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Welcome to Dog Tails 2022 Annual Report

Message from the Founder/Executive Director

Due to the combination of the Zimbabwean government taking a strict precautionary approach and people responding appropriately throughout the pandemic, we have finally had a COVID-free year in Zimbabwe. Border restrictions were eased, masks officially came down in August 2022 and at last we could all see smiles and be sure who was saying "Hello!" Not so encouraging however, was the 2021 – 2022 rainfall that was so desperately needed post-COVID, yet only started here in the communal lands in late December/January and finished in March. Once again, 'climate change' rang its ugly bell, with the rain being characterized by downpours and then nothing, leading to crops wilting and once again failing. A bitter pill for the community but more so for the women who traditionally have had less access to education and opportunity. Gender-biased, educational and financial poverty is an issue that needs to be given priority, and we are constantly on the lookout for ways to redress the imbalance. Climate change and invasive plant species need to be on every conservationist's lips. Whilst it's a daunting task, and not one solved in a heartbeat, with habitat rapidly degrading or disappearing, it is one where we all must play a part. To achieve this we are delighted to have realized a long-term goal to build a research arboretum with a target capacity of 50,000 trees. To secure their future, we have continued to build more water storage, and most importantly, we have planted the first Miyawaki "Pocket Forests" in a semi-arid communal land in Africa. It's a start!

Also gaining momentum is our deeper understanding of another colossal proportion conservation challenge, namely "Wildlife Vehicle Collisions" (WVC). These are a scourge not only within our 600,000 hectare study area, where some 4-8,000 birds, reptiles, and mammals are killed annually, but nationally across Zimbabwe that this number could be as high as 120,000 vertebrates. Regionally in the Kavango Zambezi Trans-frontier Park initiative (KAZA), where the vision is to create an interlinking wildlife landscape across five countries (Zimbabwe, Botswana, Zambia, Namibia, and Angola) and extrapolation throughout the KAZA landscape, we now conservatively estimate up to half a million vertebrates are killed annually. I suspect this conservation challenge is probably one of the greatest I have faced in my decades-long career. The magnitude of this challenge is that it makes my successful decade of work of stopping ranchers in Zimbabwe from shooting painted dogs pale in comparison. So having been tasked by the KAZA Carnivore Coalition through research to develop successful solutions that can be adopted as a common strategy throughout the region, it is clear PDRT has its work cut out for some years to come.

Finally, I am proud to share that 2022 brought tears of joy to my face when following seven years of funding and mentorship from PDRT, and through her dedication and hard work, Loswitha Murugani passed her BSc honours degree with flying colours and earned a first-class degree, which was awarded at Chinoyi University of Technology. Loswitha is the first-ever woman in the extended rural communal area in NW Matabeleland Province to graduate with a B.Sc. Naturally, Loswitha is now a member of the PDRT team and a role model for other women in both education and conservation.

Sincerely

Dr. Greg Rasmussen
Founder Executive Director
Painted Dog Research Trust

Summary of 2022

With the last rain falling in April 2021, the beginning of the year was looking bleak and overshadowed yet again by drought. Worse for us was that we wanted to start to do our bit towards mitigating climate change by improving in some way the rural community landscape. And… that needed rain! Here at our newly completed nursery, a number of plants were ready for planting out what was going to be the first Miyawaki pocket forest in a degraded semi-arid landscape in Africa. The concepts behind pocket forests were proposed in 1980 by Japanese botanist Akira Miyawaki who realised that by reproducing natural dynamics, and most importantly by dense planting of different indigenous species trees, microbial diversity was also enhanced. Miyawaki's technique was largely ignored by the western world and only recently have his pearls of wisdom based on reproducing the natural dynamic of a forest been recognised, including mutual associations, healthy competition and more species diversity at all levels. We prepared the holes but the soil was dry. On New Year's Eve it rained heavily, and so on New Year's Day, with all PDRT staff away, I called Loswitha to come off holiday break and we planted the trees, and the first pocket forest was born.

Sadly, widespread in the Sizinda communal land there is a particularly toxic non-native plant, *Senna obtusifolia,* that 100 years ago arrived in North Africa in horse feed from South America and spread throughout the continent. Even dried, it is toxic to anything that eats it. Worse, it's allelopathic[a] and inhibits germination and growth of surrounding plants. This plant is rampant over thousands of km^2 of the adjacent landscape to the point of even being in the national park areas, causing field abandonment in over 85% of the landscape. In January, thanks to the support from the French Embassy with a welcome mandate to benefit both *women in the community and the environment*, we started to tackle the invasive species when it flowered. The women joined forces to make harvesting groups and there was a pay-out per truckload, resulting in many acres being cleared! As this was all post-COVID, it was special to support the hardest-hit sector of the community, namely women. Equally satisfying was to see 42 acres of fields cleared of an ecotoxic plant that resulted in a shared harvest pay-out of US$6,421. Shredding fun was shared by all, as an invasive species composting module was added into the PDRT hands-on school curriculum.

Within the same project, and with 50% of the labour being women to continue to ensure water security, the month of February saw us build another water holding tank to get one step closer to achieving water security for our research arboretum and afforestation dreams.

As for the dogs, the research team was out checking camera traps when the dry spells in the rain-sodden terrain allowed. In spite of the intensive effort, no dogs were detected and their fates were hanging in the balance. We were still eternally hopeful that the Musketeer pack that we had intervened with in 2019 would appear, but there was no sign of them. Being stuck at the PDRT base camp resulted in a backlog of camera trap data being cleaned up as it is easy to get buried in the tens of thousands of images that can accrue. The latter is particularly applicable when the wind finds a grass blade or branch to continually wave in front of the camera, resulting in thousands of images of nothing! This period also coincided with the extended visit of Gert, a Masters' student from Wageningen University in the Netherlands, as Dr. Greg was his external Master's supervisor and Wildlife Vehicle Collisions (WVC) was his topic. As mitigating WVC is a focal research, it was a great brainstorming

(a) (**Allelopathy** is a biological phenomenon by which an organism produces one or more biochemicals that influence the germination, growth, survival, and reproduction of other organisms)

opportunity for the PDRT students, although a long way to come for one-on-one supervision. Gert passed with flying colours and the brain-storming assisted PDRT to continue to map the way forward and refine our WVC mitigation plan.


Loswitha setting a camera trap

The rainy season also brings an additional challenge for our camera trapping efforts as poaching activity ramps up. This is because poachers, both on foot and more recently in vehicles, know that with rain storms hiding their tracks they are harder to follow, thus thwarting anti-poaching units. With our camera trapping area being on the poacher's highways, this means that we suffer higher camera trap mortality, and from January to April alone, nine camera traps were destroyed by poachers. This happens when poachers know they have been caught on camera and they destroy the evidence with axes if on foot, and wire cutters if vehicularised. A loss indeed, but camera trap data are too valuable, and happily some miscreants get caught! Next year, in what is more like a welding/construction exercise, in "poacher transit hotspots" we plan to field poacher/elephant-proof camera traps and some of this data will assist law enforcement agencies. Oh, the joys of human-wildlife conflict!

With Bongo's tail and the field season being in full swing, Dr. Greg was back home in early June after his last U.S. tour stop in Boise, Idaho. In his short absence, PDRT research intern, Alice Mposi, had proudly represented PDRT at the French Embassy in Harare to offer feedback on the PDRT composting of invasive species initiative, and at PDRT HQ in Sizinda when the Embassy came to see the project they had supported. Ambassador Chevallier was introduced to PDRT Ambassador Bongo and they hit it off. In the six weeks Dr. Greg had been away, the PDRT construction team had been busy getting the long-awaited seven-unit shower block completed with wheelchair access and ready for electrification. With torches and bucket showers being the order of the day for several years, there was delight all round. This was particularly timeous as in July, 20 international graduate and undergraduate students joined us for the PDRT course, "How to Be a Field Biologist," in conjunction with "Made in the Wild," created by Zoologist Jack Randall, formerly one of Dr. Greg's students from Oxford University.

Painted Dogs

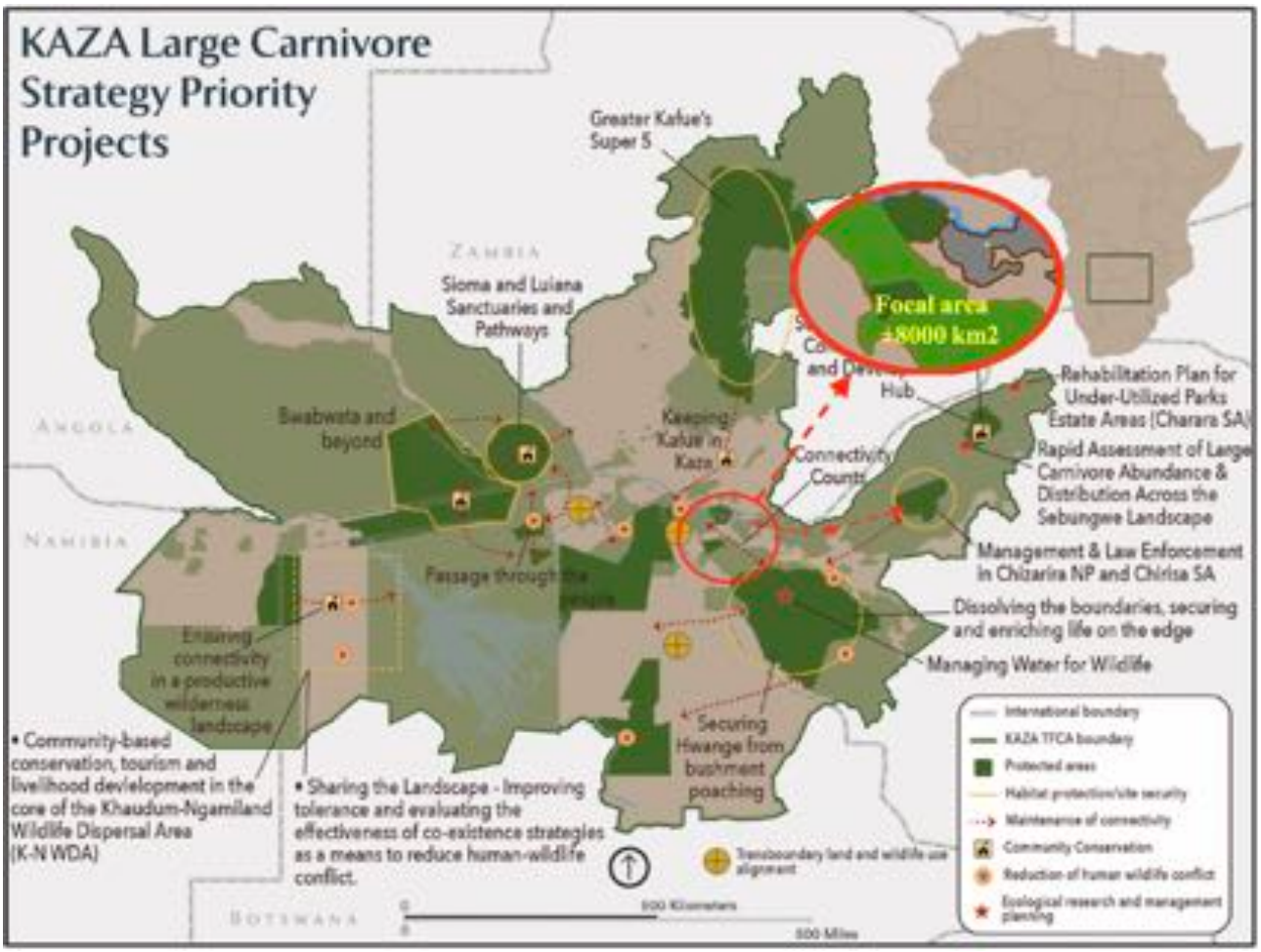
Since their last sighting in late-2021, the fate of the Musketeer pack was focal, for in 2019 we intervened to save Anne, the alpha female, and her pups from starvation. This was consequential to three dogs being hit on the Victoria Falls to Kazungula public access road that runs through Zambezi National Park and Matetsi wildlife areas. This precipitated the pack being too few to hunt when pups were born, and Anne had to guard and try to nurse them. It was now July 2022, and once again there was no news of the Musketeer pack. A breakthrough was to be had in early August when our camera traps in Panda Forest detected moonlight images of single dogs in different locations. They were clearly hunting, for all images except one were blurred. One single image confirmed that not only had "Hasha," one of the pups saved in 2019, survived, but for the first time in several years, a pack had raised pups into adulthood. Then there was a sighting of ±ten adult dogs and we knew the Musketeer pack was alive and well. There were rumours of a den yet in spite of intensive camera trapping, we were unable to narrow down the location as from a single point during the denning season the average distance dogs forage from the den is nearly 10 km thus making a search area of ±35,000 hectares. This is further compounded by the fact that hunting forays from the den are often in the magnitude of 26 km from the den. In one case, Dr. Greg's data recorded a pack hunting 41 km from their den. They had finally captured a kudu bull and at 00:50 in the morning with full bellies, they purposefully headed back "home" and returned before sunrise, …. a staggering five hours and 25 minutes later. Indeed, they are like ghosts, and it is no surprise that their populations are so often grossly overestimated.

In August, with two vehicles conducting 100 km (60 mile) circuits of sweeping roads with branches and looking for tracks, the PDRT team was in a frenzy to find the elusive "Scarlett (*aka painted)* Pimpernels. " That took us close to the pack with one set of footprints making it clear they had pups. They were just nomadic but still being "cached." Even at that age, the pups have disproportionately large feet and if well-fed, by seven months can at a glance, be indistinguishable from yearlings. Finally, the pack was not seen by us but valuable photos came in confirming the pack status. They numbered 17! Four of the original adults and two of the original pups (now adults) were there but missing Anne who would have been 11 years old. From their second litter unaided by PDRT, they raised four out of five pups to become yearlings. That made the pack ten strong and they had seven pups! As for the two 'missing' pups from 2019 that became yearlings…that conundrum was solved from more camera trapping that showed the existence of a new pack we named the Swiss pack, and they were two of the founders. Without any doubt, "Operation Anne" was a resounding success and in particular we must thank the senior ecologist from Zimbabwe National Parks' head office for her rapid response to facilitate our intervention. Without that help, 17 dogs would have probably been but a fragmented few.

Keeping the dogs safe is another matter for though they had avoided the Victoria Falls to Kazungula road for nearly three years, they were now only two miles away. While they did avoid it, and moved east only to have one adult and two pups killed on another public access road running through the Matetsi safari area that ironically ends at Robins Camp, Hwange National park. Tragic, but they remained still 14 strong dogs and viable.

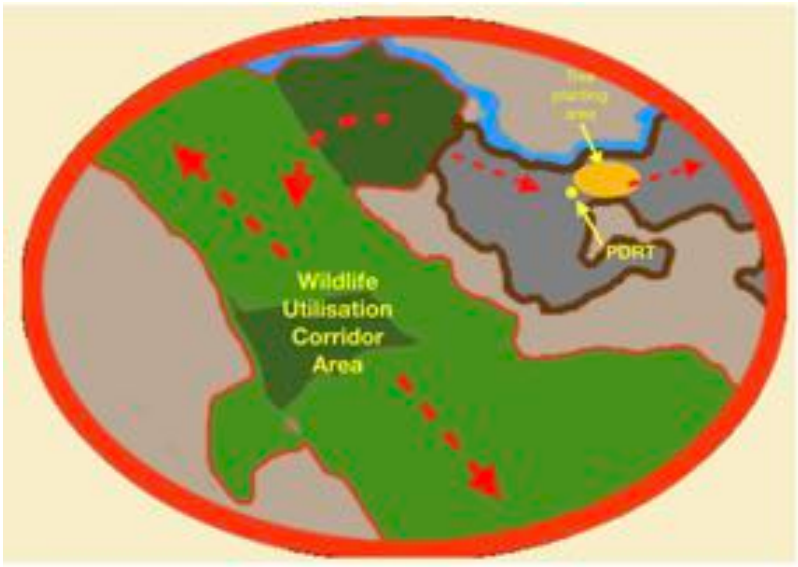
Habitat Restoration

Where we are located in the Northwest of Zimbabwe, we are not only more prone to droughts, but the habitat in the communal landscape has been for decades declared unsuitable for agriculture. Unsurprisingly, that hasn't stopped people from trying



agriculture, so one by one fields have been abandoned and land degradation and biodiversity loss accelerated. Woodland ecosystems have been disrupted and both the ecological and economic value of the landscape is compromised. This familiar story however impacts wildlife at a much larger scale as its existence in this area means that vital wildlife corridors of the Kavango--Zambezi Transfrontier Conservation Area (KAZA) are threatened. KAZA is not only the largest trans-frontier wildlife landscape in Africa but it is critical for painted dog connectivity. Communal lands are key corridor dispersal areas where sensitized/tolerant communities must exist. At a recent "State of KAZA Symposium" attended by the five signatory countries (Angola, Botswana, Namibia, Zambia, Zimbabwe), it was identified that participation/engagement with rural communities was low and the key to achieving the KAZA vision was to "instigate bold and innovative approaches to garner community engagement and to maintain/reinforce habitat connectivity." As an active player within the KAZA Carnivore Coalition, (KCC), PDRT is committed to not only playing its part but also with science and research being our barometer, being integral to the "***bold and innovative approaches***" so desperately needed

Within our focal study area and specifically with corridor linkages in mind, we have two very distinct areas of operation. The first is the KAZA TFCA Hwange-Chobe- Makgadikgadi Focal Dispersal Area, which is predominantly for wildlife utilization (green on map). The second is the communal area (grey on map) that is currently degraded but due to its proximity to the Zambezi river, is seen as a connectivity route for wildlife dispersal to the other key wildlife populations. On the IUCN Painted Dog Action Plan, this area is designated for painted dogs and cheetahs as a dispersal and recovery area but this is simply a paper map exercise. Consequently, along this corridor where PDRT is located, at its bottleneck, our habitat restoration is being led by Loswitha. This is thanks to the American Association of Zoo Keepers (AAZK) through their "Trees for You and Me" grant where we are providing fence and trees for pocket forests in our surrounding rural villages. Here, Loswitha has identified community members that wish to be "pocket forest guardians" and at the end of each year, it is planned to pay the guardians based on how many trees have survived, along with an additional bonus for those that exceed ≥50% in the first year.



Our pocket forests start small (200 - 2500m2/ 250 – 3000 trees) and are densely planted with mixed indigenous tree species. Trees in pocket forests establish faster than trees form communities. As there is no relevant research, and particularly for indigenous tree species, Loswitha is working on this from multiple angles. This is particularly salient as we are working in a very harsh arid environment and many of the founder trees we are selecting are both pioneers and drought resistant. Her work includes tap root development to optimise plant out time and a method for rapid determination of seed quality, right down to the vital soil bacteria and fungi. The elements of her work are in the research section.

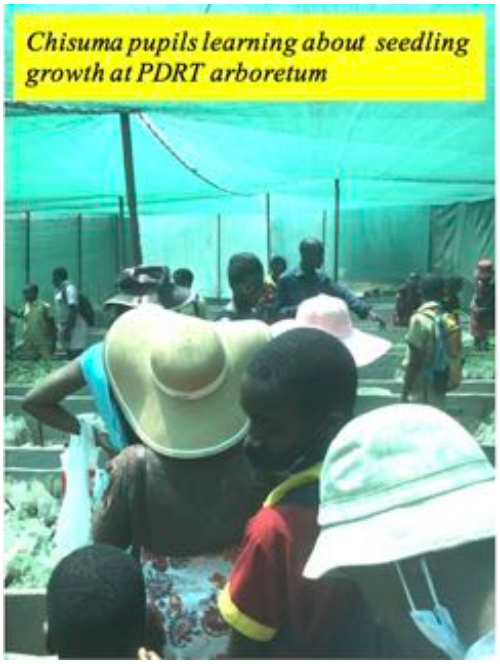
Our vision is to create multiple islands of biological endemism across the landscape. Like marine reserves, in the longer term, these islands become sources of multiple species in the same way as the PDRT 20-acre base. PDRT started from a denuded landscape in 2014 and now after several years, we have succeeded in creating an island of biological endemism. Starting at ground zero we have gone from three to 92 bird species, zero to six amphibian species, and eight to 31 reptile species. Like the amphibian species where raucous cacophony was initially and sadly absent, in spite of having a basic bat detector, there was silence from the bats. The silence was broken after three years when a single vespertine (strictly only using the evening dusk window) micro-bat we called "Max" was spotted by our campfire. We grew fond of the evening forays by Max as he captured mosquitoes and more but it was short-lived and only lasted a month …and then silence again. In 2022 using more sophisticated bat detection sonogram equipment, we were delighted to identify six species, one of which is the Giant House Bat that is IUCN listed as Near Threatened. As we continue our species diversity inventory with PDRT graduate student, Alice Mposi, working on invertebrates and Loswitha working on microbial diversity, and with the foundational power of Miyawaki's wisdom, we look forward to achieving all these targets and more elsewhere in this communal corridor.

Education

All the arms of PDRT have been busy, with our education program curriculum being diversified and continually made more hands-on. Our 'Kids for Science' curriculum is being continually elevated, and we are delighted to have introduced an elephant encounter with the children. It's a PDRT mantra never to "dumb down" to children with terminology but rather empower them with new vocabulary, which they seem to relish. Consequently, significantly more scientific vocabulary is 'coming out of the mouth of babes," as the saying goes.

PDRT Conservation Education School Visits

2022 saw a COVID-free year and PDRT continued to work hand in glove with schools and surrounding communities. PDRT conservation education programs started in 2018 with three pilot schools, Sizinda Secondary, Monde and Chisuma Primary Schools, which are in Hwange District, Sizinda area. 2022 witnessed the inclusion of two additional schools in its conservation educational programs: Lesedi Primary and Secondary Schools are both from the neighbouring Monde community area. As with the previous pilot schools, the Education Officer visited both new schools and taught pupils about the aims and objectives of PDRT and of course, painted dogs. As the year unfolded, conservation lessons covered all grades in line with subjects taught in the school curriculum. These include climate change, deforestation, afforestation and invasive plant species. A total of 302 class visits were made and 1,516 pupils benefited. To create a future nature-caring generation, conservation clubs called 'The Packs' continued to run in schools and included various nature conservation activities such as pocket forest management, gully reclamation, indigenous tree seed collection and permaculture gardening programs.



Chisuma pupils learning about seedling growth at PDRT arboretum

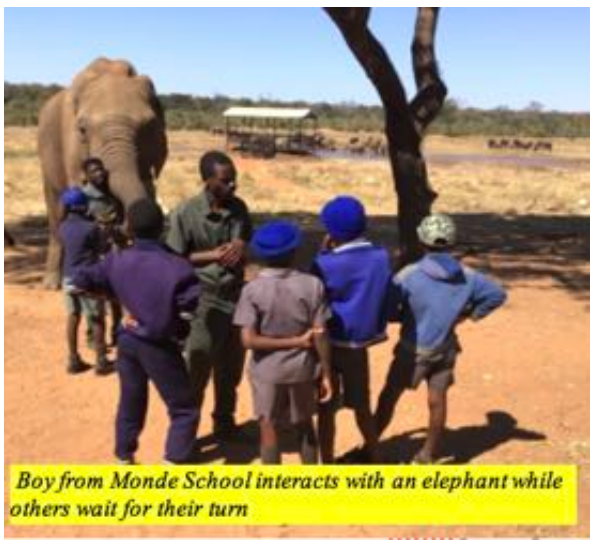
Zulu expressing a point at Monde Primary school

Establishment of Pocket Forests In Schools

2022 also witnessed the establishment of three pocket forests in three target schools, Lesedi Secondary, Monde and Chisuma Primary Schools. A total of 120 trees comprising different species of trees (*Acacia spp*., Prince of Wales, *Brachystegia boehmii* Monkey Bread, *Philiostigma thonningi* and Bird Plum, *Berchemia discolor),* were donated and planted in the established pocket forests. Pupils were taught concepts behind pocket forests and were actively involved in tree planting. Club members visited the PDRT arboretum and adopted a tree.

Engagement Of Stakeholders In Conservation Education Programs

Unlike their counterparts in Western countries where there is an opportunity to interact with '*Ambassador*' animals in zoos, most children staying in communal areas yet abutting wildlife areas have never had the opportunity to see or interact with wild animals, and if they do, it's a negative experience (e.g., crop-raiding elephants). A total of 228 students from the five PDRT target schools received their 'gift of the year' when they visited the Zimbabwe Elephant Welfare Trust (ZEWACT) project. PDRT provided transportation to the project, which is 27 kilometres from PDRT Headquarters. Activities included an immersive elephant encounter experience comprising conservation and behavioural ecology, followed by a positive elephant encounter. To add value, our elephant dung interactive program is now done at ZEWACT and integrally linked to our indigenous tree research arboretum. Another first is linking the diverse gut flora of elephants to act as starter bacterial cultures for our composting project that is exclusively for women and targets the removal of ecotoxic, invasive exotic species. These two projects provide a perfect full-cycle link for the children to participate in namely: From herbivore/elephant ecology > dung > seed dispersal > facilitated germination > soil bacteria > compost > to arboretum > afforestation > its role in climate change and all the associated research.



Boy from Monde School interacts with an elephant while others wait for their turn

PDRT Ecology Centre Visit Educational Programs

A total of 267 children from the five target schools visited PDRT to reinforce their learning about nature conservation. There are different models, which demonstrate natural resources, conservation, pocket forests, compost-making from invasive plants, water harvesting and recycling, permaculture gardening program, use of solar as a source of energy, agro-forestry and above all, the ecosystem benefits of the habitat restoration at PDRT. Some of the children who visited the centre participated in compost-making by using an invasive plant-Chinese Sickle Pod *Senna Obtusifolia,* and making compost digesters using elephant dung as a "starter." Most students in Zimbabwe perform badly in science-related subjects due to lack of exposure to not only facilities like laboratories and science equipment but also the opportunity to interact with science-driven graduates.

Evaluation Of PDRT's Conservation Education Programs

PDRT conservation programs in schools received a positive response from school administrators and teachers as well as students who see that the program can lead to an improved pass rate in science-related subjects. At the invitation of target schools, our Conservation Educator attended special occasions involving environment or conservation programs (e.g. International Forest Day) in which children competed in conservation speech, poetry or plays. On such occasions, PDRT donated prizes and the Conservation Educator was given the platform to address students on environmental issues. During school visits, PDRT Conservation Educators took the opportunity to discuss with teachers how they can integrate conservation in all subjects taught. During discussions, teachers suggested that special workshops be held to equip all teachers with the knowledge and skills on how they can integrate conservation education into the school curriculum.

Research Report

Synopsis

Painted dogs are still IUCN Red List as Endangered with a declining population trend. It is estimated that 4,500 individuals exist in ±500 packs in the whole of Africa and their persistence relies on effective conservation and management strategies in Africa (IUCN/SSC 2013). PDRT undertakes research specifically to improve the conservation of painted dogs in Zimbabwe and regionally in the Kavango Zambezi Trans-frontier Conservation Area (KAZA) where 80% of the African population currently resides. Of particular importance, we focus on understanding connectivity and dispersal corridors.

One major threat to painted dogs that affects all species are highways, and in particular public access roads through wildlife areas. This singular threat has functionally extirpated painted dogs in the 650,000-hectares of KAZA TFCA Hwange-Chobe Makgadikgadi Focal Dispersal Area & this KAZA-FDA and thus this recognised corridor has no conservation value for painted dogs. Worse still, from 2013 to date, continual focal study has highlighted that roadkill has ***functionally extirpated painted dogs in the KAZA-FDA,*** with demographic and mortality data showing that:

1/ With a minimum painted dog pack life of 42 months being sustainable, the consequence of 34 dogs being killed by WVC, this ensured an extirpative mean pack life of 15.4 months (max 27, min 3).
2/ Precipitated by adult WVC mortality since 2013 & 32 pups and yearlings starved and died.
3/ From 2014-2021, 13 study packs have collapsed under the burden of WVC. These results highlight a sink effect impacting the potential source populations in Hwange and Chobe National parks and beyond. Consequently, as dispersal immigration into the corridor is failing to recolonize the vacant territories created by pack extirpation, the source populations are compromised.

Also, data from 76 transect days on the Victoria Falls to Kazungula road recorded ***896 vertebrates (mammal, reptile birds) killed by vehicles*** and equating to a minimum mean of ***15.3 Wildlife Vehicle Collisions (WVC) per day*** thus equating to ***4-8,000 per annum on this road alone***. As we have determined countrywide ±2,000 kilometres of similar roads exist in wildlife areas, the national toll could well be in the margin of ***±120,000 vertebrates annually killed nationally***.

With WVC being commensurate with vehicle speed, and data for 2022, revealing that ***84% of all traffic*** was over the speed limit, with ***37% of traffic ≥100 km/h***, 7% of traffic ≥120 km/h and the ***maximum recorded speed was 176 km/h****, it is clear that* speed reductions/curtailments/curfews are essential.

Some of the ongoing activities to achieve mitigation of wildlife mortality include:

1/Data collection via camera trapping to determine wildlife activity relative to solar events to be overlayed with traffic data.
2/ Collecting traffic data to get temporal road activity and speed so as to understand which vehicle classes offend the most.
3/ Using data from 1 & 2, refining a temporal WVC risk model that will inform mitigation measures.
4/ Capacitating wildlife/law enforcement agencies with tools, training and standard operating procedures to monitor traffic and roadkill.
5/ Development of outreach material to highlight the consequences of killing wildlife, including billboards, flyers and posters
6/ Social science data to assist in understanding what measures other than enforcement could promulgate change.
7/ Development of a Citizen Science app to facilitate and encourage motorists in KAZA to report wildlife dead or alive.
8/ Lobby for legislative change regarding speed limits and fines in wildlife areas.

To conclude with perhaps a somber vein, having looked critically at the data for not just our beloved painted dogs but across all species in the 6,500 km2 wider landscape, I shudder to think of the impact across KAZA (which is the size of Texas) and holds 80% of the African painted dog population. With this deeper understanding, I have taken on board as a priority project to fully mitigate WVCs. Sadly as I research motorist behaviour, I have come to the onerous conclusion that WVC is a conservation challenge that makes my 12 years of work (1988 -2000) that culminated in stopping the shooting of painted dogs by ranchers, which now looks like a walk in the park!

Whilst I am reminded of the poignant words of Aldo Leopold referring to the "penalty of an ecological education," I am also happy that the same tenacity that stopped 65% of all painted dog mortalities by shooting in the early 1990's not only still exists, but to make change with WVCs, I am wiser and also have the benefit of a team.

Aldo Leopold 1949, Sands County Almanac, 1949, Penalty of an ecological education.

"One of the penalties of an ecological education is that one lives alone in a world of wounds. Much of the damage inflicted on land is quite invisible to laymen. An ecologist must either harden his shell and make believe that the consequences of science are none of his business, or he must be the doctor who sees the marks of death in a community that believes itself well and does not want to be told otherwise."

With that said …. Special thanks to the PDRT team for their commitment, to the community they serve, the painted dogs, and last but definitely not least to everyone reading this and supporting the work we do.

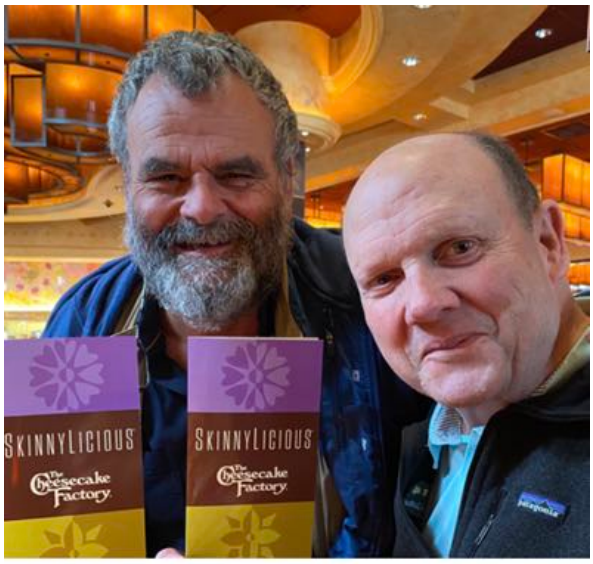
A special tribute to Mark Crowe, a special friend and conservationist R.I.P:

Conservation lost a supporter and advocate in 2022, the PDRT team also lost a special friend who will be remembered in perpetuity by us. Our lives were touched with his big smile, grin, generosity with knowledge, time, resources and friendship.

When in the field, our biscuit box is now missing its most welcome customer whom with outstretched cupped hands would share his famous line, "Biscuits for the poor?", which still to this day is heard echoing by the PDRT field team.

Whilst conservation will be much poorer without Mark, it will continue to be much richer and in a better place because of his legacy to conservation. We may not be able to see Mark, but he will ALWAYS be REMEMBERED and a part of us.

THANK YOU FOR BEING OUR FOREVER FRIEND.



Targets and Dreams for 2023-24

- **Plant at least 100,000 trees in herbivore-proof enclosures and have >50% survive.**
- **Reduce vehicle speed in wildlife areas from a mean of 100 km/h down to < 80 kmph.**
- **Compete Construction of a Student Dining/Recreation/lecture centre where training workshops can be facilitated.**

Importantly PDRT continues to be grateful to the individuals and organizations who choose to advance our infrastructure, education and research programmes through their generous contributions as well as the local organisations that help us logistically, the companies that deliver good service and try to assist us ensure that our funds raised go as far as they can go. We know times are tough for everyone, but if you can consider supporting know it will go a long way .

Please support at <www.wildnet.org/pdrt>

Special appreciation:
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