

**Painted Dog Research Trust**

**2018 End of Year Report**

**Compiled by**

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**Executive Summary** .....Error! Bookmark not defined.

## Executive Summary by Dr. Gregory Rasmussen

2018 has been the culmination of five years developing a team, infrastructure and programs for PDRT, and the beginning of very exciting phase. In this very short space of time, with training in mind we have constructed accommodation for up to 40 students, housing for staff and visitors, and I am really excited to have been able to hold eco-ranger workshops with the capacity to host 38 participants for a week. Furthermore we are just completing a water harvesting program that accumulate 500,000 litres a year and demonstrates that water harvesting is a viable option and negates the need to drill boreholes that in the long term are not sustainable.



Our 250000 l water pit full after a large storm

In 2018 there have been a number of highlights and new developments, perhaps the most notable is the development of our conservation education program in schools with conservation clubs being set up and day trips to PDRT for hands on learning experiences. This program annually reaches some 2000 children.



Zulu demonstrating radio tracking to students

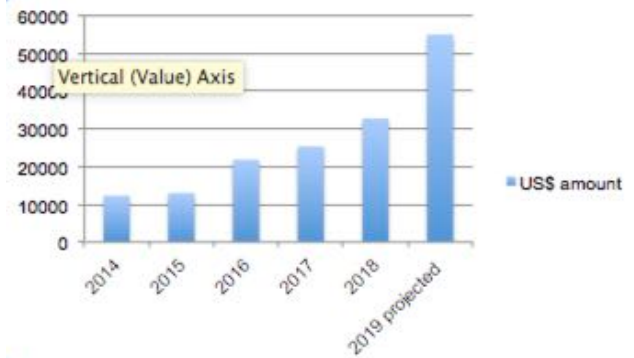
Now being integrated into this program is our new and perhaps very bold initiative is not just try to protect habitat but create it through a reforestation program. Sadly if we do not protect our habitat all our conservation efforts will be futile. Here we have started working with the children to grow seedlings and plant them out. We have plans to build a significant arboretum that will produce 50,000+ trees a year.



Sizinda's first lady graduate student Loswitha Murugani

With education in mind at the graduate level, I am delighted to 'lose' two of my students who were awarded scholarships to pursue master's degrees at Leeds University, UK and Stellenbosch, South Africa. Also I am so delighted to report that we have our very first graduate student from here in Sizinda who was going to have to curtail continuing her education due to lack of funds, we took her on attachment, and then covered her tuition and housing fees. Now she is the first young woman from this rural area ever to attend University.

With local community in mind we are not only delighted to highlight that “money in the pocket” community benefits have been rising steadily not just in dollar amount but in the number of individuals that benefit. On this note we are excited to have a shared vision with the five country Kavango Zambesi Transfrontier Park area (KAZA) , which are wildlife areas connected by sensitized and concerned communities that benefit from protecting and supporting nature. So with this shared vision, we are very proud to be nominated by the Zimbabwe KAZA secretariat, as the model community project for Zimbabwe.



“In pocket” \$ income to the Sizinda

Last, but not least, the Painted Dogs!! Our immediate 6000 km<sup>2</sup> study area is arguably one of the most complex to conserve, being a mix of hunting and photographic safari areas managed by a multiplicity of stake holders and exacerbated by rapid human expansion and tourism ventures in the Vic Falls area many of which are compatible with booming business but come at the expense of conservation. This said we have managed to locate six packs tenuously also navigating this complex transfrontier landscape that is fraught with danger to include



Kettle, fitted with the new generation anti snare collar

snares and speeding traffic on a tarred road through the Zambezi National Park. Here a number of dogs are either killed outright or suffer broken legs. Regarding snares we have successfully managed to test the first of our new generation anti snare collars and are happy to report that 'Kettle' the first dog collared is alive and well. Sadly some of his un-collared pack members are missing and we presume they were caught in snares and did not survive.

We are also happy to report on the successful satellite collaring of 'Waltz' of the Matetsi pack whose territory transcends into Botswana and is giving us vital information on trans boundary movements. On a very sad note we have to report the results of our analysis of den disturbance by tour operators, film crews and some researchers which categorically shows that this disturbance results in less food to the pups, and those pups not only grow up as adults with short legs, but those short leg adults get 15% less food. A scary finding that has long-term ramifications for survival of painted dogs in the areas of high den disturbance!

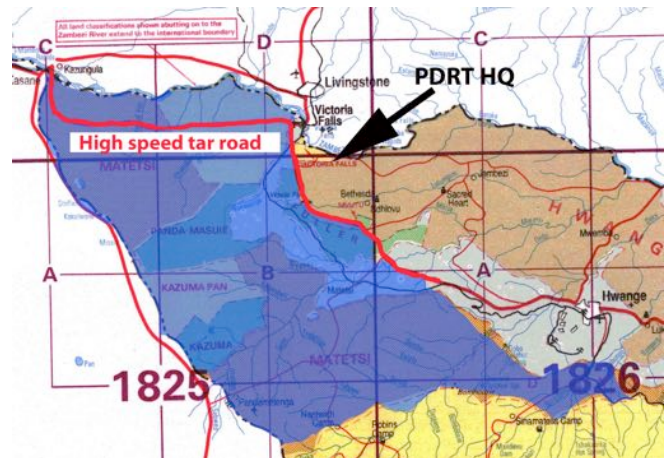


On a more positive note Dr. Greg is planning to assist with human wildlife conflict in Hereroland, Namibia in collaboration with Cheetah Conservation Foundation.

Also Dr. Greg has been nominated by the KAZA carnivore coalition to champion carnivore conservation issues in this northwest region of Zimbabwe.

## Research Report

Painted dogs are red listed as endangered with a declining population trend. It is estimated that 6000 individuals exist in 600-1000 packs in the whole of Africa (IUCN/SSC 2013). Their persistence thus relies on effective conservation and management strategies Africa (IUCN/SSC 2013). Based Near Victoria Falls Painted Dog Research Trust (PDRT) aims to undertake research that will help to improve the conservation of painted dogs in Zimbabwe and locally in the KAZA region and our immediate study area covers some 6000 km<sup>2</sup> in a very complex multi land user environment.



Our research is aimed at determining the current status, distribution and the threats to painted dogs in our study area. Of particular importance is to understand dispersal corridors and preferred routes so that important corridors can be identified. Although the main threats to painted dogs such as snaring, loss of habitat and cars are widely known, our research also incorporates some of the less predictable threats such as parasites, genetic viability, stress and den disturbance.

Collaring of dogs is being done so as to understand ranging behaviour inside and outside protected areas, habitat use, distribution, transboundary movements and dispersal. In 2018 one satellite collar was fitted and the new anti-snare collar fitted in 2017 has shown to be robust and not a hindrance to the dog Kettle wearing it. Kettle was found with a snare that had cut into his windpipe when we collared him and he would not have survived were it not removed and treated. Sadly five of the other members of the pack are missing presumed dead and it is believed that snares and road traffic accidents are the cause. It is a sad

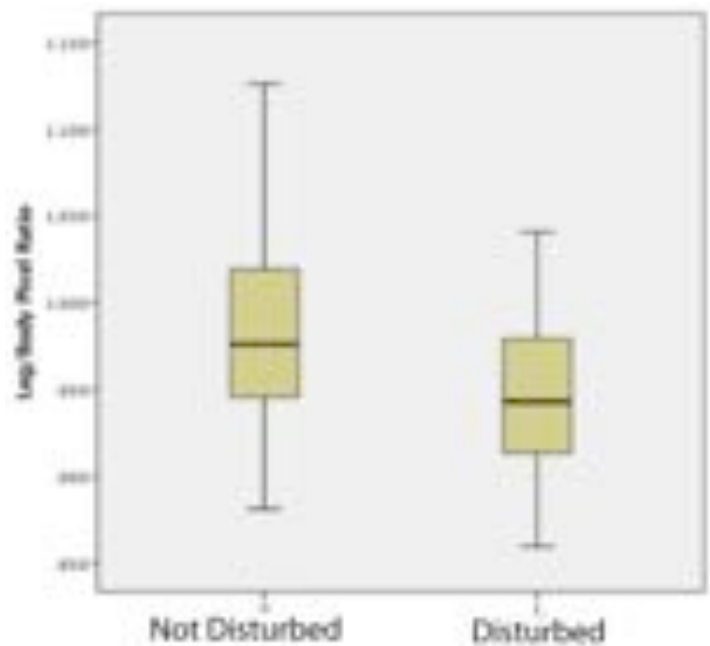


Kettle with snare before treatment and being collared

testament that Kettle may only be alive because of his collar. Because of a major highway, the dogs in this area sustain and extraordinarily high number broken legs. In 2018 this figure was 4 and none of these dogs were seen again. This highlights need to ramp up any road awareness campaigns we can come up with. The collar program we are now moving towards making these collars solar powered in conjunction with belt service and power film solar, it will be a great day when this can be achieved as the collars already the lightest ever painted dog collar

In the Victoria Falls / Matetsi area we know of a total of 33 individuals in a total of six packs which represents a decline since 2016 where 44 dogs were recorded. Breeding was recorded in two packs, no breeding in two packs, and unknown breeding in two packs. During the period from Dec 2015- Dec 2018 six functional packs have been extirpated and replaced with new founder packs representing a high pack turnover. Based on Hwange data when the population was functional between 1988-1999 where the pack lifespan was in the order of 36 months, there is cause for concern for this corridor population that is now demonstrating a reduced mean pack life of 15 months in 2018 from 19 months in 2017. As most litters born are now to females who at their first whelping produce more males, the worry is we will have a sex skewed population emerging. These data highlight the urgent need in this human dominated landscape to get satellite and anti snare collars on the packs.

Data analysed for Mana Pools Zimbabwe now clarifies the effect of disturbance by tourists, film crews and researchers who visit painted dog dens. Here the data show the following statistically significant impacts : Mean leg length/body ratios in pups are 4% shorter at disturbed dens which continues to manifest and results in adults with leg lengths that are 3.5 % shorter. It is believed that this reduction in leg lengths also contributes to reduced hunting success as average belly scores in adults emanating from disturbed dens are 12.4% less than those not from disturbed dens and this is attributed to the shorter legs reducing overall hunting success.



## Education

**Eco-ranger programme.** Painted Dog Research Trust hosted a two day Ranger Training Needs Assessment workshop on the 5<sup>th</sup> and 6<sup>th</sup> March 2018 at Sizinda. The primary objective of the workshop was to establish the training needs for rangers based on expert field observations from ZIMPARKS, Forestry as well as Communal Areas scouts. An array of training short, medium and long modules were identified and categorized into four thematic areas namely Biodiversity Conservation, Resource Protection , Education and



## Awareness, Human Resource Management

Output from the workshop was considered central for the development of relevant modules for implantation through partner institutions such as government departments, Universities and Research organizations. We were also delighted to have a follow up and PDRT hosted a Geographical Information Systems training workshop for a week. Happily our venue successfully housed 36 people and the local Sizinda ladies team managed all the catering and pre and post workshop preparation and cleanup. We are also privileged to have our Chief , Chief Mvutu come to our workshops and sometimes stays overnight. An honour indeed!

It is envisaged that with implementation, the training will address the knowledge gaps that currently affect rangers' ability to effectively report the status of environmental issues in their areas of deployment. The training needs identification process prioritises the field rangers and seeks to strengthen their appreciation of issues of conservation concern, field based data collection and handling. It also recognizes the front line row of the ranger in community engagement.

**Schools:** The month of February 2018 witnessed the starting of Painted Dog Research Trust schools outreach programs. The program started with three pilot schools, namely Sizinda Secondary, Monde and Chisuma Primary Schools that are in Sizinda area and close to PDRT base. Our Education Officer Zulu visited all grades separately and taught pupils about the aims and objectives of PDRT, Painted Dogs and their endangered status as well as the aims and the objectives of the PDRT centre. The lessons covered conservation education topics which were ensured to be inline with subjects taught in the school curriculum. Topics like causes and prevention of deforestation and soil erosion, importance of conserving wildlife, prevention of veld fires and many others were covered and these were inline with subjects like Geography, Science and Agriculture. A total of 226 school visits were made, and 1325 pupils benefited from school visits lessons. To create a future nature caring generation, Conservation Clubs called the 'The Packs' were formed in schools. Each school had more than a hundred conservation club members. The Conservation Clubs in each school were involved in various nature conservation activities such as gully reclamation, indigenous tree seed collection and planting, wire crafts making and permaculture gardening programs.

Children from the three pilot schools were also given the opportunity to visit PDRT conservation ecology centre as part of reinforcing their learning about nature conservation. The ecology centre as an educational centre has a good set up which demonstrate conservation models, that is, water harvesting, Permaculture (Permanent Agriculture) gardening program, use of solar as a source of the energy , agro forestry and above all its general appearance as a nature



conserved place allows a number of nature (educational) interactive programs to be conducted at the place. A total of 630 pupils visited the center, and had the opportunity to do educational nature interactive programs that promote discovery learning about nature. At the center, pupils participated in programs and activities like compost making, bottle watering in the garden, mulching, and this gave children another golden opportunity to learn a lot and get the much needed hands on experience as far as contributing towards conserving nature is concerned.

PDRT conservation programs in schools received an overwhelming support from school administrators, and teachers as they believed the program would lead to an improved pass rate in some of the subjects covered in the schools curriculum. Despite their tight schedules, some headmasters made an effort to accompany school children that visit the center for the educational programs. During school visits the PDRT officer had the opportunity to discuss with teachers how they can integrate conservation in all subjects taught and teachers welcomed the idea of a workshop to teach them how they can integrate conservation in the teaching of various subject!

### **Development & Construction of PDRT site**

Finally NO more tents! Most of our basic needs infrastructure are in place with water and thatched roofs over our heads as well as somewhere for students staff and visitors to call home. We still need funding for a significant number of batteries to run our solar system and a solar engineer to hook them all up, but we really are getting there. Our laboratory also doubles up as a teaching area for Rangers and students alike, and we are open to be able to assist other organization's wishing to be able to run affordable conservation based workshops.

### **Community based programmes**

And finally and very importantly we are delighted to find our community benefit model based on "*Cui Bono*" working.

Stakeholders and communities in wildlife areas are crucial to the survival of the ecosystems they inhabit, and consequently "meaningful" engagement is critical. However what is meaningful and "*cui bono*" (who benefits) is often not critically evaluated both from the perspective of the conservation bodies objectives, nor the needs of rural communities to ensure their buy in. *Cui Bono* asks who will benefit from whatever program is being suggested and conversely and perhaps more importantly who will not benefit? Furthermore these questions must apply equally to both the target species /habitat and indeed conservation itself, as well as to the communities that can be deemed as an integral part of the ecosystem. In short *Cui Bono* mandates that everybody must get some benefit the conservation initiative and a "slice of the cake". If this does not happen and only a few benefit well projects are generally doomed to failure.

Here at PDRT we are proud can share that the decades of lessons learned have culminated in a project that not only meaningfully contributes to the wellbeing of the Sizinda community, future generations of conservationists, and Painted Dogs, but also provides a conservation model where

conservation is integrated into minimising resource utilisation, building design and training. This project, as well as meaningfully touching the lives of the whole community also by thoughtful building practice harvest water, and to date has secured significant CO2 emission reductions. This model has community buy in to the point that they not only support the project, but are adopting some of its conservation strategies on their own volition. And as for the community, well we rotate employment so many get something, all buildings are thatch so 50 women annually get income and we assist them with their own grass cutting need. And what may seem as an esoteric service, we assist the community get cement at an affordable price for all their building projects. We also facilitated 16 kilometres of water pipeline so the homesteads could fulfil their dream of a tap at their homestead. Add to our education programme we now feel that every one gets something and there is great receptiveness to our conservation messaging.





