Mycobacterium tuberculosis* complex sp.) in a free-living dassie (rock hyrax—*Procavia capensis*) from South Africa. *Tuberculosis* 88, 80-83.

Martins, N. (2006) Conservation genetics of *Panthera pardus* in South Africa: Phylogeography of mitochondrial lineages. Master’s Thesis, University of Bergen, Norway (Scholarship provided by the Cape Leopard Trust).

Martins, Q. & Martins, N. (2006) Leopards of the Cape: Conservation and Conservation concerns. *International Journal of Environmental Studies*, 63(5), 579-585.

### Main Sponsors

Special thanks must go to the following donors making a significant contribution to our project over the past year. Several of these sponsors have been supporting the Cape Leopard Trust since its inception in 2004.



### Donors

We wish to thank all donors to the project no matter how big or small the contribution. All contributions are recognised on our website. Your support is greatly appreciated.

### Partners

We would also like to acknowledge our various partners and associates. It is heartwarming to work with other like-minded organisations towards the same goals. Specifically we would like to thank Conservation SA, CapeNature, SANParks, Cederberg Conservancy and Dr Alison Leslie (University of Stellenbosch) for their support.

**The Cape Leopard Trust**  
**Registration Number IT2720/2004**  
**Annual Financial Statements for the year ended 28 February 2013**

<b>STATEMENT OF COMPREHENSIVE INCOME</b>	<b>2013</b>	<b>2012</b>
REVENUE	R 2 297 122.00	R 1 928 903.00
OTHER INCOME	R -	R 50 388.00
OPERATING EXPENSES	R 2 570 995.00	R 2 441 052.00
OPERATING DEFICIT	R 273 873.00	R 461 761.00
INVESTMENT REVENUE	R 13 219.00	R 24 029.00
<b>DEFICIT FOR THE YEAR</b>	<b>R 260 654.00</b>	<b>R 437 732.00</b>
<b>ASSETS</b>		
NON-CURRENT ASSETS (PROPERTY, EQUIPMENT)	R 647 403.00	R 758 572.00
CURRENT ASSETS (CASH AND CASH EQUIVALENTS)	R 1 076 291.00	R 1 221 263.00
<b>TOTAL ASSETS</b>	<b>R 1 723 694.00</b>	<b>R 1 979 835.00</b>
<b>EQUITY</b>		
TRUST CAPITAL	R 200.00	R 200.00
ACCUMULATED SURPLUS	R 1 710 247.00	R 1 970 901.00
<b>LIABILITIES</b>		
CURRENT LIABILITIES (TRADE & OTHER PAYMENTS)	R 13 247.00	R 8 734.00
<b>TOTAL EQUITY &amp; LIABILITIES</b>	<b>R 1 723 694.00</b>	<b>R 1 979 835.00</b>
BALANCE AT 01 MARCH 2012	R -	R 1 971 101.00
BALANCE AT 01 MARCH 2013	R 1 710 447.00	R -
<b>CASH FLOW 2012/13</b>		
CASH AT BEGINNING OF YEAR	R 1 221 263.00	R 1 522 987.00
CASH AT END OF YEAR	R 1 076 292.00	R 1 221 263.00
<b>DONATIONS OF R100,000.00 &amp; ABOVE</b>	<b>R 1 513 302.00</b>	<b>R 1 139 320.00</b>

Audited Financials Compiled By CAP Chartered Accountants

# Creatures Worth Conserving

13

14

15

16



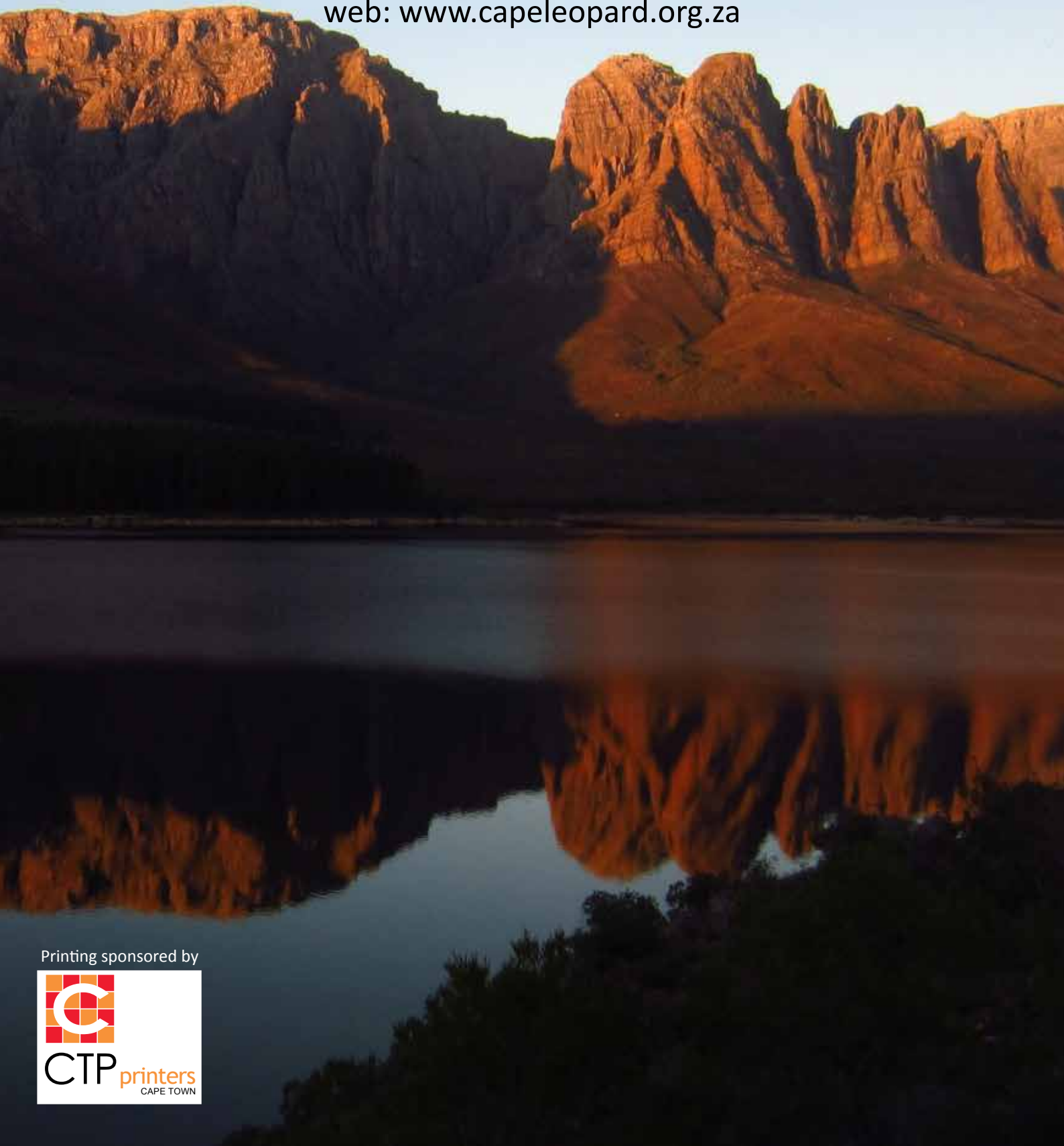


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