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Welcome to Dog Tails 2024 Annual Report

Message from the Founder/Executive Director



I must admit that 2024 did not start out well. Yet, despite everything that is going on in the world, the end of 2024 left us with many reasons to be optimistic. Allow me to bring you on a bit of a journey. The year began with almost non-existent rainfall and with drought being officially declared in early April. The grass and trees were struggling and many grasses died before they could drop seeds. However, whilst many trees did not flower at all, delightfully there was still enough canopy cover to hide all the buildings at Painted Dog Research from the beady eyes of Google Earth.

We are thrilled to crow about (no pun intended) our bird species count. It has risen from 3 species to 128 species in just over a decade. Also exciting for us is that our annual bat species count has risen from zero during the first six years of the count, to a current count of 8 species; and we have identified three colonies of free-tail bats. We are also extremely proud that our 25 acre restoration site is showing incredible ecosystem resilience. We continue to strive to maintain a healthy biodiversity at the Painted Dog Research site, whilst always keeping the welfare of the local community at heart.

Unfortunately, the picture in the communal area is dire. The combination of climate change, poverty, and poorly understood farming practices over decades has resulted in severe habitat degradation. Even worse, the entire landscape has been colonized by *Senna obtusifolia*, an ecotoxic and allelopathic non-native plant. The plant was accidentally introduced to North Africa via horse feed from South America 100 years ago, and its negative effects are still being felt. However, whilst its presence has caused field abandonment in over 85% of the corridor landscape, we are committed to helping the community. Currently working with communities is a key member of our team, Loswitha Murugani, who is completing her Master's degree with the topic "Restoring habitat quality in degraded landscapes". Loswitha is as dedicated to her community as she is passionate about restoring habitat in the rural Sizinda environment. We certainly have a reason for optimism.

The next generation of conservation minded Zimbabweans is truly important to us. To nurture the youth, we are delighted to share that with support from the Jane Goodall Institute Germany, we ran 18 bush camps during 2024. These camps provided conservation education to hundreds of school aged boys and girls. PDRT has also made headway with construction of the bespoke Mashambo Children's Bush Camp. 'Mashambo' translates to 'painted dog' in local Nambya vernacular. Providing immersive ecological experiences gives us great pride and provides us with even more hope for the future.

Finally, as we are "all about painted dogs", 2024 delivered reasons for celebration. One hallmark accomplishment is that 2024 saw the lowest roadkill of painted dogs for the past 12 years. The mortality consisted of just two dogs which resulted in the loss of 4 pups in one pack. This is a far cry from the highest mortality rate recorded which was five adults and 11 pups. That upheaval led to 13 years of difficulty for the packs. With the exception of the Musketeer pack, in which we intervened, every year saw so few pups survive that packs collapsed, and no yearlings grew old enough to disperse and form new packs. We are working hard to assure that situation does not repeat itself. PDRT has completed seven years of intensive research and outreach with motorists and agencies to combat the issue.



Whilst we cannot be sure that the low mortality of painted dogs in 2024 is a result of our efforts, we believe it has played a significant role. Now, for the first time in 13 years, we have seen success in packs that have territories which encompass high-speed roads. We have witnessed two litters of pups raised so they can be helpers for 2025 litters. Even more exciting, is what became of "3M", a female that dispersed from the Musketeer pack in 2022. She and two males formed the Timots pack and finally successfully bred a litter. Normally, as they are short-handed (or short-pawed ©), packs of three are lucky to raise even two pups. In 2023, 3M's pack of three was not able to raise any pups, as is usually the case with these small packs. There is of course always an exception to the rule, and we watched it play out with 3M in 2024! In my 38 years of following the fate of packs, only twice have I seen three dogs successfully raise seven puppies to become yearlings. 3M and her team have joined the elite of painted dog packs, and have broken the mold. We are ecstatic!!

Finally and excitingly, in what is a game changer for our work, Joel Vanderbush, established a vital component to sustainability of all the PDR conservation work by founding Painted Dog Research USA as a 501(c)3 nonprofit. The work of the US based team has been vital in our efforts to expand our research and conservation education efforts.

Dr. Greg Rasmussen
Founder & Executive Director

Message from the Chair of Painted Dog Research USA



2024 was a pivotal year for the support of Painted Dog Research (PDR) in Zimbabwe. Throughout the many years of Dr. Greg's annual awareness and fundraising tour in the United States, he has built a multitude of relationships with zoologists, behaviorists, educators, and many other compassionate people. During the first quarter of the year, a team of diverse professionals was gathered to increase the level of organization and provide direct support to help PDR fulfill its mission. Most of the team has seen first-hand the extent of the work Dr. Greg and his team are doing by traveling to Zimbabwe and contributing to the productivity of PDR. On March 4, Painted Dog Research USA, Inc. was formed as a non-profit organization.

Meet the PDR Board Members:

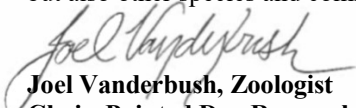
- Joel Vanderbush, Chair
- Rachel Hale, Vice Chair
- Nicole DeGennaro, Treasurer
- Debbie Clemens, Secretary
- Kristin Wagner, Tour coordinator
- Katie Kimble, Merchandise coordinator
- Alicia Bennett, Public relations coordinator

The team planned over 30 presentations across the U.S. for Dr. Greg from March through May for the PDR awareness and fundraising tour of 2024. In the second week of May, Dr. Greg made his way to Salt Lake City, Utah, along with Joel Vanderbush, Chair of PDR USA. Both were slated to present before over 300 conservationists from around the world at the Zoos and Aquariums Committing to Conservation (ZACC) conference. This is the conference where Greg and Joel met in January 2018, introduced by Debbie Clemens. It is no coincidence that Joel and Debbie helped spearhead the formation of PDR USA. At ZACC 2024, Greg and Joel revealed to the conservation world this new partnership. Greg's presentation, "Getting to grips with wildlife vehicle collisions in a conservation landscape" as well as Joel's "Impacting local and global conservation on a small budget," were well received. More importantly, rekindling previous conservation relationships and developing new ones that result in collaborative support were the greatest takeaway from the ZACC conference.

Since then, PDR USA has developed and implemented a distribution plan for merchandise, including snare wire art, felted painted dogs, as well as patches and stickers featuring the new PDR logo. The team even helped Dr. Greg produce his first children's book, "A Dog Called Circus", along with artist Jeff Wells. All merchandise is available for sale at www.painteddogresearch.org.

The team has played a pivotal role in grant writing and fundraising efforts, culminating in the purchase of an industrial-sized air compressor. This essential piece of equipment is as large as a vehicle and is being used for the removal of solid rock to construct underground water storage and buildings for the new Mashambo Children's Bush Camp, as well as the continued construction of the PDR Conservation Ecology Centre.

This true partnership between Painted Dog Research in both Zimbabwe and the U.S. has resulted in expanded opportunities for conservation and education. Together, we are moving the needle on the conservation meter forward, protecting not only painted dogs but also other species and communities of people that share the landscape with them.



**Joel Vanderbush, Zoologist
Chair, Painted Dog Research USA**

2024 Annual Awareness & Fundraising Trip

Laden with two boxes of wire art, mid-March saw Dr. Greg depart from Victoria Falls headed on Ethiopian Airlines bound for Chicago. After a few days getting over the jetlag, Dr. Greg visited Wolf Park in Battleground, Indiana, and then headed for Nashville, Tennessee, to meet up with Boone Thomson, who runs Boone Safaris and met Dr. Greg and Bongo when in Zimbabwe. Here in Tennessee, of course, meet Dolly Parton (he wishes). Dr. Greg gave presentations to two Rotary chapters and felt honored by the level of appreciation. Following pitstops to see the Huntsville Space Center and Zoo Knoxville, it was on to Tampa for a successful trivia night in Tampa set up by PDR friends Ashley and Rachel Hale and Amber Wisler. Following up from the very successful 10-day PDR visit by 24 students from Eckerd College, St. Petersburg, prior to doing a presentation at the college and living in landlocked Zimbabwe, and missing deep-sea boats, Greg organized a deep-sea fishing trip. Sadly for him, high waves cancelled the trip, and fishing off the pier didn't quite produce supper in fact nothing! More productive was meeting one-on-one and doing a presentation with all the students from the college that came to stay at PDR student accommodation and going into the field camera trapping with the PDR student team.



Then it was back to visiting zoo facilities with dogs. Fort Worth, OKC, Tulsa, Sedgewick and Rolling Hills Zoo and sharing ideas with painted dog keepers and curatorial staff. At Sedgwick County Zoo, Dr. Greg was particularly delighted to brainstorm with the graphic design team; they have been helpful with the development of outreach and billboard material for the Wildlife Vehicle Collision (WVC) campaign.

The next leg took Dr. Greg into Phoenix and then the bus to The Living Desert Zoo (TLD), where there is an intrepid conservation department led by Dr. James Danoff-Burg. Following on from TLD was a wonderful treat for Dr. Greg as he visited the Huntington Library and Botanical Gardens, where thoughtful and high-level research is being done on plant conservation and restoration. Dr. Greg was honored to be invited as guest speaker to the research department with a habitat restoration presentation on behalf of

Loswitha and PDR. With such a research focused audience, it was for Dr Greg such a pleasure to share in absentia not only her research results guiding habitat restoration, but her passionate role as someone raised in a rural environment to lead conservation initiatives that particularly support women whom can be deemed the most marginalised.

Moving on to Los Angeles Zoo, who have not only been core supporters of the WVC mitigation initiative, but they also supported Rosalio Rubio from their education department to come and brainstorm with us in Zimbabwe. With Rosalio having had an amazing time in Zimbabwe, he was determined to get revenge on Dr Greg and share his world so he setup an amazing behind-the-scenes surprise namely to join a researcher in action as well as see the incredibly well interpreted exhibits at La Brea Tar pits.

Onto San Francisco where Linda Tabor-Beck had her annual fundraiser set up, along with a donation match grant from PG&E. Following a pitstop in Sacramento Dr Greg took the Amtrak Starlight express up the West Coast through to Seattle Tacoma to see friends and do a private fundraiser then south again to Colorado State University to do two back to back presentations to the conservation biology students.



Following on from Pueblo, Dr Greg linked up with Joel Vanderbush from Niabi Zoo and aside from a fundraising dinner presentation at the zoo, Dr Greg presented to the Biology class at Augustana University. It was now May and normally way too late for Dr Greg to still be in the USA, but this year was different as there was an important conference. Hogle zoo in Utah was hosting the Zoos and Aquaria Committed to Conservation (ZACC). Here brought together were committed zoo staff, and field based conservationists to develop and increase partnerships. Dr Gregs presentation was unique as it always is for conferences, and he fleshed out a new topic "Integrating Sustainability into Field conservation in an ARID environment".

Here Dr Greg again showcased the valuable work of Loswitha and how Painted Dog research integrated development that is synchronised with biological conservation science to Harmonise & Enhance Ecosystem health & Human well-being. He also brought to the floor how all the building construction design integrated maximized community benefit whilst at the same time minimized carbon footprint. He did however confess that he was plagiarizing most of his ideas from those that existed in nature, as after all they had millennia of fine tuning.

Again with research being his master Dr. Greg shared with the audience his findings pertinent to the tragic journey of *Senna obtusifolia* that arrived in the shores of Africa over 100 years ago from South America. This non-native has devastated the landscapes in its wake as it poisons the soil thus impacting not only the valuable soil microbes but also releases a germination and



growth inhibitor that effects all other plant species. Unlike many plants species with the colorful flowers, that generally are transported because they were "pretty", this plant was an accidental introduction into Morocco North Africa as it came with hay fodder for horses in the great war. Like all non-native species, *Senna* has no natural enemies and not even plant rusts attack it. By following the arid and semiarid areas it rapidly spread across the African landscape from north to south and by also poisoning some livestock has impacted all rural subsistence and native habitats along the NW Zambezi corridor. Like all species that become invasive, seeing the problem is one thing dealing with it is another. Fortunately there is a solution devised and tested by PDR habitat restoration team. By only removing the plant as soon as it flowers and not before, and by providing perfect conditions for microbes to diversify, conversion of the eco-toxic component into beneficial compost can be achieved.

One of the other important themes at ZACC was to pay respects to one of ZACC's founding members Anne Warner who came to PDR in 2017 to facilitate training workshops to motivate teachers to integrate conservation into their lesson planning. In recognition of our admiration of "Anne" we named a painted dog after her. Anne from the musketeer pack ultimately became alpha female yet nearly died of starvation in 2019 just after whelping five pups. Why was she starving? Three of her pack were hit by a truck leaving too few members in the pack to hunt successfully. Following the actioning of supplemental feeding as a hitherto untried conservation exercise named "Operation Anne" was successfully executed. So successful that not only all 5 pups survived into adulthood, and despite Anne passing on at the age of 11, the pack still thrives so does our memory of Anne Warner <https://youtu.be/7xE3PWwCzng>



After a such a long trip finally on 20th May 2024 Dr Greg finally departed and came home to Victoria Falls exhausted on 21st.

KEY RESEARCH PROJECTS AND OUTCOMES

Wildlife Vehicle Collision Report for 2024

“Mitigation of Wildlife Vehicle Collisions (WVC) on High-Speed roads running through Wildlife areas”

Synopsis:

This initiative focuses on our key 6500 km² wildlife corridor focal area in northwest Zimbabwe. This area, which includes the Matetsi/Victoria Falls painted dog population, is pivotal for connectivity of the national parks of Hwange, Chobe & Makgadikgadi. Since 2023, core funding from the LA Zoo conservation fund has been the sole sponsor of this initiative and funding has been matched by PDR. It is important to note that this area forms part of a wider five country conservation area called the Kavango Zambezi Trans-frontier Conservation Area (KAZA TFCA). Covering about 520,000km² across Angola, Botswana, Namibia, Zambia and Zimbabwe, the KAZA TFCA hosts not only large populations of wildlife, but also the largest interconnected painted dog population in Africa. Sadly, it is also interconnected by a lethal road network.

Conservation Quartet:

Components of the WVC initiative are driven by solutions to conservation problems underpinned and focused by scientific research. Consequently, our approach is to be empirical, interdisciplinary, and collaborative. We seek to include four elements as the Conservation Quartet:

1. Research to understand and address the problem
2. Education to explain the problem
3. Community involvement to ensure positive participation
4. Implementation of long-term solutions and tracking progress

1. Research to understand and address the problem:

Prior to 2023, we collected data on roadkill for all species, which

highlighted that 4,000–8,000 vertebrates were killed every year. We documented the devastating annual painted dog mortality figures as follows: WVC = 4.4 (max 6); Snare = 1.1; Starvation = 4.3(max 12); Unknown = 2.9 (max 7). Of concern were the starvation and unknown data for pups, as data show that the death of one adult correlates with the subsequent death of up to 2 pups, which are dependent on the adults for food and protection.

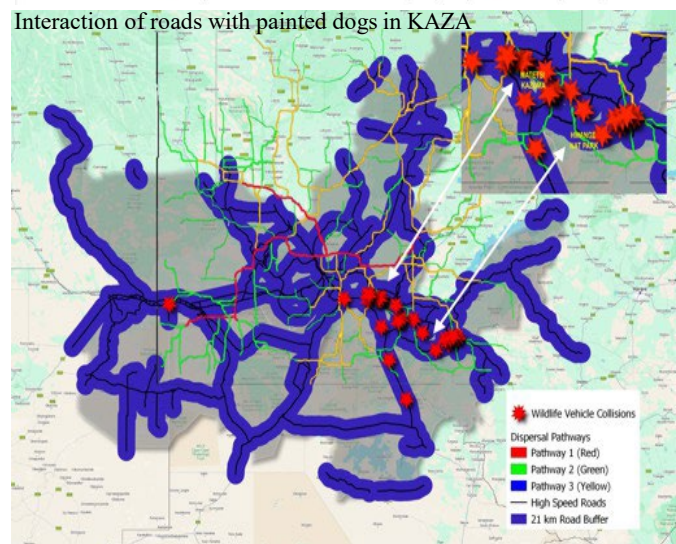
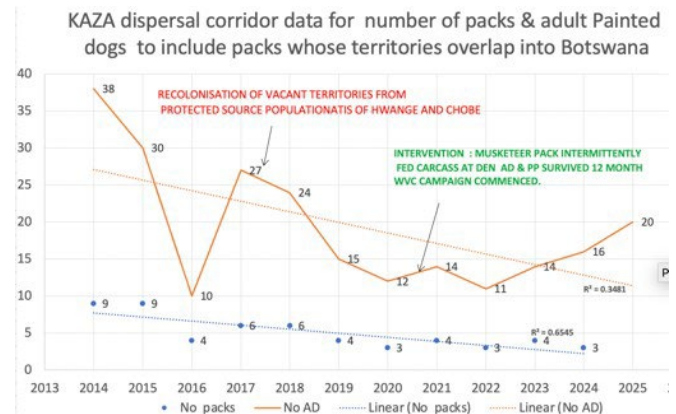
In what can only be seen as a more than welcome breathing space for the dogs, 2024 data confirmed WVC mortality of only 2 adult dogs, with snares killing one. Whilst the knock-on effect in the two packs that produced pups was the deaths of at least 6 pups due to reduced helpers, it wasn't all of them. Ironically, this can be deemed a success, as it represents the lowest adult mortality due to roadkill and snares for 13 years. It also led to a positive knock-on effect, whereby there was successful breeding in two packs, resulting in 21 pups. Furthermore, with low adult mortality, 16 pups survived to the end of the year. It is important to note that this is by far the highest pup survival in 13 years. As of 31/12/24, there were 3 packs in the Victoria Falls/Matetsi area, comprising a total of 20 adult individuals, which, despite increased traffic, finally represents a rising population. While we remain vigilant, we are hopeful that this trend will continue.

Modelling the impact of road mortality & identifying population sinks: Ten years of demographic data, coupled with satellite collar data showing the frequency of road crossing events, has enabled within KAZA to highlight vulnerability buffers for “Roads at Risk” where vehicles currently travel at high speed. Overlaying this map with identified dispersal corridors for painted dogs concurs with the 10 years of PDR data highlighting that, due to Wildlife Vehicle Collisions, the Hwange-Chobe-Makgadikgadi wildlife dispersal corridor is ineffective for painted dogs. Equally, it is a fact that traffic behaviours on the roads in Zimbabwe and beyond undermine the integrity of the sustainability of the KAZA population. These data are currently being shared with KAZA partners.

2. Education to explain the problem:

Since 2023, our education outreach has focused on using WhatsApp to target stakeholders. Our consistent messaging highlighting that the presence of the dogs is directly linked to the low rate of WVC mortality is finally hitting home. For people who are now seeing pups, the proof of the pudding is in the eating.

Outreach includes four billboards (11'x 8') and 2000 bumper and vehicle licensing stickers distributed. The billboards travelled through many bureaucratic loops and hoops, but they have now been approved and welcomed by national parks. Furthermore, they are printed, the frame is constructed, and they are ready to be erected in June 2025. Research identified that signs with ‘eyes’ were more impactful than those without, and we were delighted to include eyes on our signs. While not prompted, this specific feature received positive feedback from those asked to pre-review the billboards.



3. Community involvement to ensure positive participation:

While all stakeholders are part of the puzzle, and awareness is broadcasted in everybody's direction, we undertook a stakeholder analysis to identify those most able to make a difference. This analysis, not surprisingly, highlighted the following: National Parks; Police; Forestry Commission; Ministry of Roads; Vehicle Inspection Department; Zimbabwe National Road Authority; and the Department of Customs and Immigration. All these government stakeholders are fiscally compromised and need support for mitigating traffic and illegal vehicle activity. To show PDR cares, and to boost morale, we have made donations of vital equipment (e.g., roadblock equipment, tents, portable toilets, traffic cones, solar lighting, and roadside reflectors).

Our head of education, Zulu, also had the wonderful idea of integrating the children of key stakeholders into our outreach. We ensure that these children are enabled to attend our three day live-in conservation bush camp free of charge. We also ensure that the children at these camps are accompanied by one parent and a representative of the organization. To date, children from National Parks, Police, & Forestry Commission have attended.



4. Implementation of long-term solutions and tracking progress:

While all these activities are ongoing and will be for the foreseeable future, we are continually working towards making changes in the law. Happily, we have much data to make our case as we are striving for special speed limits to be gazetted in wildlife areas. Where public access roads run through National Parks we are also seeking to create 'time curfew' statutes, as most of the roadkill happens during the night.

Challenges for 2025:

Parts of this project revolve around collecting data on daily wildlife activity relative to traffic usage. These data are collected using camera traps. The region, however, has a significant elephant overpopulation problem, which is unnaturally high due to pumped water supplies for tourism. This has resulted in a very stressed, overpopulated elephant population that is dying from starvation. Aside from increasing elephant-vehicle collisions, another knock-on effect of this stress are elephants that, apart from being very dangerous and destructive in the field, have unleashed significant collateral damage to our camera traps which usually are attached to the trees. This means that, aside from direct camera trap losses, to complete the data collection for this project, we now need to install elephant-proof camera trap casings. After many trials and a feat of engineering, we have developed a design that works and is the way forward.

Positives:

The Department of National Parks recently contacted us for updates and advice as they are currently engaging with Ministry of Roads to seek synergistic solutions. We are hopeful this collaboration will lead to speed limit changes in wildlife areas.

Research on Impacts of Den Disturbance

The culmination of a three-year study on competing predator trail use, and by compiling new data with historic data, is making it apparent that visual observations of painted dog dens (whether on foot or from vehicles) are a serious threat to pups, adults, and thus, populations. These data have unequivocally demonstrated the following:

1. Documented mortality caused by predators at dens can be attributed to the humans visiting them.

In our study titled "Tracked by humans, followed by predators", the detrimental consequence of tourism on painted dog den detection by sympatric carnivores highlighted preferred usage of game trails that have been "opened up" by simulating foot traffic in the thick bush habitat in which painted dogs prefer to den. Lions, hyaenas, honey badgers and leopards - which all are species known to kill painted dogs and in particular pups - preferentially select game trails opened up by frequent foot traffic or vehicular access.

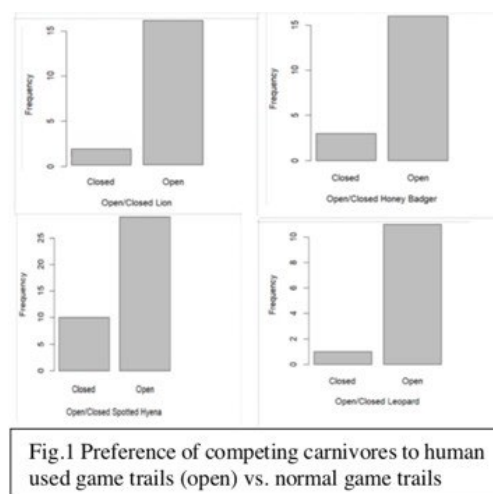


Fig.1 Preference of competing carnivores to human used game trails (open) vs. normal game trails

- Painted Dogs move dens more frequently when their dens are either detected by competing predators or observed by humans. Up to 33% of the pups can be lost in each of these moves.
- Pups born at dens that are disturbed have significantly shorter legs as adults.** n=163 dogs (76 disturbed and 87 non-disturbed).
- Belly scores in adults born at disturbed dens are 12.4% less than those from undisturbed dens.** This is attributed to the shorter legs reducing overall hunting success.

5. Den moves

a) *Without Disturbance*: Data show a denning mean of ± 12 weeks, & 2 moves with the earliest first move being 4-5 weeks & the latest first move being 9 weeks. Distances moved are small ± 0.7 km (min 0.25, Max 4.5 km)

b) *With Disturbance*: Data show a denning mean of ± 14 weeks, & up to six moves.

Earliest first move 2-3 weeks & the latest being 7 weeks. Distances moved are large ± 2.9 km (min 0.75 -15.5 km)

6. Daily activity patterns are compromised.

When dens are visited/disturbed a variety of behaviours are compromised. Human visitation to dens occurs around 6am and midday between 4 and 7pm. At undisturbed dens, this period coincides with the maximum of social and physical activity which is essential in a social predator that constantly needs to reinforce social bonds. Such activity during this period includes babysitting, play, guarding, reinforcing bonds, and feeding. Worryingly, at disturbed dens during this same time period there is interactivity and the period is hallmarked by resting and few of these essential behaviours. Very importantly these time periods coincide with pup feeding and at undisturbed dens four feeding peaks are identified from the data. At disturbed dens there are only two feeding peaks and at undisturbed dens there are four. It is believed that this is causal to the significantly different growth rates between pups at disturbed dens vs pups at undisturbed dens.

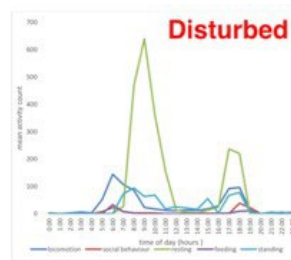


Fig 4.2: Activity pattern and activity levels of *L. pictus* at disturbed dens in ManaPools.

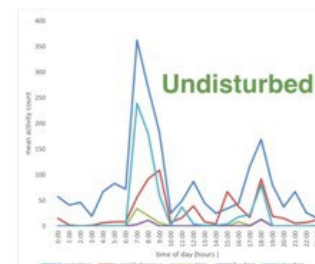


Fig 4.3: Activity pattern and activity levels of adult *L. pictus* at undisturbed dens in ManaPools.

- 1/ (Green) Resting in disturbed packs coincides with Times humans visit.
- 2/ (Red) social behaviour interactions minimal at disturbed dens.
- 3/ (Light & dark blue) Visible standing/moving interactions minimal at disturbed dens.

7. 55% of all den visits are happening when the pups are only 2 to 4 weeks old and most vulnerable.

EDUCATION

Mashambo Bush Camp

With November 2023 seeing the first bush camp running with a trained core personnel it was full steam ahead. No surprises, construction of the bespoke bush camp for up to 40 people and running camps was a priority! Construction wise, the challenge was to nestle all the essential camp facilities into the hillside. The goal, no surprises, was to inspire children to understand nature through hands-on interactive educational activities, with the intention of producing future biologists or simply conservation minded youth that will change the minds of others. After all as the saying goes we conserve, or at least do not harm what we love and understand, but neglect or harm what we don't.

Starting in January, Zulu identified that we had a least a five-year backlog of grade 6 students that should have come. This priority group from one school alone amounted to 350 students, however by the end of the year, become be proud to say that 80% of those children were engaged with the Mashambo Bush camp programme. Armed with their Student Activity Booklet that provides guidance on activities to include nature scavenger hunts, tree adaptations, understanding skulls and teeth, elephant dung, and discovering the life of a Painted Dog, the children are all guided through their three-day programme. As for the activity booklet that is taken home, we are aware that it becomes a precious keepsake of a wonderful experience!

When the three-day bush camps are not running, we also have a Conservation Club weekend program developed to support the Bush Camp experience. Happily, this program has taken up the slack on the remaining 20% of students from Sizinda school we wish to wave the magic



Of course, it is not only the children that are learning but the guides are too, with new modules being added. Two of these are setting camera traps and learning the role of camera traps in wildlife research and conservation, with the other being to explore the life and adaptations of painted dogs which are now embedded into the educational iPads. No surprises the children think these are 'cool' as do the parents and teachers that are invited to the Bush Camp. The guiding team keeps gaining experience in different teaching approaches, making lesson delivery easier and quicker and they have commented that the general performance of the children has improved in every bush camp. Part of these improvements is as a result of enhanced guiding techniques, the other reason is that when the children are getting back they are communicating with others who are later forearmed with answers. Indeed, a great step in the right direction and certainly better than sharing idle gossip.

CONSTRUCTION PROJECTS AND PROGRESS

Bush camp



2024 was full steam ahead so all hands on deck as there was a lot to achieve. First of all was the underground drainage and soak-aways for the showers, kitchen and basic landscaping. As always a lot of digging with the community team who we nickname the Aardvark's led by our most appropriately named staff member "Rocky" who relishes digging holes in rock with a big breaker. As the bush camp is situated bottom of the hill, and a lot of work went into merging the buildings into the hillside. The first of these was the two-story Painted Dog Den. Here the ground

floor was designed to have a "cave like" serves to function not only for meals, but also a movie theatre. The second deck is the opposite as it is an open-air viewing and activity platform some 20' above ground, so children can get an appreciation for the beauty of nature as the view is stunning! Here the surrounding woodland of Victoria Falls National Park and the **immense spray of Victoria Falls can be seen** in the background. Because of this spray, the local name for the Falls is Mosi-oa-Tunya (the smoke that thunders).



With 20 two-person 'rondavels' finished the final touch was to make the thatch baboon proof by covering the roof with chicken wire. Such are the challenges in a wildlife area! With the plumbing done the kitchen was completed and though yet to be fitted out the structure was done and the landscaping could start. Here being at the bottom of a hills there was severe erosion which claimed the one area needed to be restored for nature. This area will be declared to as natures special preserve. Here the messaging is that whilst there should be space for people, accordingly there must also be a space for nature. So in tandem, it was



robbing Peter to pay Paul as we excavated an amphitheater for theatre and campfire activities, with the rock and earth spoil being graded to create terracing and restore the eroded site. During the excavation, even the team of 15 men had to give up and we had to concede that we needed to bring in an excavator. Fortunately, the excavator succeeded removing the worst, however then even the excavator gave up and had a breakdown. Little did we realize this "bad luck" transpired to be a delight to the children that came to



the bush camp program. Apart from having a wonderful climbing frame that was much better than broken down cars and any other props on the school yards, they set themselves a challenge to hold the record for how many children could fit in the bucket. Incredibly at one bush camp all 16 children fitted and there were many sad faces when the best toy the world was fixed and then drove away.

Basically, by the end of the year, with the exception of the most important piece of the puzzle, nearly all the construction was done. That pivotal piece was the

composting toilet that necessitates not only making an enormous hole in bedrock that is not only 20 foot deep but requires removal of 120 cubic yards of rock! Happily, in every cloud there is a silver lining as in what will be a rock mountain, will be converted into building quarry stone by the local women who have already got their own market and collectively stand to gain \$5000. The environment also gains from reduced CO2 emissions because the rock is local and does not require trucks whose emissions are up to 60% greater than the first world to drive 200 miles belching smoke.

Student Centre

Bit by bit we are getting there as construction of a three floor Student Dining/Recreation/lecture centre where all our training and community workshops can be facilitated. Also while the bespoke Bush camp is being built, it also serves as the tea-break, dining and learning activity area and with two sets of stairs to climb to viewpoints The kids love it. Basically children do not have staircases in their environment, so its novel and fun.



Habitat Restoration:



With PDR home base restoration area well under control and continuing to metaphorically blossom, Loswitha was busy focusing on her unwavering passion to restore habitat and support woman whilst doing so. Consequently 2024 saw her continuing to climb the intellectual ladder by doing fieldwork for her chosen Master's thesis topic. No surprises it was in line with her own personal visions and titled "Supporting the implementation of soil regeneration projects in communal areas to improve local livelihood, enhance local biodiversity and support climate change adaptations."

Loswitha's project took several approaches to investigate the most effective methods of soil restoration for climate change adaptation. Here she investigated soil microbial diversity in our pocket forests, uncultivated and cultivated subsistence communal land she was studying. Here she sought to evaluate the potential of sorghum and biofuel cultivation in the face of increasing aridity. She studied its growth and productivity through a global literature review, then at a local level with a view to



mapping the way forward, she engaged in interactive 'futures' workshops in Hwange wards (Loswitha centre white top). Here, focus groups drove community design proposed by the interactive workshops that incorporated men women youth leaders enabling them towards greater participatory inclusivity. Overall the goal was to foster sustainable technical governance systems required for integrated soil health management. Completing her thesis topic suite at all levels, finally at a practical level she conducted field trials of biochar treatments and highlighted that the soil carbon included in biochar, is essential to make a significant difference in growth trials.

PDR looks forward to Loswitha's return to Sizinda home base in 2025!

Targets and Dreams for 2025

- Complete Construction of Children's Bushcamp
- Plant at least 20,000 trees in herbivore-proof enclosures and have >50% survive.
- Reduce vehicle speed in wildlife areas from a mean of 100 km/h down to < 85 kmph.
- Secure funding for construction of the Conservation Ecology Centre state-of-the-art laboratory & conference centre.

Check out the Voices from the PDRT Field team:

Sanelisiwe <<https://www.youtube.com/watch?v=OGQeI4ztuT4>>

Jonathan <<https://www.youtube.com/watch?v=9TmG8tjWzoc>>

Special thanks to the entire Painted Dog Research 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.

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To support our ongoing conservation efforts, donate at
<https://www.painteddogresearch.org/donate>

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**From the painted dogs, the community and habitat with all its microbes
that can be deemed unsung heroes of conservation.**

THANK YOU EVERYONE!

**We appreciate your continued support! Donate at
<https://www.painteddogresearch.org/donate>**