



AfriCat Foundation Annual Report

1 March 2016 – 28 Feb 2018



Rohan van Wyk

CONTENTS

I. Introduction	3
History – The Formation of AfriCat	4
What We Do Now	6
AfriCat’s Mission	6
Who and Where We Are	7
AfriCat and Okonjima – A Symbiosis at Work	22
II. 2012-2014 Annual Report	23
Programme 1: Research	23
Programme 1 - Project 1: Hobatere Lion Research Project	26
Programme 1 - Project 3: Research in the 20,000 hectare (200 km ²) Okonjima Nature Reserve	39
Programme 1 - Project 4: Research in the AfriCat Carnivore Care Centre	49
Programme 2: Carnivore Care	61
Programme 3: Environmental Education	65
Programme 4: Rehabilitation, the Okonjima Nature Reserve, and Rescue and Release	69
Programme 5: Human-Wildlife Conflict Mitigation and Community Support	74
III. Budget and Statistics	83

I: Introduction

Problem Statement – Why We Do What We Do

Namibia is home to approximately 25% of the world's cheetah population, of which 90% live on farmland. Namibia's other large carnivores, namely leopards, lions, Wild Dogs, brown and spotted hyenas, are not, however, believed to make up such a large percentage of the world's population even though they also all occur in the unique farmland ecosystem. It is the inevitable conflict with humans on commercial and communal farmland that created the necessity for the establishment of the AfriCat Foundation.

Habitat loss is one of the largest threats to the large carnivore populations in Namibia. Over 7,000 commercial livestock and game farms cover approximately 355,000 km² and communal land covers an estimated area of 125,000 km² of Namibia's total 825,418 km². With the majority of leopards and cheetahs existing in these parts of the country, the resulting conflict between these predators and farmers protecting their livelihood is inevitable as the areas of natural habitat where these animals can safely exist have, consequently, been reduced dramatically.

General predator removal is often the "livestock-protection method" utilised by farmers who view most predators as "problem animals" and cheetahs and leopards are trapped, poisoned, or shot on sight. In most cases, an individual animal is responsible for stock losses and not the species in general and this indiscriminate removal leads to the unnecessary elimination of many blameless animals. Some individual cats are more likely to prey on livestock as opposed to their 'normal' prey diet for a number of reasons, such as being weak, injured, or old. With livestock generally defenceless against such predators, they become a much easier and more appealing kill to cats which may not have the ability to prey on a more natural selection as opposed to the species in general. In addition to this, removing an individual which has killed some livestock does nothing but empty its territory, which will subsequently be filled again by at least one other predator, if not more. In short, it is not solving the problem of livestock predation.

The AfriCat Foundation has recognised this conflict as one of the key issues to successful conservation and sustainable development and has courageously taken up the gauntlet in striving to moderate between the two opposing sides.



History – The Formation of AfriCat

The AfriCat story started in 1970, when the Hanssen family settled on the farm Okonjima in central Namibia. Brahman cattle were raised on the land but annual losses of calves to predators, particularly leopards, amounted to between 20 and 30 per year, decimating the herd and resulting in huge financial losses. As with many farmers at that time, the Hanssens took the path of trapping, shooting, and hunting leopards in an attempt to minimise their losses. However, these losses continued at the same rate as before. Other measures were employed and calf-holding pens were built at watering holes where cows could give birth safely. The calves remained in protective custody until they were approximately 4 months old with their mothers coming in at regular intervals to feed them. Using this simple livestock protection method reduced losses to about 3 or 4 per year.

Wayne, the only son of the Hanssen family, recognised the need for a better understanding between humans and carnivores. He began observing the leopards, becoming more familiar with their habits and movements. At the same time, the family started a small bed-and-breakfast business and tourists began to visit Okonjima. Wayne's research revealed where leopards could be found and he started to share his viewing experiences with guests. Hunting ceased as more and more guests came to view the big cats at close quarters and Okonjima became a rapidly-growing tourism enterprise.

The AfriCat Foundation was founded in 1991 on Farm Okonjima and officially registered as a non-profit organisation in 1993. AfriCat was created as a result of information gained through Wayne's research on Okonjima during their cattle farming days, the loss of calves to leopards, finding solutions, and the desire to share this information with fellow farmers.

From this platform, farmers throughout the area turned to AfriCat to handle 'problem' cats, often calling AfriCat to their farms to collect animals which they had trapped to protect their livestock. Upon arrival, AfriCat made an effort to persuade the farmers to release the cats but, as an instinctive hatred towards these animals was so engrained, this was often a futile task. Failing to convince farmers to release, AfriCat relocated older cats to the properties of more tolerant farmers, but in cases which involved orphaned cubs, the only viable option was lifelong care by the AfriCat team at their Care Centre.

AfriCat's wilderness camp, **AfriCat North** (formerly known as Afri-Leo), was registered as a Namibian-based, non-profit organisation in 1997 and has worked closely with the AfriCat Foundation since its founding.

Run by the Hanssen family's eldest daughter, Tammy Hoth-Hanssen, AfriCat North operates in much the same way as AfriCat on Okonjima but instead focuses on lions and spotted hyenas rather than leopards, Wild Dogs, and cheetahs.

Due to the ever-increasing demands of carnivore conservation, these two groups were merged under the AfriCat banner, and Afri-Leo's programmes and projects have continued

and expanded under the name of AfriCat North. Its headquarters are ideally situated in north-western Namibia, bordering the Etosha National Park, to play a vital role in supporting Environmental Education, Farmer-Predator/Human-Wildlife Conflict Mitigation & Community Support, and Research and Monitoring Programmes in the Kunene Region of Namibia.

Since AfriCat and AfriCat North's inception, more than 1,100 of these predators have been rescued and over 85% of them were released back into the wild. In addition to the rescue, rehabilitation, and release of these cats, AfriCat provides care for those which cannot be returned to the wild due to a variety of factors such as habituation, loss of hunting skills, and injury, as well as educational opportunities aimed at all ages to promote the long-term conservation of these predators.



What We Do Now

The AfriCat Foundation prides itself on being an evolving conservation organisation which changes its focus appropriately using various effective methods to meet the conservation needs of large carnivores at any particular time. In 2010, realising that the process of rescue and release alone was becoming outdated, AfriCat identified the need for a shift in focus to 'Conservation through Education'. This new direction seeks to change the mind-set of future generations in order to provide a positive understanding and experience of the country's natural heritage and its Big Cats in particular. AfriCat has organised this new orientation into programmes which will be explained and reported on in detail in section II. They are Research, Carnivore Care, Environmental Education, Rehabilitation and Rescue & Release and Human Wildlife Conflict & Community Support. As all of AfriCat's projects are interconnected, these programmes help to increase awareness amongst the local community as well as globally, and serve as an ambassadorship to the conservation of these carnivores.



AfriCat's Mission

The AfriCat Foundation's mission is to make a significant contribution to conservation through education and research. It strives to ensure the long-term survival of Namibia's predators in their natural habitat by working with commercial farmers, local communities, communal conservancies, various other stakeholders, and the youth of Namibia. Through its education efforts and wildlife research projects, AfriCat plays a crucial role in increasing our understanding of, and providing sustainable solutions to, conservation challenges in general and human-wildlife conflict and animal welfare issues in particular.

Who and Where We Are

AfriCat's Board of Trustees

As the AfriCat Foundation's vision expanded over time, and also pivoted towards research and education, its Board of Trustees was also broadened. A larger, more broad-based Board was appointed in order to be better able to represent the various stakeholders of the Foundation, as well as provide varying skill sets and fresh perspectives to the Foundation.

As such, the AfriCat Foundation's Board comprises:

Wayne Hanssen: Founder and Trustee – In addition to being AfriCat's founder, Wayne acts as a Trustee and is involved in the daily running of AfriCat and its 20,000-hectare reserve. Wayne leads the Okonjima team in a tourism venture which offers their clients a high-quality, authentic safari experience, proceeds of which are used for conservation, environmental education, and social responsibility.



Tammy Hoth-Hanssen: Executive Director – Tammy is the public face of the Foundation in Namibia and interacts with the Ministry of Environment and Tourism, as well as with local supporters and donors. She is AfriCat's global representative, attending meetings, presenting public statements, and generally handles its public relations. Tammy is based at AfriCat North, which borders western Etosha National Park. From this location, Tammy heads the Environmental Education, Research, and Human-Wildlife Conflict Mitigation & Community Support Programmes in the Communal Conservancies and wilderness areas of the northwest.

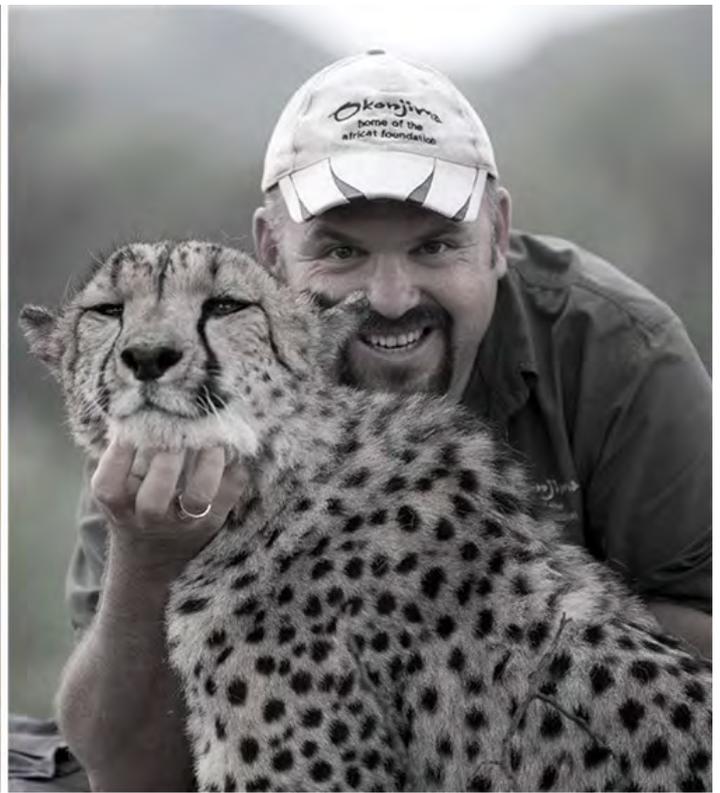
Mark Reinecke: Chairperson – Mark’s role as AfriCat’s chairperson involves running board meetings and formulating strategic fund-raising decisions to be made by the organisation, as well as considering all legal matters. Mark and his wife, Karen Codling (Foundation Secretary), are also part owners of some of AfriCat’s rehabilitation lands, located on Farm Ombujongwe.



Karen Codling: Secretary – As AfriCat’s secretary, Karen is responsible for maintaining the Board records of the Foundation. Her professional experience is grounded in working for and with the United Nations Children’s Emergency Fund (UNICEF) in matters of public policy, maternal & child health, and micronutrient deficiencies. She is also part owner of rehabilitation lands with her husband, Mark Reinecke (chairperson).

Kathleen Newton: Treasurer – Kathleen ensures that the Foundation remains focused on the conservation and rehabilitation goals, as well as maintaining strong fiscal controls over generously donated funds. In addition, her experience with, and knowledge of, other trusts and her understanding of Namibia’s business community, is a valuable asset.

Donna Hanssen: Trustee – Donna is involved in the daily decision-making and running of AfriCat Head Quarters. She also has brought her considerable skills to bear in the reorganisation of AfriCat, particularly in raising the Foundation’s profile and bringing it closer to Okonjima’s guests. In addition to increasing awareness among lodge guests, she is responsible for the new image which the Foundation now represents and joins her sister, Tammy Hoth-Hanssen, as the public face of AfriCat internationally.



Tristan Boehme: Trustee – Tristan is involved in the daily running of AfriCat and the marketing of the AfriCat Foundation and its legacy with Okonjima guests. He also works on increasing the organisation’s public profile in order to stimulate donations. He and Donna work hand in hand to ensure that AfriCat meets its maximum potential in the realm of Carnivore Conservation and Education.

Dr. Mark Jago: Trustee – Mark has enjoyed a long and distinguished career in the Namibian Ministry of Environment and Tourism and thereafter founded the Veterinary faculty of the University of Namibia. He has been instrumental in facilitating the AfriCat Foundation to align its work with national policies and regulations on conservation, in general, and carnivores in particular. As a Wildlife Veterinarian, he is constantly aware of the conservation needs of Namibia’s fauna and is able to make recommendations with these needs at heart.



David Farquharson: AfriCat UK – As a corporate lawyer, David has assisted with the running of AfriCat UK and various works with the Foundation’s legal requirements and issues. He also manages AfriCat UK’s funds.

Team AfriCat

The AfriCat Foundation runs smoothly thanks to the team of employees who handle everything from the management and running of the organisation to the care of the animals under AfriCat’s protection.

Selma Amadhila: Administrator - As AfriCat’s office administrator, Selma is responsible for AfriCat’s office work, communication throughout the organisation and with potential donors, AfriCat staff issues, as well as overseeing the Carnivore Care Centre and its daily running.

Louis Heyns: Field Co-ordinator – Louis is responsible for the rehabilitated animals’ welfare in the Okonjima Reserve. He monitors the released and rehabilitated carnivores on a daily basis and maintains the database on their interactions with other animals in the Okonjima Reserve, in collaboration with Okonjima guides.

Jenny Noack M.Sc.: AfriCat Researcher and Biologist – Jenny studied biology in Germany and completed her Bachelor of Science at the Freie Universität zu Berlin in 2010 and subsequently specialised in Evolution and Organismic Biology with emphasis on Zoology and Conservation at the Humboldt Universität zu Berlin. Jenny earned a Master of Science degree after a 4-month field project at the AfriCat North headquarters that aimed to investigate the occurrence of large carnivores and their potential prey species via the application of camera traps. Besides coordinating and implementing the current Okonjima/ AfriCat leopard density study, Jenny is assisting with the monitoring of the rehabilitated carnivores in the 20,000 ha Okonjima Nature Reserve and collects data of all the carnivores within the 200km² Nature Reserve. She assists with the AfriCat Environmental Education programme and the admin demands of the foundation.



Dr. Diethardt Rodenwoldt: AfriCat Veterinarian - Dr. Rodenwoldt joined AfriCat in August 2015 and is responsible for monitoring the health and welfare of AfriCat's longer-term residents as well as several of the carnivores in the Okonjima Nature Reserve. Diethardt also takes time out to assist the AfriCat North Lion Research team, immobilising lions designated for collaring as part of the AfriCat Hobatere Lion Research Project (AHLRP). Dr. Rodenwoldt and a number of other veterinary specialists support Team AfriCat in achieving the ultimate goal for wild felines, canines, and herbivores in terms of conservation, education, veterinary care, and research.



Dr. Sarah Edwards: AfriCat Researcher - Originally from Cheshire in the United Kingdom, Sarah first came to Namibia in 2007. Having gained a B.Sc. in Animal Behaviour and Welfare, Sarah studied ground squirrels on the NamibRand Nature Reserve for a year before returning to the UK to complete her masters in Animal Behaviour at Manchester Metropolitan University. She then returned to Namibia to work on an environmental impact assessment on the potential impacts of the mining industry on brown hyenas within the Sperrgebiet National Park, with the Brown Hyena Research Project in Luderitz.

After spending a year researching forest ecology in Cambodia, and working on an environmental impact assessment within the Sperrgebiet National Park, she returned to Namibia to complete her Ph.D. in human-wildlife conflict on commercial farmlands bordering the Namib-Naukluft and Sperrgebiet National Parks in southern Namibia with the Brown Hyena Research Project. Sarah will be running the AfriCat brown hyena research

project which aims to gain a better understanding of the spatial and social ecology of this misunderstood species when living in a closed reserve.



Johan Viljoen: Environmental Educator - The Environmental Educator presents the AfriCat Environmental Education Programme (AEEP) at the PAWS Environmental Education Centre, running the School Outreach Programme, visiting schools and presenting various relevant environmental topics, all the while striving to inspire learners to become aware of environmental challenges in Namibia today.

Maryke Viljoen: Environmental Educator's Assistant - The Environmental Educator's Assistant is responsible for the general running of the camp during school visits. This includes planning menus, ordering stock, and meal preparations. She is also responsible for the supervision over camp staff.

Faustinos Kaputura: Environmental Education Camp Assistant - The Camp Assistant's main responsibilities are the general upkeep of the campsite, maintenance of infrastructure, and several other duties as may be needed from time to time. He is also available to assist with general safety supervision during trails - and supporting visitor groups in all regards.

Rosa Majoro: Environmental Education Kitchen Assistant: The Kitchen Assistant is responsible for maintaining the general cleanliness of the ablution and kitchen facilities. She also assists with meal preparation.

Andries Garab: Senior Field Assistant and Carnivore Caretaker – Andries’ role as Field Assistant and Carnivore Caretaker includes overseeing food preparation, feeding, and daily visual inspection of animal welfare.

Lukas Hiskia: Senior Field Assistant and Carnivore Caretaker – Lukas’ role as Field Assistant and Carnivore Caretaker includes overseeing food preparation, feeding, and daily visual inspection of animal welfare.

Michael Kudumo: Junior Field Assistant and Carnivore Caretaker – John’s role as Field Assistant and Carnivore Caretaker includes overseeing food preparation, feeding, and daily visual inspection of animal welfare.

Justina Kaghuvi: Housekeeping and Office Assistant - Justina’s role as Housekeeping and Office Assistant includes the maintenance, organisation, and cleanliness of the AfriCat office, kitchen, Clinic, Information Centre, and carnivore food preparation areas.

Jackson Kavetu, Titus Turitjo, Uezekandavii Nguezeeta, and Scott Vepanguriruaije Kapi: AfriCat Lion Guards – The duties of the four Lion Guards of the Ehirovipuka Conservancy include monitoring and reporting on lion whereabouts, reporting incidents, patrolling fences with the Ministry of Environment & Tourism (MET), and monitoring and reporting poaching and other illegal activities. They also work closely with local farmers in identifying priority villages for kraal-building, encouraging, and guiding farmers to adopt the AfriCat Livestock Protection programme and carrying the message of Conservation from the highest authorities to the farmer. The Lion Guards work with and through German Muzuma, a former Lion Guard and a Traditional Chief in the area, and his word is respected. As such, the AfriCat message is therefore heard more readily by locals.

Steve Swann: Projects coordinator of the AfriCat North Human-Wildlife Conflict Mitigation & Community Support Programme – Steve is responsible for the daily monitoring and visual observation of the GPS-collared lions of the Hobatere concession area and its surrounding conservancies, and is helping with the logistics of human wildlife conflict mitigation and management.



AfriCat Locations

The **AfriCat Foundation** is located just 70 kilometres south of the small town of Otjiwarongo, in the Otjozondjupa Region in Central Namibia; situated on the Hanssen family's cattle farm-turned-Nature Reserve which now operates a 20,000-hectare area in the efforts of long-term carnivore conservation, focusing on the rehabilitation of once-captive cheetahs, environmental education, research and care of cheetahs, leopards, wild dogs, spotted & brown hyenas.





AfriCat North is AfriCat’s wilderness base, located in north-western Namibia, bordering the Etosha National Park (ENP). AfriCat North is ideally situated in close proximity to the Communal Conservancies along Etosha’s south-western, western and north-western borders, supporting these farmers through improved livestock management and protection programmes, ultimately reducing livestock loss to large carnivores, in particular lions. In so doing, these programmes mitigate the farmer-lion conflict, reducing the number of lions destroyed. From this base, the Hobatere Lion Research Project and Environmental Education programmes continue to support the long-term survival of Namibia’s lions.





AfriCat UK represents the AfriCat Foundation in the United Kingdom. It is a registered charity and undertakes fundraising and awareness activities for the AfriCat Foundation. It also maintains a membership database of AfriCat supporters in the UK, maintaining their links with AfriCat and keeping them informed of AfriCat developments and achievements. Chris Packham, a well-known British naturalist, nature photographer, television presenter and author and Lorraine Kelly, a Scottish television presenter, journalist and actress, are AfriCat's patron. AfriCat UK has spent many busy years spreading the conservation message, raising awareness of our work, increasing the size of our e-database, encouraging visits to Okonjima as well as many fundraising efforts.

Main Activities

Fund raising activity takes many shapes and forms and AfriCat UK is very grateful to all who undertake and support these events.

Talks provide a great opportunity to share experiences and highlight the issues and raise funds. Maggie and Mike Talbot spoke at their local Church Group about their recent visit to Namibia the highlight of which was Okonjima. Simon Palmer, conservationist and photographer, has been donating monies raised at photography talks on his visits to

Okonjima. Chris Packham has offered AfriCat UK the chance to attend some of his talks, where we are able to offer him some logistical help in return for his promotion of AfriCat.

Sponsored events like marathons or half marathons, charity walks and bike rides provide great scope for fundraising. In April 2016, AfriCat UK was very grateful to Simon Anderson for running the London Marathon which secured over £3,500 for AfriCat's Lion Guards. Paul Stephens took part in the Annual Ride London event in July and raised £250. In 2017, Andrea Lawson, Georgina Eaton, Carey Widdows, and Janet Widdows all took part in Walk 4 Wildlife events and raised over £1,500. David Taylor rode Mont Ventoux and raised £432.



AfriCat UK decided to explore ways of making greater use of fundraising opportunities through digital media. Virgin money donations pages were set up for specific projects and AfriCat was signed up to things like 'text giving', 'memory giving', and a corporate giving option. Work continues in exploring and developing options.

In September, via Tyla Hoth, we supported the Lion Lives Matter campaign – AfriCat's first Crowdfunding appeal in the UK – this raised £2,160 in the UK and helped the Foundation buy Lion Lights for a kraal in AfriCat North.

#GivingTuesday (which began in the USA) was used to launch the appeal for the Onguta School in the Ehirovipuka Region of Namibia through the Adopt-A-Brick campaign. Funds with #Giving Tuesday for the school was £2,173.

Retail AfriCat UK found an ethical partner to help it develop an online shop selling mainly T-shirts and the first initiative was to sell special ones for World Lion Day on 12 August every year, and this was followed by another design for International Cheetah Day on 4

December. To increase sales, more coordinated marketing and improved designs are being explored.

Events have been a useful way to raise awareness and fundraise. In August 2016, AfriCat UK had a small presence at Bird Fair, courtesy of Wildfoot Travel. AfriCat UK had a stall at the Steppes Travel Festival in London in mid-September that proved to be popular and AfriCat features as a partner on the Steppes Travel website.

Charity Dinner: With the Bruce Trust, AfriCat UK co-hosted a charity dinner with some of the UK's Olympic and Paralympic rowers. Our thanks go especially to Andrew Triggs-Hodge OBE, triple Olympic Gold medallist, who working with James Tomlinson helped us raise over £9,000 on the evening. The money raised was allocated to support the work of the AfriCat Lion Guards and to fund a permanent building at Onguta School.



An on-line auction for a day for two people at the Wimbledon Tennis raised £700 in June 2016.

Wildlife photographer Simon Palmer produced a wildlife calendar from his own photos which raised for £120 for AfriCat.

For those supporters without email contacts we have introduced a new correspondent membership whereby for a membership fee of £25 a year AfriCat UK sends information in the post twice a year.

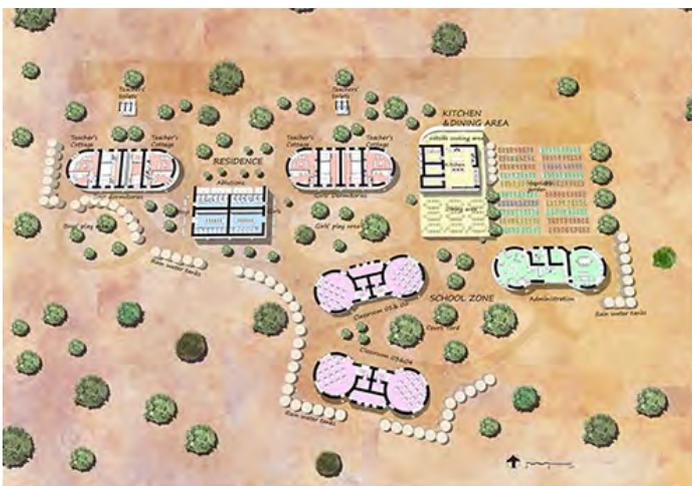
A one-off collaboration with Phantom of the Opera provided great publicity for the charity.

AfriCat UK was notified of two legacies from Mrs. Beverley Robin and from Mrs. Springford. These have made a substantial contribution to the work of AfriCat and monies from them helped with the Onguta school.

AfriCat UK was notified of funds being raised in memory of a young woman, 'Jenny', who had sadly died while on a conservation project. Following discussions with her family plans are being made for her legacy.

Major Achievements

Raising sufficient funds from a variety of methods to achieve the target and make a major financial contribution to the building of Onguta School. A single donation from the Netherlands of €25,000, helped to ensure that we met the initial target of N\$1 million to start phase 1 of the project.



Behind the scenes on going work to ensure the Charity meets its legal commitments and keeps abreast of changes and developments within the charity sector.

Maintaining and developing the e-database of UK supporters of AfriCat. These supporters were sent 10 AfriCat UK e-newsletters. In addition, two hard copy newsletters for supporters who do not use e-mail were sent out and well received.

The TUSK Trust was one of AfriCat's earliest supporters, and provides finance for an array of the Foundation's projects. In 1999, it co-sponsored the first electrified perimeter fence, which kick-started the Cheetah Rehabilitation Project. TUSK was the first group outside of Okonjima that believed in the Foundation's vision that an 'orphaned' cheetah could learn how to hunt through trial and error, and with support and time, hone its skills to become independent.

Since 2012, TUSK has been the main sponsor of AfriCat's Environmental Education Programme. The programme is an enormous success, exposing young Namibians to some of the major environmental and conservation challenges facing their generation. The programme is set to expand to increase the number of learners who pass through its doors.

Constraints & Challenges

- AfriCat UK's progress was made against a background of greater competition for funds and declining levels of giving to charity in the UK.
- The decline of the value of the £, following the result of the Brexit vote in the UK, has hit the value of the money we send to Namibia.
- The AfriCat UK Shop has yet to yield the sort of returns hoped for – AfriCat UK will seek a way to produce better designs and then ensure that the shop is marketed through all of AfriCat's digital media outlets.

Future Plans

- AfriCat UK will endeavour to gain increased levels of donations from corporations.
- To ensure AfriCat UK complies with the General Data Protection Regulations in the UK.
- To launch an appeal to raise funds for a Mobile Vet Clinic for the AfriCat North area – this we think will be our main campaign for #Giving Tuesday 2018-2019.
- To continue to attend relevant events to promote the AfriCat message.

- Develop more ways to get support for AfriCat through digital media.
- Develop a Virgin Money Giving site for Lion Guards – the keepers of the wilderness.
- Keep the issue of the Onguta School Building to the fore of our publicity by supporting phases 2 and 3 of the development when required.
- Work with Blair Drummond Safari Park on their Big Cat weekend and support their fundraising efforts to buy a GPS satellite collar to help track lions around Etosha National Park.
- Continue to maintain the AfriCat UK website and email queries seeking out and responding to options for promoting AfriCat.
- Work with Walk 4 Wildlife on activities for 2018



AfriCat USA

AfriCat USA is currently in the process of being legally registered in the US as a legal not-for-profit organisation. Once this registration has been achieved, full-scale awareness raising and fundraising activities will be established under various 'chapters' throughout the United States.

AfriCat America registered in the state of Illinois with 5 new Directors on board.

AfriCat and Okonjima – A Symbiosis at Work

Okonjima, home of the AfriCat Foundation, was established as a small 'guest farm' in 1986. Okonjima, meaning "place of the baboon" in the Herero language, is an extensive tract of land nestled among the Omboroko Mountains, about seventy kilometres south of the small town of Otjiwarongo. For the last 35 years, Okonjima has been in the hands of the Hanssen family. Today, nearly 20 years after Wayne, Donna and Rosalea Hanssen took over the cattle farm from their parents, the original farm has grown in size to 20,000 hectares and hosts a guest lodge business. The cattle have gone, grasslands are returning, and wildlife abounds. Although they are separate entities, the relationship between Okonjima, its Nature Reserve, and the AfriCat Foundation is one of symbiosis.



In this, Okonjima owns and manages the land/nature reserve and operates the tourism business, while the AfriCat Foundation provides a unique opportunity for guests and sponsors to view large carnivores, as well as the work of the Foundation. In turn, AfriCat receives an income from the revenue generated by tourism, which contributes to covering the running costs of the organisation as well as an opportunity to obtain additional income from visitors, having witnessed the Foundation's work with carnivores in Namibia first hand, through on-going sponsorship programmes.



II. 2014 - 2016 Annual Report

Programme 1: Research

Objectives

AfriCat undertakes and supports research on the carnivores of Namibia which will contribute to their long-term conservation. The direction of the Foundation's research programme is guided on the larger scale by the Government of Namibia's national policies and species plans while, at the local level, it focuses on issues which the AfriCat/Okonjima symbiotic relationship has identified as essential for the long-term sustainability of the Okonjima Reserve and the animals in it.

The major areas of research which AfriCat is currently focused on include:

- a) Human-wildlife conflict (causes and mitigation measures),
- b) Captive carnivore welfare, and
- c) Inter- and Intra-specific carnivore interactions within an enclosed nature reserve.

AfriCat's research programme is guided and coordinated by a Scientific Committee, formed in 2013. Members of the committee include conservation experts, wildlife veterinarians, AfriCat full-time staff, and Foundation trustees. Project proposals are

approved by the Committee on a merit basis and their relevance to the Foundation's goals. Research is carried out both by AfriCat staff members and visiting scientists.

The animals, facilities, and staff at AfriCat provide a fairly unique setting in which to undertake both basic and applied research on threatened and endangered wild carnivores in a natural setting, but with opportunities to also learn from captive and semi-captive animals.



Key Issues

- 1) Indicators of optimal health of captive and free-ranging carnivores:
 - a) Dental health;
 - b) Parasite loads.

- 2) Human-Wildlife Conflict:
 - a) Establish lion population density in the Hobotere area of northern Namibia;
 - b) Develop approaches to resolve Human-Wildlife Conflicts through stakeholder participation.

- 3) To develop an approach to promote conservation through tourism and education with specific emphasis on the complexities of carnivore conservation within a rangeland production area:
 - a) To understand the relationship between a range of predators and their prey in a semi-arid rangeland;
 - b) To understand how predators select and utilise available prey to ensure population growth;
 - c) To understand how predators interact during competition for food and habitat;
 - d) To improve our understanding of the requirements of the different prey species to sustain healthy populations in the presence of a wide variety of predators.

- 4) To assess the density and population size of leopards (*Panthera pardus*) in the Okonjima Nature Reserve using photographic capture-recapture sampling and provide scientific data on their demography as well as spatial and temporal distribution patterns.
 - a) To determine leopard density and population size via a capture-recapture framework using remote camera traps
 - b) To determine the demography of leopards within the Okonjima Nature Reserve
 - c) To develop a dataset that can be applied as a baseline for comparisons to similar areas
 - d) To develop a long - term population monitoring programme

- 5) Long-term study of sympatric carnivore interactions within an enclosed conservation area with specific emphasis on leopards (*Panthera pardus*), cheetah (*Acinonyx jubatus*) and brown hyena (*Hyaena brunnea*). Interactions between predators, both within and between species will be studied with the aid of VHF and GPS collars and camera traps. The study will assess the extent of intraguild predation and determine the size of home ranges and territories for individual animals within the reserve and how they relate to those of other predators.



In addition the study will provide valuable information on which to evaluate the success of carnivore rehabilitation on the reserve.



Project 1 - Programme 1: AfriCat Hobatere Lion Research Project (AHLRP)

Objectives

In order to manage Human Wildlife Conflict (the farmer-lion conflict) effectively and efficiently, it is crucial to have adequate and relevant information. AfriCat North is involved in programmes which will establish population density and activity patterns of lions living around human settlements in northern Namibia.

It is believed that the lion populations of the Etosha National Park and Kunene Region are FIV-free (Feline Immuno-deficiency Virus / Feline AIDs); one of the few FIV-free lion population in Africa. This FIV-free status makes the Etosha lion population an extremely important founder population source.

The Hobatere Concession Area lies adjacent to western Etosha National Park and is government-owned and managed by the Ministry of Environment & Tourism. Two Communal Conservancies share the potential to develop tourism ventures within this concession area. Between 1989 and 2011, the Hobatere Tourism Concession was privately managed. The Concession was, however, terminated in May 2011 after a fire destroyed the main lodge building. No monitoring of the lion population has since been undertaken.

The objective of the Hobatere Lion Research Project is to conduct a study of the Lion (*Panthera leo*) population within the Hobatere Concession Area and the movements

between the Hobatere Concession Area, western Etosha National Park, and adjacent communal farmland.

Specific objectives are:

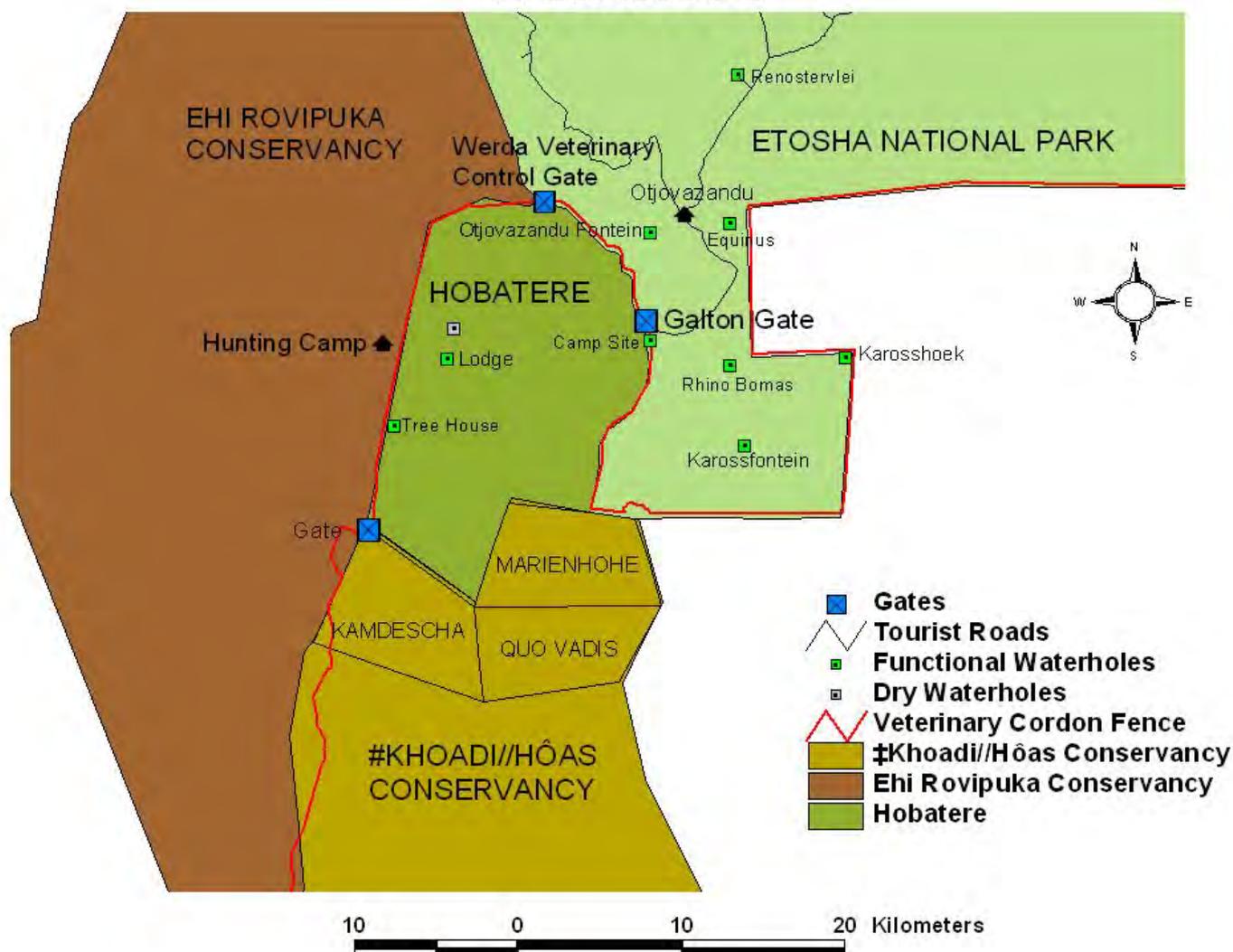
- To understand the population dynamics of the lions utilising the Hobatere Concession Area, and how one or more of the prides found within Hobatere relate to the greater Kunene population and/or the western part of Etosha National Park;
- To understand the dispersal and or migration/immigration patterns of lions within Hobatere and the surrounding areas;
- To understand the role of:
 - water and prey availability within Hobatere and the surrounding areas;
 - fencing surrounding Hobatere and Etosha National Park;
 - human pressure from outside of Hobatere;
 - hunting within the surrounding areas;
 - how these factors affect the movement of the so-called 'Hobatere lions' and the associated human-lion conflict within the area;
- To test the effectiveness of human-lion conflict mitigation measures, e.g. kraals, herding, geo-fencing/early warning systems, and translocations.



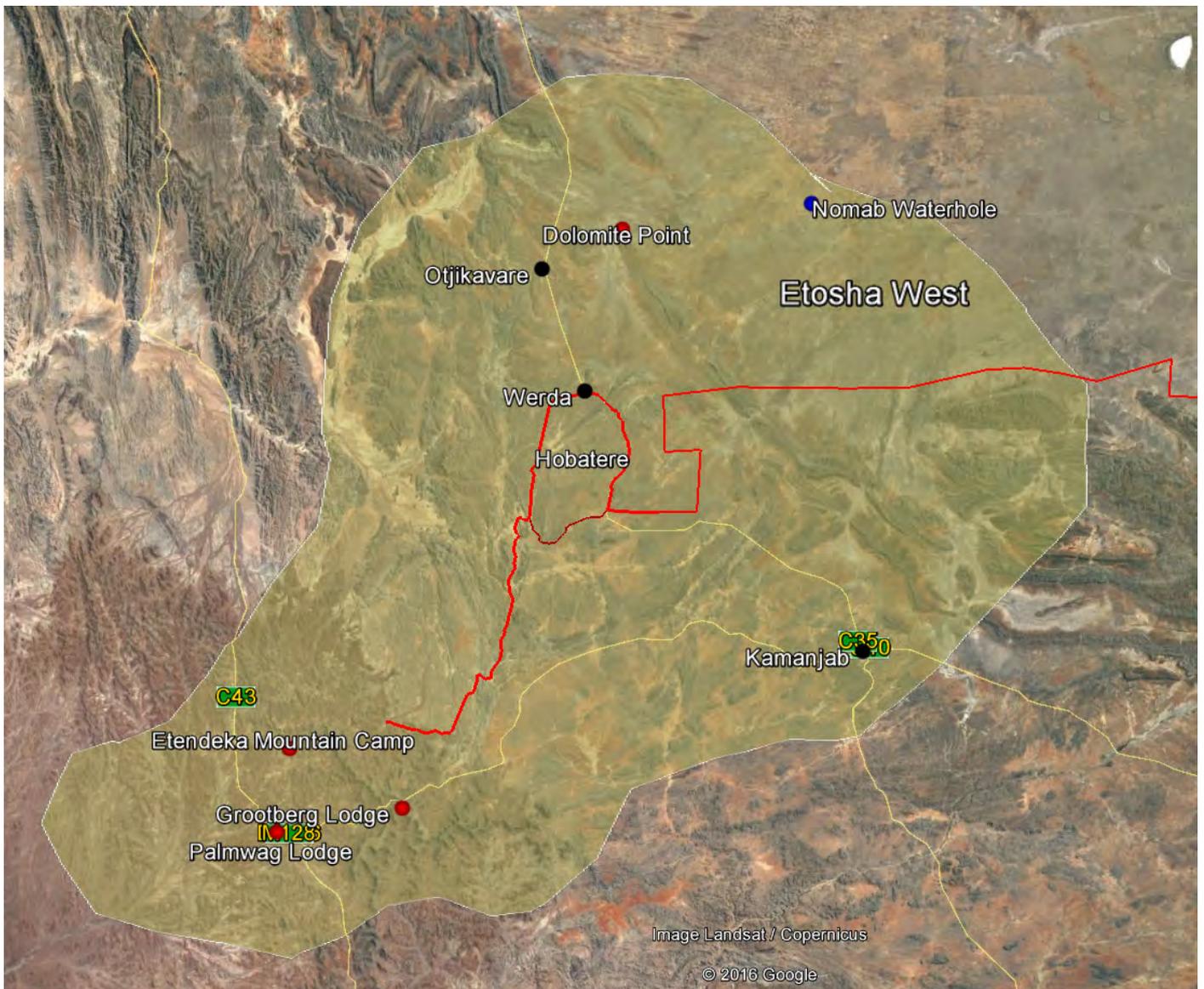
Project Location / Study Area

- (i) Hobatere Concession Area and communal conservancies to the north, west and south, including the Ehirovipuka, Orupupa, Omatendeka, Anabeb and !Khoa di //Hoas Conservancies.
- ii) Western Etosha National Park (restricted area, hereafter Etosha-west), including adjacent free-hold farmland to the south (farms Wildeck to Helaas), adjacent communal conservancies to the south, (!Khoa di //Hoas), to the west, (Ehirovipuka) and to the north-west, (Sheya Shuushona).
- iii) Included within the Omatendeka Conservancy, the Etendeka Concession.
- iv) Palmwag Concession Area: collared lion range including the Obob, Kawaxab, Aub, Gaes, Uniab and Klip Rivers

Hobatere



Map: The Hobatere Concession Area & Surrounds, including water points. *Courtesy of Ministry of Environment & Tourism, Etosha Ecological Institute, 2014*



Main Activities

This first phase of camera-trapping (2013-2014), revealed the *initial identification and* basic structure of the groups inhabiting the 34,000 ha Concession. During Phase 2, (2014 – 2015), one additional waterhole in Hobatere North (Tree House) became functional. By approximately mid-2014, the lions had calmed down somewhat, enabling digital photographs and sightings. Phase 3, (2015 – 2016), a total of 15 trail cameras were deployed within the 34,000 ha study site: constant sites included 3 artificial waterholes, the Mine Road, the Hunters’ Road Gorge, Etosha Roadside Campsite-bait, Tree House and Airfield bait-sites. 2-4 additional trail cameras were intermittently utilised at kill sites, fence-breaks, livestock kraals, wildlife-trails, and at one den-site.

Known lions of the Hobatere Concession Area, Etosha-west, and Omatendeka Conservancy:
May 2013 - February 2016

Study area total: 300 km²

Number marked /collared lions: 10 (including Omatendeka Conservancy)

Number of known, unmarked lions: 17

Age Groups / Sex Groups: Adult female: 5 (incl. 1 female, Omatendeka Conservancy)

Adult male: 4 (incl. 2 Males, Omatendeka Conservancy)

Sub-Adult female: 8

Sub-Adult male: 4

Large cubs (approx. 18 mths): 4

Small cubs (born approx. January 2016): 2

Total: 27

Known mortalities: 1 cub + 2 Sub-Adult females

Summary of Lion Density & Population Size in Hobatere, Etosha-west and extended study area



- The two loosely-associated prides, Hobatere North and Etosha Roadside, identified in Phase 2 (2014-2015), remain resident within the Hobatere Concession, with some

cross-border movement onto communal farmland to the south, west and north as well as into Kaross Block and Etosha-west. As far as can be ascertained (sightings, camera trap footage and reports), the prides still comprise two adult lionesses each and their offspring. Neither pride has a resident male.

- The territorial males Hpl 2 and Hpl-6 are occasionally seen with this pride but are not resident for more than 12-36 hours at one time.
- Hpl-6 lost his initial VHF-collar and was re-collared using a GPS-Satellite unit, June 2015; he is the presumed father of the four sub-adult females and the three young cubs of the Hobatere North Pride. It is uncertain whether he fathered the cubs of the Etosha Roadside Pride (prev. Hobatere Campsite). Whilst Hpl-6 was immobilised, we discovered a serious injury to his lower right jaw, probably a kick by zebra, giraffe or such-like; his condition has remained stable but since this injury he seems to have relinquished dominance to his brother, Hpl-2.



- A young male, Hpl-9, (est. 4-5 yrs) was first seen (trail camera footage) on free-hold farmland, together with two unknown females (one Adult + one sub-Adult), during July 2015; they remained on farmland until the male (Hpl-9) and the sub-adult female (est. 2-3 yrs) were immobilised on farm Blyerus and returned to Etosha-west (Nomab water-point, approx. 60 km from darting location). The male was collared but the female seemed too slight so only Morphometric data was noted and biological samples taken. Hpl-9 crossed the border onto free-hold farmland within 3 days after his first relocation, returning to his core home range on day 14.

He was recaptured and taken to Sonderkop in Etosha-west from where he returned to farmland within 7 days; after 23 days trapped on farmland behind electric fencing (farms Ermo & Robyn), Hpl-9 was collared for a third time (23.10.2015) and transported approx. 360 km eastwards to Goas waterhole near Halali, in Etosha. Since his third relocation, he has mostly remained within the Park boundaries, occasionally crossing onto farmland and wildlife reserves along the southern boundary, returning

to Etosha-west on 31 December, where he has settled south-east of the Dolomite Range. The young female was not seen again after the first relocation.



- September 2015 marked the arrival of two young males to Hobatere North; approx. 3-4 yrs of age, these males spend a large portion of their time with the SPOTS-Pride. The sub-dominant male was collared 15.12.2015 at Tree House waterhole, Hobatere North. One or both males have been observed mating with two of the SPOTS-Pride sub-adult females; we suspect that the small cubs born approx. January 2016, were fathered by one of these males.



- The territorial males, Hpl-2 + Hpl-6, still dominate the Hobatere Concession Area, Etosha-west and Kaross Block, with the younger males leaving the area when the territorial males arrive.
- The Omatendeka Lions: The Etendeka Concession, Omatendeka Conservancy: Hpl 3, a male, collared on 27.05.2015, remains elusive and spends most of his time in the Obab River area, Palmwag Concession. The one female, Hpl- 4 and the second male, Hpl-5, were collared 28.05.2015, form a loosely-associated pair, with Hpl-4 part of pride comprising 2-3 females. Hpl-4's range includes the Gaes, Kawaxab and Barap river systems as well as the Etendeka Concession Area. Hpl-5's range extends to approx. 30 km north of the Etendeka Mountain Lodge, within the Etendeka Concession, including the Gaes, Kawaxab and Uniab river systems, occasionally moving eastwards, once visiting the Klip River in the Grootberg Range.
- Immobilisation Hpl-11 (22.02.2016): The AHLRP was initiated in June 2013: T-I (Hpl-11) was one of the first lionesses identified in the Hobatere Concession Area. Vague history: she formed part of the historical Hobatere pride, possibly collared in 2007,

known then as 'the Huntress' (year of birth possibly 2003?); according to personal communication with the previous Hobatere Concessionaires, Hpl-11 is the mother of X1 (brand-marked 2007), a lioness of the Hobatere Campsite / Etosha Roadside group.

- Hpl-1 (SPOTS) Collar replacement, 29.01.2016 (previously collared 2013 & 2014).
- Hpl-2: (Volkel) Collar replacement, Dec 2015 (first collared 2012, 2014).
- Hpl-6 (Masialeti) Collar replacement June 2015 (first collared 2012).



Activity patterns of lions located in Hobatere Concession Area, Etosha-west & Omatendeka Concession

The AfriCat Hobatere Lion Research Project (hereafter AHLRP) commenced at the end of the 2012/13 rainy season, where the total precipitation in the Hobatere area was well below average (less than 250mm / annum). The 2013/14 rainfall again proved to be below average (average = 280-320 mm), the 2014/15 average rainfall measuring 280 - 380 mm, with minimal general rains and vast areas with under 200 mm.

2015/2016: The drought has continued into its 4th year, with much lower precipitation than 2014/15; by 29 February, most areas had received less than 100 mm during December, with no measurable precipitation thereafter.

Lion activity patterns are influenced by:

a) Only three wildlife water points within the 34 000 ha are Etosha Roadside (Campsite) Waterhole, Hobatere North Lodge Waterhole and Tree House; the Etosha Roadside lions also make use of water-points in Kaross Block and Etosha –west;

b) Large numbers of livestock, mainly cattle, horses and donkeys, moved into the Hobatere Concession Area approx. August 2015 due to lack of grazing and browse on surrounding communal farmland; recent rains, albeit minimal, during December 2015 - February 2016, have encouraged livestock to return to farmland for the interim; inevitably, they will return to graze within Hobatere by mid-year, unless the southern boundary fence is repaired;

c) Herdsmen do not collect their livestock during late afternoon to kraal and keep them safe from lions and other predators after dark. Thus, most of the Hobatere lions have become habituated to hunting livestock within their protected areas, at times following the livestock onto said farmland;

d) Female reproductive cycles: Territorial males and newcomer males' movement is influenced by females in oestrus.

Patterns of activity were recorded both via trail cameras placed strategically, the 12-hourly GPS-Satellite downloads, and observations by the research team, MET Rangers, campsite assistants and farmers adjacent to the Hobatere boundary fence. After months of baiting at the lodge waterhole, one lioness was successfully collared using a GPS-Satellite Collar.

After a month the GPS system settled into regular downloads via satellite every 12 hours, giving us up to 12 locations for SPOTS and her group for the previous 24 hours.

It is this location plotting that will help us predict when the group is straying too close to the boundary fence and the neighbouring farmland.

In line with the objectives, the Hobatere Lion Research Project will soon be in a position to provide the farmers with essential information on the lions' whereabouts. A number of communal farmers are positive that the collaboration between the Ehirovipuka Conservancy and AfriCat will alleviate the farmer-lion conflict along the Hobatere borders.



Major Achievements

Final Analysis of Home Range Data:

Hobatere North and Roadside females: females tend to mostly remain within a small part of their total area;

Hobatere North and Etosha West males: these males differ from the females in that they show a level of presence throughout their range, which is a sign of territorial behaviour;

Omatendeka Lions: one male (Hpl-3) tends to remain west of the Etendeka Mountains, whereas Hpl-4 (female) and Hpl-5 (male) remain relatively close to the Etendeka lodge and have similar distribution patterns, although the male's range is larger, moving further north;

Relationship between travelling speed and temperature:

The males tended to travel further per hour than the females and showed a peak of activity between 15 degrees Celsius and 30 degrees Celsius. Above 35 degrees Celsius very little movement is recorded for either sex.

Hobatere Concession Area and Etosha-west: Distribution patterns and land use of seven lions clearly indicate range cores within Hobatere and Etosha-west, with
i) viable populations within the above-mentioned protected areas;
ii) no evidence of viable populations within 10 -20 kms outside thereof;

- iii) cross-border movement is evident but temporary;
- iv) cross-border movement is influenced by livestock grazing within lion habitat and unprotected livestock alongside protected areas, despite AfriCat's Livestock Protection Programme with 20 kraals built for 'hot-spot' farming communities;
- v) porous protected area boundary fences encouraging back and forth movement of livestock and easy exit for lions.

Phases 3 + 4 (2015-2017): Human-Wildlife Conflict Mitigation measures include:

1. Erecting strong, 2m high nocturnal kraals or repairing and upgrading existing kraals, for use when the lions are in the area: to date, 20 such kraals have been built in the Ehirovipuka and !Khoa di //Hoas Conservancies;
2. Establishing a system whereby farmers re-instate herdsmen to take care of their livestock during the day whilst in the field and to kraal them at night: payment methods should be re-visited;
3. 'Conservation Education', whereby the youth as well as the adult community member accept the lions' role in a balanced ecosystem and understand the value as a sustainable tourist attraction;
4. 'Conservation Agriculture' courses and work-shops should provide sound arid-adapted farm management, animal husbandry and improved livestock protection programmes, especially once the drought has broken;
5. When funding allows, developing a more extensive Lion Guard Programme, whereby conservancy members take on the role of 'keepers of the wilderness'.



Photographic Tourism: With the recent development of two photographic tourism ventures within the Hobatere Concession area, a) Etosha Roadside Campsite and b) the Hobatere North Lodge, the small number of known lions within Hobatere should be protected and regarded as high photographic tourism value; these lions will only become valuable to the communities once the revenue generated filters down to the individual.

Constraints & Challenges

Further studies have established that the regularity of lion movement onto farmland from the Hobatere Concession, has increased since August 2015: the persistent drought resulted in widespread migration of wildlife, with the lions naturally following their prey cross-border; the lions have become habituated to livestock as easy prey, causing them to kill inside of the protected area and outside.

As far as can be ascertained through the monitoring of the 10 marked/collared lions, these lions would be regarded as 'occasional' stock-raiders, chiefly due to habituation caused by livestock grazing inside of protected areas, porous boundary fences and poor livestock management on communal farmland.

Despite the presence of communal kraals (bomas) in the 'hot-spot areas' (built by AfriCat, with Commitments signed with the headmen), large numbers of livestock still remain unattended, in the field at night: reasons remain unclear but it is evident that the lack of graze keeps animals in the field for longer periods, farmers leaving their stock to search for the last morsels, livestock too weak to return to the homesteads and safety.



Future Plans

Due to the persistent drought, the implementation of certain plans and programmes remain tenuous until the adequate rainfall eventuates.

Extension of Project into the Ombonde – Palmfontein area, Ehirovipuka Conservancy: Since the successes of the AfriCat Lion Research Project and the Human-Wildlife Conflict Mitigation & Community Support Programmes have become evident, Conservancies further afield have requested AfriCat's support and advice, including requesting monitoring of lions in their respective areas.

The studies carried out since 2013 by the AfriCat Hobatere Lion Project (AHLRP) indicate strongly the natural movement of lions along the Otjovasandu and Ombonde Rivers, as well as where the rivers converge south-west of the Hobatere Concession Area; into the fourth year of drought, these ephemeral river systems offer the last source of grazing and browse for both livestock and wildlife.

Reports of at least 4-6 lions frequenting the Otjeombonde waterhole have been received, after the loss of 5 lions at the hands of a farmer illegally residing and farming in the Ehirovipuka Core area west of Palmfontein; evidence of lion movement have also been observed entering the Hobatere Concession from the south-west.

Funding has been sourced for more collars and trail cameras, which will enable AfriCat to establish lion numbers, age and range, as well as identify problem areas regarding improved protection of livestock, increasing tolerance towards lions.

Extension of the project westwards (including Orupupa, Omatendeka, and Anabeb Conservancies) with the Grootberg Range as ecological boundary, has been discussed with Dr P. Stander of the Desert Lion Project.

AfriCat has developed an innovative Communal Carnivore Conservation Programme (CCCP) whereby the communal livestock farmers are encouraged to adopt improved livestock protection methods, effectively reducing livestock losses. Data received from the GPS-Satellite Collars may be used as an Early-Warning System to further minimise losses.



Project 2 - Programme 1: Research in the 20,000 hectare (200 km²) Okonjima Nature Reserve.

Objectives

To develop an approach to promote conservation using tourism and education as catalysts, with specific emphasis on the complexities of carnivore conservation within a rangeland production area.

The immediate mission is to turn the 20,000 hectare Okonjima Nature Reserve, which was recently denuded farmland, back to its natural state last seen, perhaps, 200 years ago. The approaches engaged in this regard must be sustainable and a benefit to local communities for it to survive the tides of social and environmental change in Namibia. Researching herbivores and carnivores within the Okonjima Nature Reserve, particularly cheetahs, leopards, and brown hyenas, will help future farming communities and, ultimately, reduce the numbers of predators killed on farmland.

The objective of AfriCat's research in the 20,000 hectare Okonjima Nature Reserve is to develop practical solutions to the farmer-carnivore conflict and contribute to the understanding of herbivore-carnivore interaction for the benefit of animal conservation.

The sub-objectives are:

- a) To understand the relationship between a range of predators and their prey in a semi-arid rangeland;
- b) To understand how predators select and utilise available prey to ensure population growth;
- c) To understand how predators interact during competition for food and habitat;
- d) To improve understanding of the requirements of the different prey species to sustain healthy populations in the presence of a wide variety of predators.

Main Activities

AfriCat's current research projects in the 20,000 hectare Okonjima Nature Reserve include:

Long-term study of sympatric carnivore interaction within an enclosed conservation area at Okonjima Nature Reserve (ongoing project)

Aim of the research:

A long term study of the predator population of the Okonjima Nature Reserve is proposed. Interactions between predators, both within and between species will be studied with the aid of VHF-telemetry, GPS-collars (if funding becomes available) and camera traps. The study will assess the extent of intraguild predation and determine the size of home ranges and territories for individual animals within the reserve and how they relate to those of other predators. In addition the study will provide valuable information on which to evaluate the success of carnivore rehabilitation on the reserve.

Objectives:

- To evaluate interspecific competition and interactions of sympatric large carnivores within an island bound conservation area;
- To assess species-specific habitat preferences and spatial utilisation patterns;
- To analyse individual-specific home ranges and assess the degree of inter and intra-specific territory overlap;
- To assess species-specific feeding habits and prey selection;
- To observe changes in predator population dynamics and composition over time;
- Collecting morphometric data on Okonjima's carnivores;
- Collection of biological samples of wild-caught carnivores for storage in Okonjima's bio bank for future research;
- To assist in evaluation of the current park management and development of long-term predator and prey management strategies.



1. Behavioural ecology and management-induced niche shift of brown hyena in a closed reserve; implications for conservation management (project start: January 2018)

Aim of the research:

The research project aims to gain an in-depth understanding of the behavioural ecology of brown hyena living in an enclosed reserve (Okonjima Nature Reserve), with specific respect to home-range size, social organisation and density, occupancy and habitat preferences activity patterns and spatial and temporal niche partitioning with sympatric carnivore species. Additionally, the genetic diversity and disease prevalence of the population will be studied.

Objectives:

- Home range estimation of brown hyenas present on the Okonjima Reserve through the use of fine resolution data obtained from GPS collars fitted to a number of adult animals;
- Determination of seasonal changes in home range use and range by comparing GPS data collected in the dry and wet seasons and calculating the degree of overlap between seasonal ranges;
- Estimation of overlap of home ranges of different clans (if a clan structure is present) occurring on Okonjima Reserve;

- Density estimation of brown hyenas occurring on Okonjima reserve through the use of camera trap surveys and spatially explicit capture-recapture analysis of camera trap data;
- Estimate the annual population growth rate of brown hyenas occurring on Okonjima by repeating yearly density studies;
- Determine clan size and social structure of brown hyenas on Okonjima using camera trapping and GPS collar data;
- Occupancy and detection probability estimation and habitat preferences of brown hyenas occurring on Okonjima through the use of maximum likelihood occupancy modelling;
- Examine brown hyena-sympatric carnivore interactions, e.g. cheetah and leopard, by running two species interaction occupancy models;
- Ascertain the disease prevalence within the enclosed brown hyena population, following a full epidemiological disease study, using blood samples acquired when sedating brown hyena for GPS collar fitting;
- To compare the genetic diversity of those individual brown hyenas living within the Okonjima Nature Reserve to free-ranging individuals across Namibia, by comparing samples taken from other research groups - e.g. IZW.





2. Examining genetic diversity of different carnivore species from blood collection from the time the AfriCat Foundation came in existence, including family tree building of the species: leopard, cheetah, lion, brown hyena, wild dogs (Blood bank IcPanthera project)

Aim of the project:

The aim of the project is to examine the genetic diversity of different carnivore species that are inhabiting the Okonjima Nature Reserve, an enclosed nature reserve that prohibits natural migration through the erection of a surrounding predator-proof fence, via the utilisation of blood samples that have been collected and stored at the AfriCat Foundation over the last 22 years. The analysis is aiming to assess the relatedness among individuals and to ascertain the disease prevalence in the reserve and develop an epidemiological survey in collaboration with genetic and veterinary laboratories in Namibia and South Africa.

Objectives:

- Examining the genetic diversity in an enclosed reserve prohibiting migration
- Ascertain disease prevalence
- Development of an epidemiological survey

3. Rehabilitation of degraded areas

Aim of the project:

This long-term study will investigate different methods of rehabilitating degraded areas. Standard evaluation techniques such as the Landscape Function Assessment (Ludwig et al. 2004) will be used to determine the success of different approaches.

4. Herbivore (prey) population monitoring project

Aim of the project:

In order to be able to support a prey sustainable population in the presence of predators it is essential to understand the resources available to the different prey species and to understand their habitat preferences for foraging and resting. Further, in order to be able to sustain these aims, the following aspects will be addressed by AfriCat or through directed research projects

Objectives:

- Classify the vegetation and habitats in the study area to be able to map the resource areas for the different herbivores according to their requirements;
- Establish how the different prey species utilise these habitats in the different seasons and under different rainfall conditions;
- Determine the number of animals which can be supported by the environment on a yearly basis and recommend management actions accordingly;
- Determine the increase in available resources through rehabilitation projects.



Major Achievements

- The purchase of an additional 15 remotely triggered wildlife camera traps (Cuddeback Triple Flash, model C123) is enabling the extension and in-depth monitoring of the carnivore guild inhabiting the Okonjima Nature Reserve with specific emphasis on Okonjima's leopard and brown hyena population.
- 51 VHF radio collars from different companies were purchased in the last two years. The regular purchase of VHF collars enables us to fit additional individuals with radio collars or replace malfunctioned collars on already collared individuals and maintain the research and data collection continuous.
- Between March 2016 and February 2018 16 leopards were newly collared and 18 leopards re-collared to the malfunctioning of the previous collar.



- Collaring 11 brown hyenas.
- Upgrade, improvement and streamlining of steel-mesh box traps utilised for the capture of leopards for collaring purposes.

- Initiation of the “Behavioural ecology and management-induced niche shift of brown hyena in a closed reserve; implications for conservation management” - study led by Dr. Sarah Edwards.
- Initiation of a pilot study investigating the population size and ecology of the ground pangolin (*Smutsia temminckii*) in the Okonjima Nature Reserve led by Dr. Diethardt Rodenwoldt.



- A 3-day training course for ArcGIS 1, an introduction to GIS (Geographic Information System), was completed by team members of the AfriCat Foundation. The course explained what GIS is and what can be done with it. GIS gives you the opportunity to create maps, explore and analyse the data behind the maps and learn easy methods to share your maps and analysis results. The team learned how to gain a solid understanding of how GIS maps and ArcGIS tools are used to visualise real-world features, discover patterns, obtain information and communicate that information with other parties.
- An area of 430 hectares was relieved from bush encroachment.
- Two aerial game censuses have been conducted between 2016 and 2018 in order to get reliable figures for (1) the total number of game in the park and (2) total number of individuals for each species. The main objectives for the implementation of an annual game census are: (i) to follow trend numbers in population size, (ii) to determine population dynamics, (iii) to evaluate sex ratios for management purposes and (iv) to evaluate food biomass availability of different species in a closed ecosystem.

- Based on the results of the aerial game censuses, an ascertained number of game has been captured and relocated. Due to the lack of apex predators in the reserve like lions, certain antelope species (e.g. eland, zebra) have no natural enemies and hence, show a rapid increase in numbers. Overpopulation often results in overgrazing where wildlife excessively and continuously feeds on vegetation without given enough time to recover. In order to maintain the productivity and biodiversity of the land, a set number of individuals of specific species will be captured and relocated on an annual basis.
- Two new water points have been built resulting in a more even distribution of game animals and thus relieving pressure from the deterioration of the veld through trampling, overgrazing and erosion.

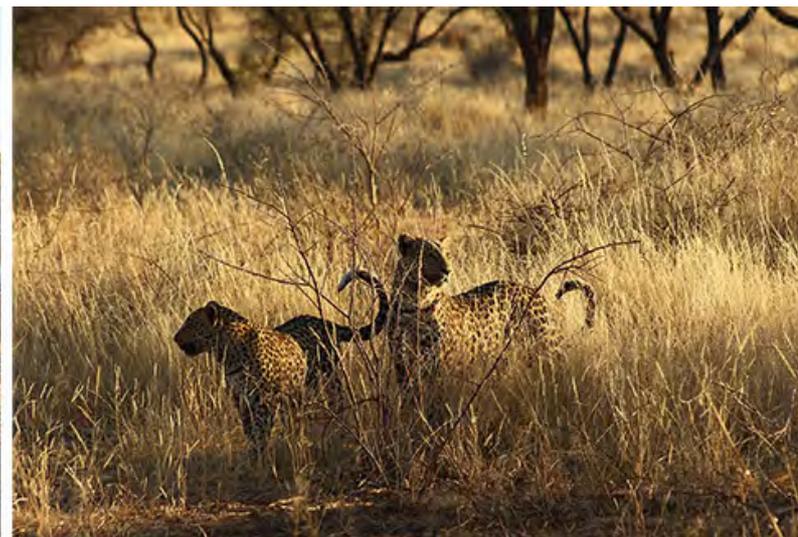
Constraints & Challenges

- The quality and functionality of the collars provided by the different companies differed to a large extent. Lack of performance, a shorter than assured life span of the battery and mechanical problems resulted in the purchase of more than initially anticipated collars.
- Due to the lack of present researchers and the malfunctioning of tracking devices, the pangolin study had to be discontinued and put on hold until occurring problems are addressed and solved.
- The prevention of re-growth on previously de-bushed areas.
- De-bushed heaps are eradicated by a controlled burning programme, resulting in a sterile soil with no re-growth of grass. A practical solution needs to be found that will help maintain grassland.

Future Plans

- Extend the scope of research to other species such as aardwolf and armadillo to gain a comprehensive understanding of the ecosystem and the species occurring in it.
- The recommencement of the initially started pangolin study in combination with the recruitment of an additional researcher or student who can assist the research team with the data collection.
- Purchase of GPS collars for the monitoring of the leopard population if funding becomes available.
- Purchase of additional field vehicles for additional researcher to ensure a thorough data collection.
- To relieve the Okonjima Nature Reserve from more bush encroachment and to create more open plain areas.

- The on-going relieve from bush encroachment and opening up of 1/3 of the 20,000 hectare Okonjima Nature Reserve. Opening 1/3 into mixed woodland and leaving 1/3 bushveld thickets – thus, with 500 hectares of de-bushing completed, the remaining target is circa 6,500 hectares.





Project 3 - Programme 1: Research in the AfriCat Carnivore Care Centre

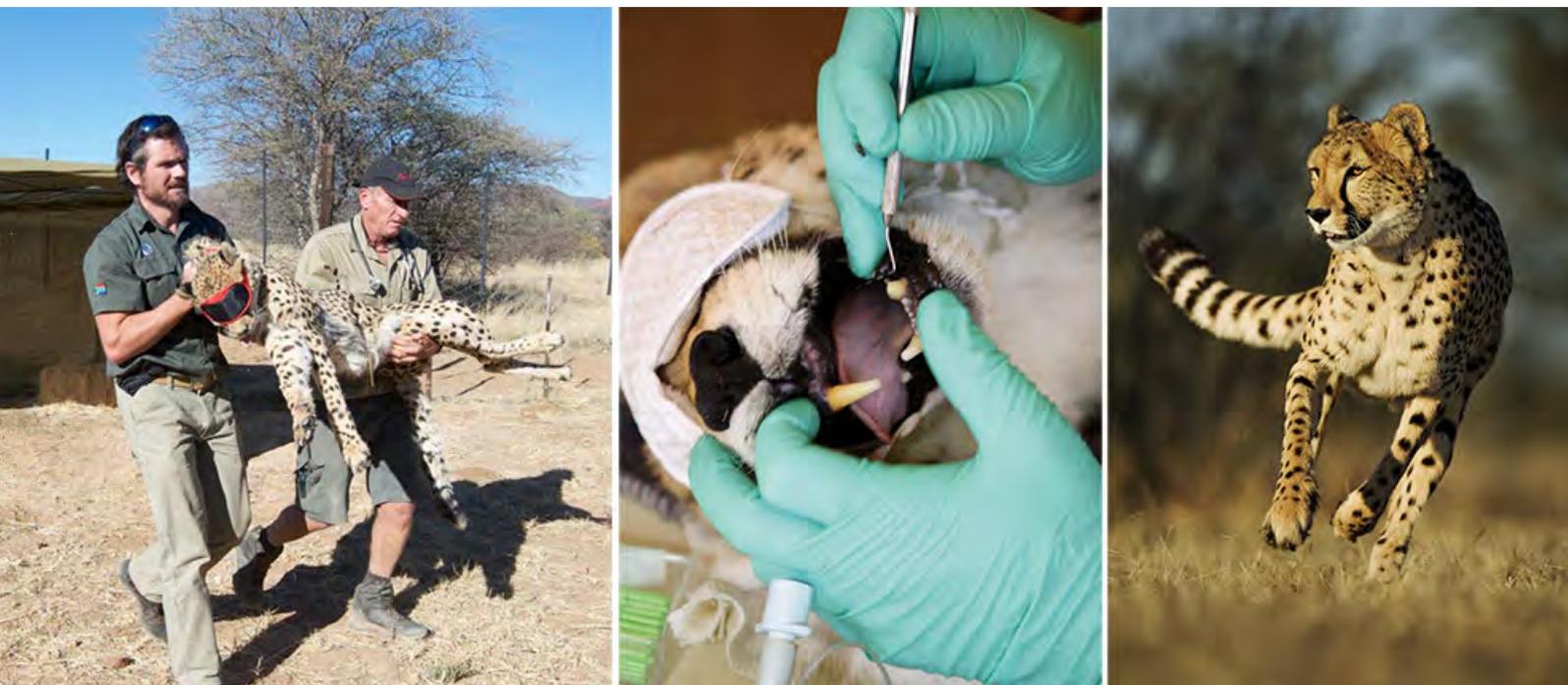
Objectives

The animals, facilities, and staff at AfriCat provide a fairly unique setting in which to undertake both basic and applied research on threatened and endangered wild carnivores in a captive, semi-captive, and a free-ranging environment. Optimal health is central to both animal welfare and conservation and is therefore a key focus of research.

In captivity, cheetahs are known to frequently suffer from a number of unusual diseases not typically seen in other large captive felids. These include glomerulosclerosis, renal amyloidosis, oxalate nephrosis, lympho-plasmacytic gastritis, veno-occlusive disease, splenic myelolipomas, cardiac fibrosis, and adrenal cortical hyperplasia with lymphocytic depletion of the spleen, as well as several ill-defined neurological diseases. Dental and oral diseases have also been seen frequently in this species and the relevance thereof, as well as the influence they may have on several of the previously mentioned conditions, is still unclear. Some of these chronic degenerative diseases eventually affect the majority of cheetahs in captivity and are considered to be the primary cause of morbidity and mortality in adult animals.

In contrast, the incidence of similar histological lesions in free-ranging cheetahs was found to be very low. Stress, lack of exercise, low genetic variability, and the provision of unnatural diets in captive facilities have been proposed as potential causal factors, but to-date convincing pathophysiological explanations for these diseases have been lacking or unsatisfactory.

Chronic diseases are often difficult to investigate due to the time span over which they develop and the complex biological interactions in living organisms that confound simplistic explanations. AfriCat has therefore proposed a three-pronged approach to clarifying the mechanisms of these idiopathic diseases in captive cheetahs.



Firstly, AfriCat plans to compare the metabolic profiles of captive cheetahs to those of their free-ranging counterparts. This is expected to highlight abnormal serum and urine metabolite concentrations in the captive animals, thus generating new hypotheses for further investigation. Secondly, AfriCat hopes to intensively study the health of the AfriCat cheetahs over a number of years to determine immune system function as well as disease progression and prevalence. Thirdly, AfriCat shall monitor the dental and oral health of these individuals over a period of time, which may assist in identifying underlying processes at play.

The aim of the study is therefore to establish baseline health data using a broad range of technologies and then to collect annual health status information at the time of AfriCat's annual health checks in June/July each year. It is expected that this research will dramatically benefit the large felids in captive, rehabilitation, and welfare facilities, around the world.

Main Activities

Long-term cheetah fly (*Hippoboscus longipennis*) control in the holding camps of AfriCat's Carnivore Care Centre



Aim of the project:

The study is aiming to effectively control the number of cheetah flies (*Hippoboscus longipennis*) on cheetahs (*Acinonyx jubatus*), leopards (*Panthera pardus*), and lions (*Panthera leo*) in a captive environment via the application of insecticides administered as powders, or as dips, or in topically applied formulations.

The cheetah fly is a blood-sucking parasite found mainly on carnivores. Heavy parasite burdens can occur on some animals: in one case, 180 specimens were found on a single captive cheetah. Extensive blood loss might be possible. *H. longipennis* is an intermediate host for *Dipetalonema dracunculoides*, a filarial parasite (thread-like, parasitic nematode worm) of dogs and hyenas. Even though irritating, cheetah flies don't reach numbers at which they pose a threat to the health of their hosts. However, when hosts are kept in captivity, the numbers of flies increase considerably, because of the ready availability of hosts and hence blood-meals. Consequently, cheetahs in breeding programs and cattle in

feedlots can become heavily infested with flies and the constant irritation of their bites can lead to extreme discomfort.

Plan of Action:

We compared the number of flies on captive and free ranging carnivores – the numbers were totally out of proportion, with a tendency towards captive cats. The high amount of flies found on captive carnivores resulted in an increased level of stress and aggressiveness of the animals.

We looked at the cheetah fly's life cycle, looked at different options of approach to reduce the numbers, taking all practicalities into consideration.

To reduce the amount of cheetah flies, three commercially registered products originally used in domestic dogs, were applied:

1. **Bravecto**: Tablets, per os every 3 months, active against fleas and ticks.
2. **Comfortis**: Tablets, effective against fleas.
3. **Seresto**: Collar, to be able to apply onto the neck, effective against fleas and ticks.

The cats were not seen daily, a set of predetermined observation evaluation markers were applied to measure success or failure. Every 4 weeks every individual cat was intensely, closely observed against the set markers.



Observation Findings:

After nearly four weeks after treatment, subject animals were found to be fly free with marked outstanding feature:

- *Fly numbers*: Although cheetahs and leopards were considered to be *fly free*, flies have been witnessed in the environment, but not on the cat, thus presumably the applied medicine is/should be effective;
- *Behaviour*: The "aggressive/stressed" behaviour of the animals changed towards being relaxed, and showing similarities again towards their counterparts on free range land – measured/visualised by their facial expression (different interpretations

possible);

- *Coat quality* improved.

Benefits observed (two years post termination of treatment) – short and long term:

- Reduced constant stress level;
- Susp. slight alteration in body metabolism to lesser protein drain – catabolic effect;
- Susp. lesser ulcerative effect on the GIT mm, i.e. lesser degree of ulceration (speculative effect – needs scientific evidence);
- Susp. A positive effect on the immune system, (speculative effect – needs scientific evidence);
- No *Hippoboscus* flies were seen on the cats.

All these products are specifically tested and registered on companion animals only, but we tested them on free-ranging wild fields.

Only future constant monitoring with regard to physical and clinical observations, gastroscopy, haematology and blood chemistry profile evaluation, on a wider ranging cat population (captive vs. free-ranging cats) will shed some light to the long-term product effect, with regard to the welfare of the medicated cats.

Conclusion:

- The aim to reduce numbers was achieved;
- Quality of life for the captive cats improved visibly;
- Three different commercial available products were used, (one product able to apply to one cat only);
- Hardly any difference in visual observations was noticed between the three products;
- All had their primary intended required effect: to reduce the fly burden;
- A cost analysis had been performed, to outline the financial implications (some variations will be looked at to reduce treatment costs, but still maintain quality of life for the captive cats);
- This project is financed directly on short term by AfriCat HQ.



Rehabilitation of three orphaned African wild dogs (*Lycaon pictus*): short to long-term management plan

Aim of the project:

To successfully introduce a young wild dog pack back into the wild with hopeful long-term survival prospects.



Objectives:

- Foster close cooperation with the Ministry of Environment and Tourism (MET);
- Develop a mutual beneficial strategic plan for the up-bringing of three orphaned wild dogs implemented by AfriCat;
- Maintain their clinical health status (monitor endo- / ectoparasite status), implement essential vaccinations for survival, create scientific data sheet for future use);
- Rearing the litter up to a sufficient well-coordinated hunting pack;
- Re-introduction into a species-extinct wilderness area of a healthy, novice experienced viable wild dog pack-size of Namibian genetic origin.

Action plan:

- Received permission from MET to pick up the orphaned pack (n=3) from the Okamatapati community (in the night 27th June 2016 with an estimated age of 5 to 6 weeks);
- Feeding multiple time daily;
- Minimise human contact by sight, audible, smell (as much as possible);
- Vaccinations against rabies and canine distemper;
- Serum usage: genetic typing, screening for diseases (epidemiology), responds immune reaction to basic essential vaccinations, observe for endo-/ ectoparasites;

- After all required vaccinations, relocation into camp within the Okonjima Nature Park to:
 - increase activity, muscle development/ exercise / fitness;
 - stimulate alertness / regain awareness of environment / danger;
 - stimulate smell sense;
 - hopefully become aware of danger (cheetah/hyena/leopard);
 - feeding only once daily with one or 2 days per week no food;
 - food type carcass incl. viscera;
 - observe feeding pattern: were and how thy start feeding, feeding dominance;
 - introduction to two adult rehabilitated wild dogs, observe their reaction towards each other – artificial introduction of unrelated pups (n=9) to existing wild dog pack (n=2);
 - observe for any development of a hierarchy;
 - stimulate hunting instinct.

Both packs were united successfully into one pack in 2017, followed by a successful re- and translocation to Naankuse Sanctuary, in the district of Windhoek, with the aim to establish a healthy, large pack of wild dogs for release into a wilderness area at a later stage.



Successful Annual Health examination

With a large group of veterinary RSA specialists, Namibian veterinarians the annual Captive Carnivore health examination was conducted over a period of 2 weeks in 2016, and one week in 2017. In 2017 the first group of Namibian Veterinary students attended and were taught through all the procedures by the competent Dr. A. Tordiffe.

Studies conducted during annual health examinations:

- The long-term health monitoring and immune-competence of captive cheetahs and other felids at the AfriCat Foundation (this project will come to an end in 2018)
- Anaesthesiology: Testing of different agents / agent combination /dosages / agent effect on the animal's metabolism
- Imaging (ultra-sonography): to gain an insight of normal texture, organ sizes, and abnormal sizes / textures that possibly can be indicative as early warning signs for disease patterns, commonly encountered in captive carnivores (cats in our case)
- Dental studies
- Hyperthermia
- Microbiome



Blood bank: Unam and IcPanthera UCT, Cape Town, RSA

After 22 years of building up and accumulating genetic material of various carnivore species, AfriCat managed to hand over their blood bank. Under the capable hands of Mr. V. Naudé, from the genetics Laboratory: IcPanthera, UCT, Cape Town, RSA, all samples were divided into half portions. One half portion remains in Namibia and was handed over to the School of Veterinary Medicines, Campus Neudamm, University of Namibia and one half of the samples are relocated to Cape Town to the Genetics Laboratory IcPanthera to help with their mainly leopard diversity study. In return, AfriCat Foundation will be acknowledged in all publications as sponsors and co-authors. A leopard and lion blood related family tree will be established and forwarded by IcPanthera UCT CT. If in future any new research projects wanting to make use of the present genetic material they are welcome, provided that AfriCat give its permission to such project.

Unam Student re-graduate research projects

In 2017, the AfriCat Foundation in collaboration with the School of Veterinary Medicine of the University of Namibia, started three pre-graduate student projects. Two separate projects are looking at the quantitative internal parasites variety and load in one grazer (blue wildebeest) and one browser (kudu) species and with another grazer (rhinoceros) and their load during the wet and dry season in different (five) areas of the nature reserve. Aim is to establish the normal range for a non-stressed, free-roaming, non-migratory animal.

The third project, via AfriCat's blood bank, is looking at an epidemiological survey of the presence or absence of FeIV / FeLV on free roaming lions in Namibia, where our small lion blood collection forms part of the total collection, (project started beginning of 2018).



Practical Skills Courses

The AfriCat Foundation Veterinary Clinic together with the School of Veterinary Medicine (SoVM) offered two courses over a couple of days to their veterinary students at our clinic

during 2017. One course was in wildlife management on carnivores and herbivores, and one course purely in acquiring practical skills in obstetrics and surgical procedures.

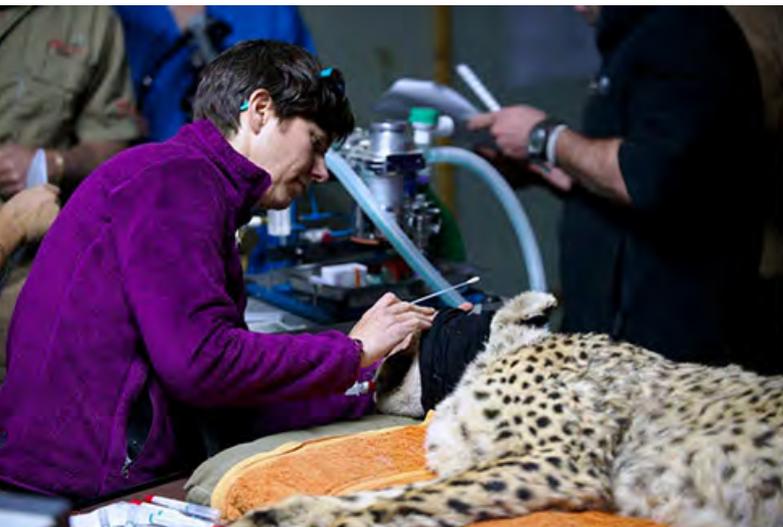
Veterinary para-professional wildlife course

In November 2017, the AfriCat Foundation Veterinary Clinic together with Dr. Ulf Tubbessing offered a course to enable successful passed students to apply for registration with the Namibian Veterinary Council as a para-professional in wildlife. 8 candidates attended and passed the course.

Major Achievements

- Publication of peer viewed research papers by veterinarians / researchers including data collected during the annual AfriCat health checks:
 - **Gas chromatography-mass spectrometry profiles of urinary organic acids in healthy captive cheetahs (*Acinonyx jubatus*)**
Adrian Stephen Wolferstan Tordiffe, Mari van Reenen, Fred Reyers, Lodewyk Jacobus Mienie
 - **Comparative Serum Fatty Acid Profiles of Captive and Free-Ranging Cheetahs (*Acinonyx jubatus*) in Namibia**
Adrian S. W. Tordiffe, Bettina Wachter, Sonja K. Heinrich, Fred Reyers, Lodewyk J. Mienie
 - **Ultrasonographically determined renal values and comparisons to serum biochemistry renal variables in aged semi-captive cheetahs (*Acinonyx jubatus*)**
Robert M. Kirberger and Adrian S. W. Tordiffe
 - **Cardiopulmonary effects of anaesthesia maintained by propofol infusion versus isoflurane inhalation in cheetahs (*Acinonyx jubatus*)**
Roxanne K Buck, Adrian SW Tordiffe & Gareth E Zeiler
- Completion of the PHD thesis of Dr. Adrian Tordiffe, lead veterinarian of the annual AfriCat health examinations: The metabolic profiling of cheetahs (*Acinonyx jubatus*): A systems biology approach to understanding the chronic diseases they suffer in captivity.
- Successful registration with the National Commission of Research, Science and Technology (NCRST): As from 2017 AfriCat Foundation successfully registered with the National Commission of Research, Science and Technology (NCRST). This registration was necessary and enables us to continue with ongoing and new research, after been

instructed by the Act 23 of 2004 and implemented by the Ministry of Nature Conservation and Tourism. All our formal projects are registered with the NCRST, in collaboration with the Ministry of Environment and Tourism (MET).



Constraints & Challenges

- Additional researcher and/or students are needed to assist with research data collection.
- To accommodate and ensure transport for external researchers and/or students is challenging due to the lack of available housing and transport opportunities.

Future Plans

- Diversify pre – and post graduate student research projects with Namibian based educational institutions.
- Establishment of accommodation for at least one researcher and/or student at a time.
- AfriCat will host its last annual health examination in June 2018. As from 2019 on, health examinations of all captive and free-ranging cats as dictated by the Ministry of Environment and Tourism, will be spread out over the year and carried out by AfriCat’s resident veterinarian Dr. Diethardt Rodenwoldt.





Programme 2: Carnivore Care

Objectives

As detailed in Section 1, AfriCat initially operated only a Rescue and Release Programme, which developed as a result of the Hanssen family's relationship with the local farming community. Through this programme, more than a thousand carnivores were rescued from farms where they would have otherwise have been killed, and over 85% of them were released where they would not be persecuted. Those that could not be released entered AfriCat's Carnivore Care Programme.

AfriCat currently holds 15 cheetahs in its care that are young, fit, and wild enough to be part of the Rehabilitation Project (see Programme 3). There are, however, 34 cheetahs, 4 leopards, and 4 lion too old or tame to go back into the wild. These individuals are going to live out their lives under the expert care of the AfriCat team and continue to be "ambassadors" for their wild counterparts.

AfriCat's Carnivore Care Centre aims to provide a healthy living environment for the large carnivores in temporary or permanent captivity and to minimise illness and injuries as far as possible.

Assisting Research: Keeping large carnivores in captivity in Namibia requires a Permit from the Ministry of Environment and Tourism. One of the conditions of this Permit is that a veterinary inspection is carried out once a year. As discussed in Programme 1, the annual health examinations of the cheetahs at AfriCat give invited specialist veterinarians the opportunity to conduct research on various aspects of animal health, particularly those relating to the health of large carnivores in captivity. As well as providing expert information on the health of AfriCat's animals, the examinations also allow for the comparison of results with similar studies being conducted on large carnivores in other captive facilities across the globe.

Some of this information can also be used to gain insight into the health of large carnivores in the wild. On-going collaboration with scientists and the conservation authorities and working closely with the farming community allows for studies to be conducted that provide valuable information on large carnivores and their long-term conservation in Namibia. Researchers have been involved in a number of studies involving captive cheetahs at AfriCat's Carnivore Care Centre (<http://www.africat.org/program/research>).

AfriCat continued to collect blood and urine samples of all cheetahs and leopards captured on farmland and released back into the wild, to add to the existing collection of samples started when AfriCat first began operating 21 years ago. These samples are available for research and analysis.

Conservation through Education: The animals in AfriCat's Carnivore Care programme support conservation through education – local school children who are unfamiliar with wild animals are able to see these animals at close quarters and learn to appreciate their beauty and value. The animals in captivity at AfriCat provide opportunities to increase awareness of their wild counterparts and their conservation priorities to the children at the Education Centres as well as to foreign visitors to Namibia.

AfriCat started out with a mission statement to "keep wild cats wild", hence 'A free Cat'. Concentrating on Adult and Youth Education, initiating wild cheetah research and evolving the Rehabilitation Project to such an extent that it becomes a worldwide model for Reintroduction, are all in keeping with that early statement.

Main Activities

- A display room at the Carnivore Care Centre was built in order to create a wider display of AfriCat information and research findings, which allows for school groups, visitors and AfriCat/Okonjima staff to learn more. A variety of mounted animals occurring in Namibia portrayed in a lifelike state are exhibited in AfriCat's new display room offering an educational value for school groups and tourists alike.

- A specially designed cheetah exercise lure system was installed in two of AfriCat's spacious cheetah camps, sponsored by AfriCat's long-term supporter Mr. Bruce Allan. The lure is a fantastic way to keep the cats at our Carnivore Care Centre fit and also serves as a great education tool for visitors- both kids and grownups - to see the cheetahs at full speed, doing what nature intended them to. There is a variety of different excursive lures on the market, but this one consist of a simple motor, a casing that covers the rope & pulley-system, which is nailed to the ground. The string/rope to which the 'fluffy lure' is tied, is embedded into the casing, to prevent it from cutting the legs of the cheetah when charging at full speed. It was initially designed for greyhounds, but also works very well for cheetahs. The lure is made of a soft material that will not injure the cheetah's wrists or claws, compared to the South African lures.
- The two 5 hectare lion camps were joined into one camp resulting in a more open, spacious area for our two lion ambassadors Shavula and Shenzi.
- Interchange of captive cheetah groups into different camps to increase animal enrichment and mental as well as physical stimulation.
- A new staff house was built for newly-employed AfriCat researcher Dr. Sarah Edwards.



Major Achievements

The grass in all camps is cut annually to ensure improved viewing opportunities for school and visitor groups and to reduce the risk of bush fires throughout the rainy season.

Two successful health examinations were undertaken in 2016 and 2017 led by Dr Adrian Tordiffe from the National Zoological Gardens of South Africa and the Faculty of Veterinary Science at the University of Pretoria (UP)], Dr. Gerhard Steenkamp from the Faculty of Veterinary Science at the University of Pretoria (UP) and AfriCat's resident veterinarian Dr. Diethardt Rodenwoltd. The veterinary checks fully evaluated the health of all captive animals in the Carnivore Care Centre.

Constraints & Challenges

Running costs for keeping captive carnivores fed with a well-balanced diet and vitamin and mineral supplements to prevent deficiencies have significantly increased. This has increased the financial burden on AfriCat and reduced the availability of funds for other programmes such as education and research.

Future Plans

Maintenance of camps and electrical fences throughout the year





Programme 3: Environmental Education

AfriCat has discovered that, for many Namibian children and adults, the AfriCat Environmental Education Programme is their first camping and outdoor educational experience. Few have had the opportunity to visit wildlife reserves, observe antelope and wild large carnivores, and to experience the natural wonder of their own country. Neither have they been introduced to the vocational opportunities which tourism visitation, hand-in-glove with conservation, offers. AfriCat has advocated environmental education since 1998 and acutely recognises the urgent need to offer as many learners, of all ages, exposure to the enormous challenges facing Namibia's increasingly fragile natural heritage. It offers constructive solutions and an alternative to the present path.

AfriCat provides Environmental Education programmes for the youth of Namibia with the hope of guiding them towards a greater understanding of the crucial importance of the natural world and of wildlife conservation. The main objective is to promote holistic environmental awareness among Namibian youth with emphasis on the role of Namibia's large carnivores. After many years of working with the farming community, it became clear that youth education was vital to the long-term conservation of large carnivores. The programme has already reached over 25,000 children and young adults at AfriCat's two Education Centres and through its Outreach Programmes.

The AfriCat Environmental Education Programme aims to inform and empower Namibia's youth about large carnivores, conservation, and the Namibian environment through an experiential learning opportunity.

Objectives

The objectives of the Environmental Education Programme, based on the 1997 UNESCO-UNEP Environmental Education objectives, are as follows:

- To develop holistic, environmental awareness, sensitivity, knowledge, attitudes, and values among Namibian youth.
- To promote all aspects of sustainable living.
- To emphasise the importance and responsibility of each individual to contribute to the conservation of the environment.
- To increase knowledge and understanding of Namibia's large carnivores showing that they are an integral, essential, and magnificent part of the Namibian ecosystem.

AfriCat's Environmental Education Programme aims to achieve these objectives by:

- Providing fun and interesting environmental education camps ranging from 2 – 5 days, based at the AfriCat Environmental Education Centre or the AfriCat North Wilderness Camp.
- Utilising the AfriCat Information Centre and the non-releasable cats as carnivore 'ambassadors'.
- Utilising the Okonjima Nature Reserve and/or Northwestern Namibia to enjoy and experience nature; to see and learn about the fauna and flora of Namibia.
- AfriCat North programme: Youth of all ages are encouraged to become involved in this programme, where active participation enables them to learn more about lions in general, their role within the natural ecosystem and the problems facing lions due to loss of ideal habitat, disease, and drought. Issues such as Human-Wildlife Conflict and improved livestock protection methods are encountered and the students are then actively involved in trying to solve these crucial problems.



Main Activities

AfriCat Environmental Education Programme

Our programme included visiting Namibian schools, both primary and secondary schools, ranging from grade five up to grade twelve. The AfriCat Environmental Education Campsite also accommodated a number of UNAM initiated groups for practical training.

We continued hosting a number of international schools and colleges from the USA, UK, Poland and The Netherlands. We hosted 24 camps at our PAWS Campsite and 510 learners, students and teachers visited the AfriCat Environmental Education Programme.

We keep our programme flexible to be able to adapt it to the skills and abilities of each individual group. For all students we incorporate physical, mental as well as fun activities, while still emphasising the same core principles within environmental education. We motivate all participants to use critical thinking skills, to think outside the box, and to inspire them to make decisions that are beneficial both to the environment, as well as to their future careers.

Outreach Programme

So far for the year we have conducted three school outreach trips. Our first outreach was to Windhoek and Okahandja Schools during February, then, we visited the Swakopmund & Walvis Bay schools during April. Our third outreach was to schools in Otjiwarongo and Okakarara during September and October.

While the ideal with our outreach programme is to reach the learners, this is not always possible due to the high demand on learners' time by schools. Therefore, we also endeavour to make contact with the principals and teachers at the schools we contact.

Our goal for this year was to reach at least 4,800 learners, students and teachers through the two programmes. We were able to reach 6,976 learners, students and teachers.

Major Achievements

During 2018 we had 25 visits at the PAWS Environmental Education Centre with a total of 532 learners, students and staff visiting. A breakdown of the visitors is as follows:

- 262 Namibian learners and teachers
- 67 UNAM (University of Namibia) students

- 203 international learners, students and staff (four countries: USA, UK, Poland and Holland)

We also did four school outreach outings. The four regions we travelled to included Karas, Erongo, Otjozondjupa and Kunene. With the outreach programme we reached 6,575 learners and 169 teachers: 6,744 learners and teachers in total.

The AfriCat Environmental Education programme reached a total of 7,276 people during this year.

Constraints & Challenges

One of our main challenges remains transport to assist students, who do not have access to transport, to come to our centre. Okonjima has generously allowed us access to their 15 seater bus, at a small cost, to collect learners from Otjiwarongo.

A second challenge is to get the schools from less affluent areas here at the AfriCat Educational Centre. We are currently approaching Namibian companies for sponsorships for these schools to enable them to join us at on our Programme.

Future Plans

Our plans for the future are to improve, and also grow, the programme with the following:

- Firstly, we are encouraging a longer programme that will allow students to stay a whole week with us. We have found that the longer the students are exposed to the EE programme, the more significant the positive impact is on them, and it creates a longer and more memorable impression.
- We also incorporate more high profile primary and high schools which cater for students that come from families that are involved in the governing of our country. These students are likely to end up in the same professions and therefore would be in a position to make decisions that could be beneficial to the long-term conservation of Namibia's natural resources.
- Outreach is also high on the priority list as this will allow us to reach more students in remote areas, but also to concentrate in the northern part of Namibia where the vast majority of schools are situated. If they can't come to AfriCat, we will go to them, and
- We hope to have our new "open view" classroom finished by the end of February 2019.



Programme 4: Rehabilitation and Rescue & Release

Objectives: Rehabilitation

AfriCat's Cheetah Rehabilitation project was initiated to give captive cheetahs an opportunity to return to their natural environment. Although hunting in carnivores is instinctive, many of the cheetahs at AfriCat lack experience due to being orphaned or removed from the wild at an early age. This inexperience, as well as their conditioning to captivity, makes these animals unsuitable for release on farmland. The cheetahs (usually a coalition of brothers and sisters) are fitted with radio-collars before their release into the 20,000 hectare Okonjima Nature Reserve, so that their welfare and progress can be closely monitored. Rehabilitated cheetahs are not released on farmland.

Besides giving the cheetahs a chance to return to the wild, the success of this project provides other substantial benefits, as it gives AfriCat the opportunity to assess whether rehabilitation is a successful means of conserving an endangered population and it also allows for the number of cheetahs in captivity to be reduced.

Objectives: Okonjima Nature Reserve

The objective is to turn the 20,000 hectare Okonjima Nature Reserve, once denuded and eroded farmland, back to its natural state, by optimising the herbivore population and the related carnivore density, in order to underpin this Nature Reserve's sustainability. The symbiotic relationship which exists between the AfriCat Foundation and the Okonjima Nature Reserve is imperative. Without education, research, and the mitigation of farmer-predator conflict throughout Namibia, the essential conservation of large carnivores would falter; and without the substantial financial support offered by foreign visitors, who stay in the Okonjima lodges, neither would survive. This mutually beneficial relationship enables

interested visitors to experience, first hand, the work of the AfriCat Foundation, gaining valuable insight into carnivore conservation and, at the same time, creating the platform for donating much-needed funds to the AfriCat Foundation and its programmes throughout the whole of Namibia: Environmental Education, Carnivore Research, Rescue-Release & Rehabilitation, Carnivore Care, and Human Wildlife Conflict Mitigation and Community Support.

The 20,000 hectare Okonjima Nature Reserve was established with a 2.2 metre-high electrified, 98km long, perimeter fence to control predator movement, enabling research to monitor predator movement and density studies within an 'island-bound' conservation wilderness. The main reason for fencing the Reserve is to establish a protected environment for the AfriCat Rehabilitation Project (and Rescue & Release Project). It will certainly take time for the AfriCat Environmental Education Programme to have the desired effect on people dealing with carnivores on open farmland. Because most captive carnivores have lost their natural fear of humans, the cheetahs released into the Reserve would be shot by neighbouring farmers, if it was not fenced. It would not be possible to achieve the objectives of the Rehabilitation and Education Programmes in this Reserve, if there was the chance that they could leave the protection of the Reserve and be shot on neighbouring farms. The presence of 'tame' carnivores on adjacent farmland would have resulted in increased, indiscriminate shooting of these animals and, with the increased number of antelope moving from the Reserve onto neighbouring farms, the hunting thereof for meat would also have increased. Thus, these programmes are undertaken and monitored within the Reserve borders, with the removal and addition of prey species as necessary for the purpose of research and equilibrium.

The enclosed wilderness area is also part of a project to prove to farmers that one can farm alongside carnivores and that they do not adversely diminish populations of indigenous game. Research has shown that the Okonjima Nature Reserve has up to three times the number of carnivores normally occurring in a fenced area of this size.¹ Even with these high predator numbers, over a period of 13 years, the game numbers increased annually. This has proven that increased predation stimulates reproduction.

Objectives: Rescue and Release

AfriCat works closely with communal and commercial livestock farmers, trying to assist in alleviating some of the losses from predator intrusion. Since 1993 AfriCat has rescued over 1,080 cheetahs, lions and leopards on Namibian farmland. Over 85% of these animals have been returned to the wild. However, the animals were released into new territories, belonging to others. In their 'new territories' they needed to either fight for their new home or 'run the gauntlet' of the farmers' traps and guns, back to their former territory. AfriCat is, therefore, entirely uncertain as to how many of the released carnivores survive this re-location. AfriCat has therefore curtailed the nationwide Rescue and Release

¹ Ref Wayne Hanssen, 2012

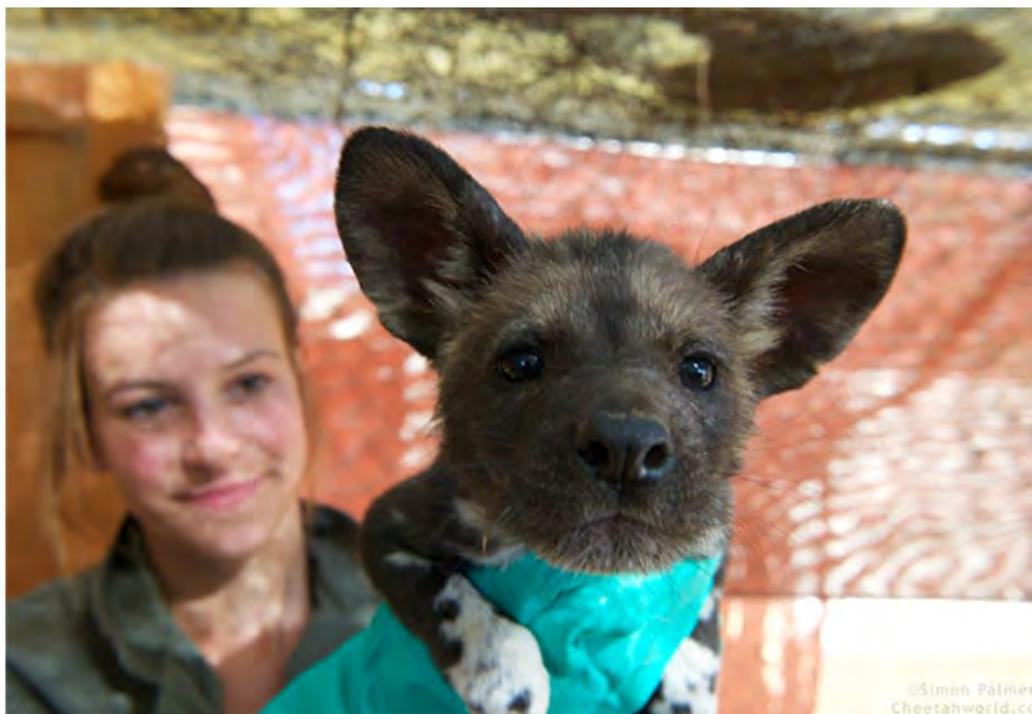
Project and at present only release into the Okonjima Nature Reserve, or back into the same area in which the carnivores were captured.



Main Activities

- Monitoring the dynamics of in total six different rehabilitated cheetah groups in the Okonjima Nature Reserve.
- Rescue of nine orphaned African wild dog pups who were found abandoned and in poor condition and handed to AfriCat by the Ministry of Environment and Tourism (MET) in June 2016.
- Rescue of an adult female cheetah from a livestock farm in the Waterberg and release into the Okonjima Nature Reserve.
- Rescue of two sub-adult cheetah females from a livestock farm in the Waterberg area. The two females are still too young to be released back into the wild and thus, have been placed into AfriCat's Carnivore Care Center. A release into the Okonjima Nature Reserve is planned for 2019.
- Integration of nine juvenile wild dogs to an existing pack of two adult wild dogs. The initial introduction was successful and went without any noticeable aggression, most likely due to the young age of the dogs (eight months). Four months after the introduction the adult male dog of the opposing pack was killed by the males of the young packs.
- An orphaned cheetah was rescued in Damaraland after its mother was killed in October 2016. The young cat was found to be in bad physical condition and covered in maggots. Upon rescue, the cheetah was on its own assuming that his siblings did not survive on their own. The young cheetah was transported to AfriCat HQ where he was

monitored hourly and given IV fluids. Despite all efforts his body was too weakened and he died only two days later after its rescue.



Major Achievements

- Release of three new groups of former captive cheetahs into the Okonjima Nature Reserve.
- Successful upbringing of nine orphaned wild dog pups and semi-successful introduction to two adult wild dogs.
- A report on the evaluation of cheetah rehabilitation success rate over the last 20 years in the Okonjima Nature Reserve was compiled.

Constraints and Challenges

- The high density of leopards and the resulting strong overlap of home ranges between leopards and cheetahs are contributing to the high rate of interspecific competition and thus, mortality rate of cheetahs in the reserve. Predator-avoidance strategies such as natural large ranging patterns and the utilisation of hunting grounds in areas of low predator occurrence are difficult to implement due to the fence restricted useable area. With the opening of more suitable habitat in the reserve for cheetahs in form of open plains and the introduction of more suitable prey species such as springbok, it is hoped that reintroduced cheetahs will have a better chance of survival in an area of high leopard density in the future.
- Despite in-depth research on wild dog introductions, the biggest risk with the artificial bonding attempt of two unrelated wild dog packs we were facing was rejection and

the occurrence of fatal aggression between the two groups. Because separated hierarchies exist in males and females and are maintained within each sex. For this reason, artificial integration of opposite-sexed groups is favourable mimicking a natural situation where a dispersing male group is joining a dispersing female sibling group from another pack where hierarchies are already established upon formation process. The initial successful integration of the nine orphaned wild dog pups to two adult wild dogs, was overshadowed by the death of the adult male dog after being attacked by the young males of the opposing pack.



Future Plans

- Rehabilitation of more captive cheetahs into the 20,000 hectares Okonjima Nature Reserve to reduce number of cheetahs in captivity.
- Purchase of more VHF radio collars to ensure regular monitoring post release to evaluate the success of cheetah rehabilitation in a fenced environment.
- Constant removal of invasive bush to create at least 7,000 to 10,000 hectares of open plains for introduction of more game. This will greatly enhance the AfriCat rehabilitation projects.



Programme 5: Human-Wildlife Conflict Mitigation and Community Support

Objectives

The AfriCat Communal Carnivore Conservation Programme (CCCP) primarily aims at empowering farming communities in carnivore-conflict areas to better manage and protect their livestock, ultimately mitigating conflict and reducing carnivore persecution. With Namibia's lion numbers estimated at fewer than 1 000 individuals (Panthera, WildAid & WildCru: Beyond Cecil: Africa's Lion in Crisis, 2016), and the ever-present lion-farmer conflict in a number of communal conservancies and along the borders of protected areas, especially Etosha National Park (ENP) and the Hobatere Concession Area, our aim is to develop workable Human-Wildlife Mitigation programmes together with improved arid-adaptive farming methods, thereby reducing livestock loss.

Our main objectives are:

- i) to empower livestock farmers to better manage and protect their livestock;
- ii) to create greater tolerance towards carnivores, through Education and by minimising livestock loss;
- iii) to encourage non- consumptive tourist activities (photographic tourist lodges) in support of communal farming communities; iv) to GPS-Satellite collar a number of lions in order to monitor movement patterns and offer farmers an early-warning system.

AfriCat North has, for many years, been directly involved with Human Wildlife Conflict (HWC) incidents on communal & free-hold farmland adjacent to the Etosha National Park (ENP), where conflict situations arise when lions leave the confines of protected areas and kill livestock; also, when the presence of resident lions within communal Conservancies, cause conflict. Due to either a perceived or a real threat, large number of lions are killed annually.

AfriCat strives to enable local communities to support themselves without endangering the valuable lion population.

Main Activities

The **AfriCat community programmes** directly support and up-lift the communal farming communities along the western, south-western and north-western borders of Protected Areas such as Etosha National Park and the Hobatere Concession Area, as well as further afield. By adapting their livestock management and protection methods, both communal and free-hold farming communities will lose less livestock and, with continued support and education, these communities will destroy fewer lions and other large carnivores.

The Communal Carnivore Conservation Programme (CCCP), active since 2004 in the Ehirovipuka, Omatendeka and !Khoa di //Hoas Conservancies, encompasses three primary sectors:



1. The Livestock Protection Programme (LPP) includes

i) the upgrading and building of nocturnal livestock 'kraals' (bomas); 2015-2016, total of 20 new and upgraded livestock protection kraals in place, supporting approximately 15 communities (approx. 2000 people);

ii) providing much-needed advice on rangeland & livestock management and improved protection methods. AfriCat collaborates with CAN (Conservation Agriculture Namibia), an NGO dedicated to holistic rangeland management: encouraging farmers to adopt arid-adaptive livestock management practices, thereby protecting the land and increasing yield. This is carried out through regular meetings with traditional leaders, youth & women's groups and community gatherings as well as environmental education for wildlife clubs;

iii) the patrol, repair & strengthening of boundary fences together with Etosha NP staff and community members, thereby reducing predator movement out of and preventing cattle movement into, these protected areas;

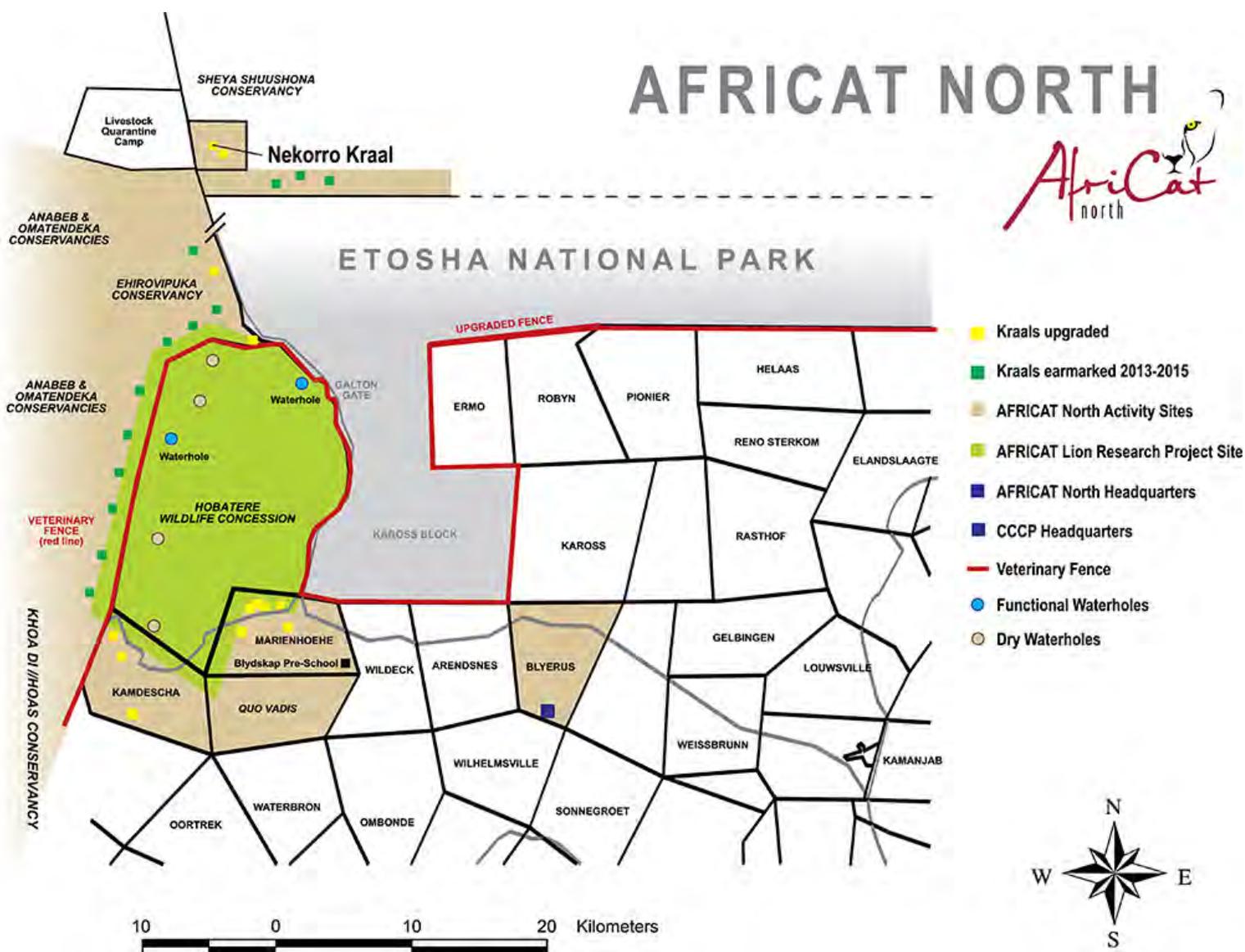
iv) the AfriCat Lion Guards: essentially, the Lion Guards are assigned to various conflict areas, elected by their communities. The four men in AfriCat's employment monitor & report on lion whereabouts, report incidents, patrol protected area boundary fences, monitor & report poaching and other illegal activities, identify priority villages for kraal-building and carry the message of Conservation from the highest authorities to the farmer. These men play a vital role in protecting the Hobatere lions, mitigating lion-farmer conflict on communal farmland and encourage & guide farmers to adopt the AfriCat Livestock Protection Programme.



Farmers along the southern, western and northern boundaries of Hobatere and the western Etosha border suffer high livestock loss to lions (see white blocks on Map AfriCat North Activities, below, indicating 'hot-spots' where kraals have been built).

AfriCat offers various mitigation options including the use of nocturnal kraals and re-instating herdsmen; once the Traditional leaders have signed the AfriCat Agreement, to maintain and repair these kraals, to bring their animals into this safe-haven when predators are in the area and to refrain from persecuting lions and other large carnivores, AfriCat sponsors the building of strong, nocturnal kraals.

AfriCat monitors these kraals on a regular basis, sends early warning alerts and responds to calls for help when lions are in close proximity to kraals and villages.



2. 'Conservation Through Education' encompasses:

Youth groups, community leaders and members of farming communities are encouraged to participate in AfriCat's Environmental Education Programmes, ultimately establishing a deep-seated awareness of environmental issues, encouraging adaptive livestock management and developing an understanding and appreciation of the value of the wilderness and the wildlife within it. AfriCat strives to enable local communities to support themselves without endangering the valuable carnivore population. 2015-2016: two Wildlife Clubs were established, one in a rural environment and the other semi-urban, involving approximately 150 children between the ages of 10-18 years.

3. Lion Research and Monitoring:

aims to re-establish accurate current data on the demography of lions within the corridor between the northwest, the Etosha National Park and the surrounding areas. It provides data on the movement of lions into and out of Hobatere and aims to quantify both the degree of human-lion conflict and the impact it has on people living around Etosha & Hobatere. Lions are fitted with GPS – Satellite collars, offering farmers an early-warning system regarding lion movements.



Major Achievements

The AfriCat 'Lion Guard' Programme: these men monitor & report on lion whereabouts, encourage and guide farmers to adopt the AfriCat Livestock Protection programme, report incidents, patrol fences with Ministry of Environment & Tourism (MET), monitor & report poaching and other illegal activities, identify priority villages for kraal-building and carry the message of Conservation from the highest authorities to the farmer. Essentially, the Lion Guards are assigned to various 'conflict' areas, eg. ENP western boundary from Werda Veterinary Control Gate to Omatambo Maue, Otjokovare area, Onguta farming community (along the Hobatere western border) & Arisona farming community, along the Hobatere south-western border). These men play a vital role in protecting the Hobatere & Etosha lions and mitigating lion-farmer conflict on communal farmland.



Geo-fencing or early-warning systems (via GPS-Satellite collars fitted on lions and other predators), whereby farmers are warned of lion / predator movement when in close proximity to their herds or villages; at present, AfriCat monitors 12 lions on a two-hourly basis, gathering much-needed data on movement patterns, thereby mitigating conflict.

Strong, 1.8-2m high nocturnal kraals (ongoing new construction / repairs & maintenance of existing kraals), for use when the lions are in the area: to date, 23 such kraals have been built in the Ehirovipuka, Omusati and !Khoa di //Hoas Conservancies by AfriCat.

Rangeland Management & Herding systems in communal Grazing Areas: whereby farmers employ herdsman to take care of their livestock during the day whilst in the field and to kraal them at night; the recent AfriCat collaboration with CAN (Conservation Agriculture Namibia) in communal Grazing Areas encourages rangeland management and improved husbandry & livestock protection.



‘Conservation Education’: whereby the youth as well as adult community members accept the lions’ role in a balanced ecosystem and understand the value as a sustainable tourist attraction.

The Lion Guard Programme provides day and night-time patrols, protecting both the villagers and their livestock from marauding predators; success is high provided livestock are safely penned during the night. A more extensive Lion Guard Programme, whereby conservancy members take on the role of ‘keepers of the wilderness’, is being developed.

In progress: ‘Conservation Agriculture’ courses and work-shops, providing sound arid-adapted farm management, animal husbandry and improved livestock protection programmes, thereby minimising the disastrous effects of drought.

Constraints & Challenges

Fund-Raising Challenges & Constraints: as a non-Profit Organisation, AfriCat is forced to raise funds in order to sustain the various programmes: 1. Human-Wildlife Conflict Mitigation & Community Support (Livestock Protection Programme); 2. Conservation Education (Youth and Adult programmes); 3. Lion Research & Mitigation Programmes. With the current global donor-fatigue due to the ever-increasing need by an increasing number of donor-funded projects, such a small, Africa-based organisation as AfriCat is faced with major challenges to sustain and further develop such programmes.

Drought: Ever-present conflict is largely due to persistent drought (2015-2016 drought is at its peak) and resultant human & livestock encroachment on state-protected land, (Hobaterre and Etosha NP), as well as occupation of core breeding areas in communal Conservancies. Conservancy Committees unable to manage such disregard of policy due to human need, resulting in long-term complications and friction amongst community members and loss of wildlife due to poaching (bush-meat) and persecution (lion and spotted hyaena).

Restrictive Traditional farming practices: The Livestock Protection Programme which supports communal farming communities, faces the on-going challenge of farmers' reservations regarding the re-modelled kraal (boma) design; the traditional wire-and-wooden-poles boma (kraal) could be replaced by panels of shade-cloth material, strung between trees, readily erected and taken down as the grazing needs are met; funding constraints and design challenges (reluctance by traditionalists), hamper progress.

Conservation Education & Conservation Agriculture: In most cases, limited basic, formal education, with minimal tertiary training, reiterates the importance of AfriCat's Conservation Education Programmes. Many young men and women in the 20 – 35 year old category, lack basic qualifications as artisans or farmers, resulting in unemployed, frustrated community members, who turn to poaching and other forms of criminal activity.

Future Plans

- Training and support for the present and additional Lion Guards;
- Further develop the LPP in the !Khoa di //Hoas & Ehirovipuka Conservancies and extend the programme to neighbouring Omatendeka, Anabeb and Orupupa Conservancies;

- Ground surveys of prey species will continue, as will surveys of livestock predation, retaliation and stakeholder attitudes towards lions (questionnaires);
- Promote greater awareness & tolerance towards the species through environmental education, using local media and outreach to schools;
- Promote appropriate and realistic mitigation measures: Changes to existing animal husbandry practices in order to reduce conflict;
- Medium – Long Term: to develop and support Vocational Training Programmes & Initiatives for men and women, targeted to sustainably contribute to economic enhancement of households, with the consequent gradual but steady impact of poverty alleviation and skill augmentation;
- The collaring of 3-5 more lions within the study area (July 2016 – September 2017), using GPS-Satellite transmitter collars for movement patterns and conflict monitoring, will provide an Early-Warning System via text messages to farmers in these conflict zones or 'hot-spots'.



III: Budget and Statistics.

The AfriCat Foundation Trust Registration Number T48/93

Statement of Financial Position as at 28 February 2017

	2017 N\$	2016 N\$
ASSETS		
Non-current assets	13,427,075	12,508,630
Property, plant and equipment	12,150,411	11,445,062
Investments	1,276,664	1,063,568
Current assets	1,935,358	2,197,814
Trade and other receivables	85,240	661,304
Inventory on hand (curios)	1,150,499	688,163
Cash and cash equivalents	699,619	848,347
Total Assets	15,362,433	14,706,444
FUNDS AND LIABILITIES		
FUNDS	14,597,399	14,656,062
Opening balance	14,656,062	14,155,993
(Deficit) / Surplus for the year	(58,663)	500,069
Current liabilities	765,034	50,382
Advances	455,171	-
Trade and other payables	309,863	50,382
TOTAL FUNDS AND LIABILITIES	15,362,433	14,706,444

The AfriCat Foundation Trust Statement of Profit or Loss for the Year Ended 28 February 2017

	2017 N\$	2016 N\$
Income	5,088,824	7,449,378
Donations	1,993,402	4,192,467
Adoptions	768,784	648,206
Curios	1,312,980	2,042,122
Day Centre activities	689,650	261,303
Filming fees	-	24,348
Profit on disposal of property, plant and equipment	107,367	-
Rent received	120,000	240,000
Interest received	96,641	40,932
Expenditure	5,147,487	6,949,309
Project activity expenditure	2,384,658	2,243,334
Operational expenditure	2,762,829	4,705,975
(Deficit) / Surplus for the year	(58,663)	500,069

The AfriCat Foundation Trust Statement of Cash Flows for the Year Ended 28 February 2017

	2017 N\$	2016 N\$
Operating activities		
Cash receipts from donors	5,460,880	7,408,447
Cash paid to suppliers for services	(5,184,269)	(5,997,225)
Cash generated from operations	276,611	1,411,222
Interest received	96,641	40,932
Net cash inflow from operating activities	373,252	1,452,154
Investing activities		
Additions to property, plant and equipment	(1,749,054)	(1,241,833)
Proceeds on disposal of property, plant and equipment	984,999	-
(Increase) in investments	(213,096)	239,041
Net cash (outflow) from investing activities	(977,151)	(1,480,874)
Financing activities		
Advances received	455,171	-
Net movement in cash and cash equivalents	(148,728)	(28,720)
Change in cash and cash equivalents		
Balance at beginning of the year	848,347	877,067
Net movement	(148,728)	(28,720)
Balance at end of the year	699,619	848,347

The balance comprises:		
Cash at bank	628,315	763,417
Cash on hand	71,304	84,930
Total	699,619	848,347



NOTE A

Reconciliation of (deficit)/surplus for the year to cash (utilised by) / generated from operations.

	2017 N\$	2016 N\$
(Deficit) / Surplus for the year	(58,663)	500,069
Adjusted for:		
• Depreciation	166,073	390,120
• Profit on disposal of property, plant and equipment	(107,367)	-
• Interest received	(96,641)	(40,932)
Operating (deficit) / surplus before working capital charges	(96,598)	849,257
Working capital changes:		
• Decrease in trade and other receivables	576,064	781,185
• (Increase) in inventories	(462,336)	(199,601)
• Increase / (Decrease) in trade and other payables	259,481	(19,619)
Cash generated from operations	276,611	1,411,222

*Note: The represented figures are an excerpt from the audited financial statements for the year ended February 2017.

The AfriCat Foundation Trust

Registration Number T48/93

Statement of Financial Position as at 28 February 2018

	2018 N\$	2017 N\$
ASSETS		
Non-current assets	12,797,510	13,427,075
Property, plant and equipment	12,797,510	12,150,411
Investments	-	1,276,664
Current assets	3,503,074	1,935,358
Trade and other receivables	1,237,711	85,240
Inventory on hand (curios)	1,194,985	1,150,499
Cash and cash equivalents	1,070,378	699,619
Total Assets	16,300,584	15,362,433
FUNDS AND LIABILITIES		
FUNDS	16,137,126	14,597,399
Opening balance	14,597,399	14,656,062
Surplus / (Deficit) for the year	1,539,727	(58,663)
Current liabilities	163,458	765,034
Advances	96,013	455,171
Trade and other payables	67,445	309,863
TOTAL FUNDS AND LIABILITIES	16,300,584	15,362,433

The AfriCat Foundation Trust Statement of Profit or loss for the Year Ended 28 February 2018

	2018 N\$	2017 N\$
Income	6,384,385	5,088,824
Donations received	3,939,192	1,993,402
Adoptions	515,140	768,784
Curios, net sales	1,687,010	1,312,980
Day Centre activities	-	689,650
Profit on disposal of property, plant and equipment	-	107,367
Rent received Day Centre	240,000	120,000
Interest received on investment accounts	3,043	96,641
Expenditure	4,844,658	5,147,487
Project activity expenditure	2,756,700	2,384,658
Operational expenditure	2,087,958	2,762,829
Surplus / (Deficit) for the year	1,539,727	(58,663)

The AfriCat Foundation Trust Statement of Cash Flows for the Year Ended 28 February 2018

	2018 N\$	2017 N\$
Operating activities		
Cash receipts from donors	5,228,871	5,460,880
Cash paid to suppliers for services	(4,865,922)	(5,184,269)
Cash generated from operations	362,949	276,611
Interest received	3,043	96,641
Net cash inflow from operating activities	365,992	373,252
Investing activities		
Additions to property, plant and equipment	(912,739)	(1,749,054)
Proceeds on disposal of property, plant and equipment	-	984,999
Decrease / (increase) in investments	1,276,664	(213,096)
Net cash inflow / (outflow) from investing activities	363,925	(977,151)
Financing activities		
Advances (repaid) / received	(359,158)	455,171
Net movement in cash and cash equivalents	370,759	(148,728)
Change in cash and cash equivalents		
Balance at beginning of the year	699,619	848,347
Net movement	370,759	(148,728)
Balance at end of the year	1,070,378	699,619

The balance comprises:		
Cash at bank	1,069,678	628,315
Cash on hand	700	71,304
Total	1,070,378	699,619



NOTE A

Reconciliation of surplus / (deficit) for the year to cash generated from operations.

	2018 N\$	2017N\$
Surplus / (Deficit) for the year	1,539,727	(58,663)
Adjusted for:		
• Depreciation	265,640	166,073
• Profit on disposal of property, plant and equipment	-	(107,367)
• Interest received	(3,043)	(96,641)
Operating surplus / (deficit) before working capital charges	1,802,324	(96,598)
Working capital changes:		
• (Increase) / Decrease in trade and other receivables	(1,152,471)	576,064
• (Increase) in inventories	(44,486)	(462,336)
• (Decrease) / Increase in trade and other payables	(242,418)	259,481
Cash generated from operations	362,949	276,611

*Note: The represented figures are an excerpt from the audited financial statements for the year ended February 2018.