



## PDRT Annual report 2016

### Welcome to Dog Tails from Painted Dog Research Trust.

As we reflect on last year's progress, we are delighted and proud of what has been achieved in less than two years since founding PDRT. We are going from strength to strength, and optimism from both within PDRT and the stakeholder communities with whom we interact is immense for 2017.

The year started with Greg travelling across the US and a number of European countries visiting zoos, making presentations, and helping coordinate R&D for the new lightweight, anti-snare satellite collars. The effort by all the coordinators was and so greatly appreciated. The most whacky and fun fundraiser was Portland's Painted Dog fashion show featuring 'painted dog dressed' rescue dogs.

By April Greg was back in Sizinda determined to complete construction of study/sleep rondavels to house the current students. They were still shells with a long way to go, but after years in tents, more solid accommodation was of the highest priority.



May saw the beginning of the foundation work for the flagship Conservation Ecology Centre (CEC), with plans to have enough of this laboratory/lecture hall completed to take advantage of the following year's rainy season as the time to lay the concrete slab for the 85 foot diameter structure. Always with conservation building practices on his mind, Greg spied an abandoned coal mine rig fly-wheel that will be a key recycled element in the second floor construction. Greg's local nickname is 'Tegwani', the Hammerkop bird that recycles rubbish including clothing, tin cans, wire, etc. into the tangled weaving of its nest.



It wasn't long before Greg was in the field with his students trying to locate new packs and find PDRT researchers' gold...Fresh Painted Dog Poop! This "gold" is panned for parasites, stress and reproductive hormones, and prey hairs. Within a couple of weeks the team was onto a new pack of five dogs that we called the Fuller pack. This was in the forestry area; the Alpha female was briefly seen and she was heavily pregnant. Great excitement until the tracking trail went cold, but we did find cheetah spoor where nobody even thought they existed anymore. Then diggings were found of a female dog scouting for dens! Hopes were up again and camera traps set. A week later the team returned to find one trap missing and no painted dog pictures on the other that had taken a number of shots. The scout was adamant that it was an elephant responsible for the missing camera, but perhaps you the reader can decide the probable miscreant?



Endless days followed trying to find the Fuller pack but they remained elusive until late August when they were seen missing three adults but happily with three pups. These dogs live on the “hard edge”, that is, close to communities where access is easy to set snares. Trying to better our understanding of this activity is one of our students, Tendai Nekatambe, who is doing her Masters which includes engaging with communities to garner their perception and understanding of wildlife.

Conservation successes are often hard to measure and sometimes few and far between, and so in June we were ecstatic to receive a call from the Mopani Ngoma community some 60 Km from our base outside Victoria Falls. Due to the information from one of our satellite collars we had become aware that the dogs were using their area, so the PDRT team had gone on a “Painted Dog sensitization mission” hoping the villagers would have a new understanding of painted dogs. It had worked!! The community located a den

and wanted to know how they could help. And help they did...they assisted us with the collaring exercise and community scouts were employed and deployed to protect the den, which they did admirably. In spite of the den being in an area vulnerable to human disturbance, the scouts ensured nobody went near the den except the dogs and our camera traps verified this. They even reported a pride of lions was close by and asked what could they do. Happily the Mopani Ngoma pack also detected the danger and moved to a new den. With all pups surviving, when the Mopani Ngoma pack left the den to go nomadic, they were 18 strong. As



Pups of the Mopani Ngoma Pack, being greeted by the alpha male

a thank you, PDRT left a football kit for the local team as well as a community donation for their support. With funding, we are hoping to expand our support for this community. We would like to develop an income generating project such as snare art. We also wish to trial a parabiologist programme similar to the one successfully implemented in Bolivia by Erica Cueller. This program trains the local community in biological monitoring and engages them in the conservation effort.

Back at base in Sizinda, PDRT had its first guest lecturer, Dr. Edward Mufandeadza, formerly with the Forestry Commission, and now lecturer at Lupane State University. Dr Edward worked with the students on protocols for grass collection and identification. It is planned for Dr. Edward to return annually and increase the number of students as we manage to develop basic accommodation facilities. In the longer term once all the proposed facilities are finished, we are hoping to hold many conservation field biology courses with experts from many fields.

Finally two student rondavels were nearly complete. With roof frames ready, the Village women's grass cooperative was hired by PDRT to cut and harvest the new August thatching grass for two study sleep units which will house eight students. Local thatcher's completed two houses in one week. All still on schedule for a year-end completion.

Just a few small items: the electrical wiring had to go in, and the walls plastered. Even before completion the buildings were occupied during 'siesta' time as they are so cool. The students also think they are "Cool".



Back in the field, this time Greg was in Mana Pools in the Zambezi Valley with Tafadzwa Shumba, PDRT Graduate student, who having completed a post Graduate Diploma at Oxford University's WILDCRU, is now getting the necessary skills and data to be in a strong position to do his Masters. Here fecal samples were collected and camera traps were set at dens. There are seemingly good numbers of dogs, so "good" in fact that the BBC was filming the dogs all year. However the PDRT data are highlighting that all is not as well as it seems....

Firstly, from our long term monitoring of the population we know large numbers of individuals continue to go missing, with us not knowing their fate. The obvious or rather quick answer to this is that they disperse, to form new packs and so ending happily. Sadly the data from the dispersing dogs that have been collared shows that they die very quickly due to being snared. As males are the 'long distance' dispersers, this year we were therefore delighted to put GPS collars on two males, with the objective that when/should they disperse we will be able to understand their routes and destinations so that such areas can be better protected for the conservation of the species. Inexplicably the collar from the male Treya, from the Nyakasanka pack that was being filmed by the BBC, simply disappeared off the dog. The collar was transmitting well; thus had it fallen off we would have found it. This disappearance strongly suggests the collar was illegally removed and switched off or destroyed.

Also of hidden concern are probable genetic issues emanating from no immigrating dogs and known inbreeding from closely related individuals forming packs. Out of the total five packs we know of in and around Mana Pools, four of them are closely related, and in two packs inbreeding is occurring. All of this has the capacity, in the longer term, to collapse the population. On a positive note we nearly have sufficient data to run the genetic analysis to support or deny the hypothesis and then be in a position to recommend remedial action if warranted.

Equally alarming for the population is the disturbance of the dogs by tour operators and photographers during the denning season. This is the most critical period for the dogs when they have to work hard to meet the exceptional food demands of their pups that need to be fed often and regularly to ensure they grow fast enough to be able to go nomadic with the pack at 12 weeks of age.

Data from camera traps is disturbing and has, not surprisingly, shown not only that visited dens exhibit different activity patterns from undisturbed dens, but worryingly the disturbed dens are visited for a significant two hours, thus resulting in less food for the pups that rely on vast amounts of regurgitated food during the denning period. PDRT data now also confirm that dogs born at human disturbed dens grow up to have significantly shorter legs that will affect their hunting abilities.



Kanga pack pups playing undisturbed at their den whilst being ‘studied‘ by PDRT

Back in PDRT Sizinda, much to the delight of the community, another blast deepened the water catchment cistern by two metres, thus employing over 25 village households to chip the loosened rock into quarry stone for concrete mixes. By quarrying the stone locally, to date we have saved 15 tonnes of CO2 emissions and a granite hill from destruction by commercial quarries. It’s our bit to mitigate climate change. The cistern currently holds 350,000 litres (78,000 gallons) of rainwater, with future blasts to provide a total capacity of 1,000,000 litres which could well provide all PDRT needs even if at our target capacity of 40 students, staff, and lecturers for the whole year. If achieved, this will be a first for a project of this scale to be water self-sufficient.



At the beginning of December the first rains came, essentially hallmarking the end of the field season. But there is always time for field trips even though the risk of getting well and truly stuck in the mud is omnipresent. With a full student team, we went searching in the south Matetsi area for a pack of five dogs that had been reported. After days of tracking we found spoor, some of the team got a two second glimpse of the dogs, and importantly, poop was collected. It poured with rain and we had to wait a day for a river to subside before we could head home. The students were at least delighted that the field trip, “however wet,” had been extended.



The amazing rains had now set in and the rainwater harvesting pit we blasted and dug was now a pond & new breeding site for four frog species, two terrapins (freshwater turtles) and a flurry of bird species.

As the end of the year approached, the walls on the student homes received their plaster coatings, concrete floors finished to a polish, and window glazing all completed by Christmas Eve!



A multitude of other projects were also accomplished: a Guest House, Staff House, and Volunteer House; and fencing of the entire 28 acres comprising PDRT.

Envisioned for the year ahead is to continue toward completion of the Conservation Ecology Centre, and building a new Conservation primary school. Currently the Sizinda primary school children have to walk a total of 16 kilometers (10 miles) a day to go to school.

Other projects for 2017 are to finish Greg’s cottage, as he’s the only person left to be snug and dry in the rainy season. Finally, we hope to build greater water storage capacity, and to construct an ablution block with disabled facilities adjacent to the student rondavel complex that will be bio- remediated to ensure that all the effluent will be free of soaps and any other pollutants.

Right at the end of the year, Greg had to go on ‘holiday’ with the PDRT Board to try and find painted dogs. He got his Christmas present!!! The five dogs he had been searching for on and off all year finally showed up. Everything green and so what a way to end the year, making the total of dogs known to PDRT in the study area 137 individuals.



**The elusive five, just before the year ended**

We would like to thank all of you for your support. None of this could have been achieved without you and particularly those who work tirelessly to set up fundraisers, all are best friends of PDRT.

Finally.....Please support our most important campaign

<https://www.gofundme.com/PDRTZimbabwe>