African Wildlife Conservation Fund

2021 Annual Report

By: Ms Jessica Watermeyer and Dr Rosemary Groom

African Wildlife Conservation Fund Annual Report
January 2021 – December 2021

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Summary

We have been working on site in the Zimbabwean Lowveld for over a decade, and our track record and long-term results speak for themselves. We run highly effective and multidisciplinary programmes, and continue to contribute significantly to the future of conservation in Zimbabwe.

Despite the challenges, 2021 has been another successful year for the African Wildlife Conservation Fund (AWCF), particularly with regards to our involvement in, and output of, high-level research and studies. We have also used the year to strategically review our work and reshape our approach to our programs and carnivore conservation research.

We are incredibly proud to report on our successes and outputs across 2021. AWCF, like the rest of the world, is still feeling the impacts of Covid-19. However, despite logistical setbacks and funding challenges, we continue to find a way to help Zimbabwe's people and contribute to the conservation of the country's wildlife. Resident wild dog packs under our safeguard continue to do well, and we have made significant strides with regards to research output, capacity building, and providing multiple benefits to local communities.

We are inspired and motivated for the year ahead!

African wild dogs in Savé Valley Conservancy.

African wild dog conservation, population monitoring and research

We focus on two key conservation areas in the Zimbabwean part of the Greater Limpopo Transfrontier Conservation Area (GLTFCA); Savé Valley Conservancy (SVC/the conservancy) and Gonarezhou National Park (GNP/the park).

Savé Valley Conservancy

African wild dogs in SVC are at one of their lowest counts in 10 years. The most recent annual count (taken as standard in April 2021) indicates **69 adult wild dogs in the conservancy**, compared to a stable population of 90-100 wild dogs for the past 5 years at least.

For the last two years we have mentioned the possibility of an upcoming 'dip' in the resident population. Snaring has been a significant threat to the SVC wild dogs (see Table 1 below), and over the last two years we have seen the pack structure of our resident wild dog packs change. Our data shows that over a five-year average, 8% of the resident wild dog population is being affected by snare wires annually. It is important to note that in many cases it is alpha /dominant dogs which have been caught which is significantly detrimental to the longevity of packs. Less experienced and younger alpha females are likely to give birth to smaller litter sizes, and have lower pup survival to one year of age. Smaller packs will also find it harder to compete with resident lions and hyena. The latter may affect recruitment and the stability of packs and indeed this is what we have witnessed over the last couple of years.

Further, our recorded mortality data only accounts for 100% confirmed incidents or when carcasses are found. Often, we may find a wild dog carrying a wire within a pack and at the same time other members are not accounted for and not seen again. The assumption in most cases is that they have also likely been caught in the same snare line, but this is not always confirmed.

Table 1: Recorded wild dog deaths from snare wires and snare removals in SVC for the past 5 years.

Year	Deaths (# of wild dogs)	Snare removals (# of wild dogs)
2017	4	3
2018	5	4
2019	3	10
2020*	0	2
2021	2	2

** Monitoring efforts were not as comprehensive as usual due to Covid-19 disruptions*

However, at this point we are not too concerned, as the trend is likely to be reversed as the current alphas hopefully gain experience (so long as the snaring is controlled), but we continue to monitor things very closely. **Wild dogs in SVC still occur at a reasonable and average density for the species at 2.8 wild dogs / 100km^2**.

In our 2021 denning season, nine resident packs denned and gave birth to puppies (compared to 10 denning packs in 2020). A total of 71 puppies were born (compared to 69 in 2020). We have recorded 51% pup survival to date, with 36 of the 71 puppies born still alive. See Figure 1 below for the population trend for wild dogs in SVC.

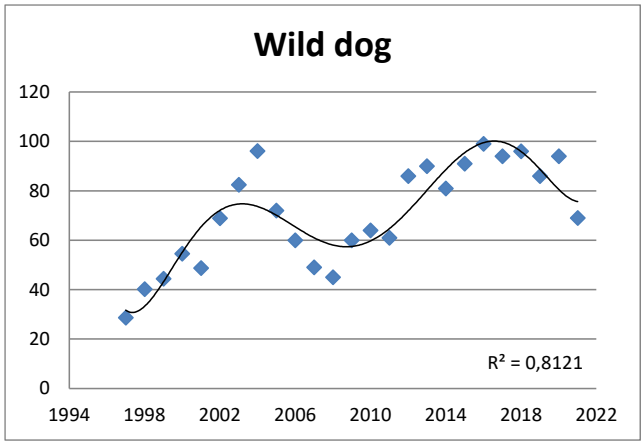

Figure 1: The African Wild Dog population trend in Savé Valley Conservancy (counts include adult and yearling wild dogs only from April each year).

Please see below for some highlights from the 2021 denning season in SVC.

Clockwise from top left: Feeding time at Snap pack; Nova pack puppies look like they are up to no good; alpha female, Brie, is a busy mom with many mouths to feed.

Gonarezhou National Park

Part of the review of our work over the past year involved a shift of focus with regards to our research approach in and around Gonarezhou National Park (GNP). In 2021, and after discussions with the Gonarezhou Conservation Trust, we did not comprehensively monitor African wild dogs in the park. This decision was based on the fact that our research has shown that the wild dog population has remained stable at 100-120 adults for the past 6 years and, whilst we will continue to monitor the trend of the population through annual survey methods, it was agreed that our investment and research expertise would be more valuably applied through a presence in the Sengwe-Tchipise Wildlife Corridor south of GNP.

Monitoring trans-boundary movements and anthropogenic impacts on wild dogs – *to ensure well-connected and sustainable large carnivore populations in both SVC and GNP, and surrounds*

It is of the utmost priority for AWCF, firstly, that the large carnivore guilds in both SVC and GNP continue to thrive, and secondly, that we focus on understanding better to what extent our conservation efforts can contribute at the transfrontier landscape level. Many of the pressing threats (e.g., habitat loss in surrounding areas, by-catch in wire snares set by bushmeat poachers, human persecution and rabies) facing large carnivores in protected areas, SVC and GNP included, are exacerbated by restricted connectivity with neighbouring protected areas.

We continue to strive towards this overarching goal, and it was this key objective which drove the shift in our focus and inspired AWCF to establish a full time presence and research in the Sengwe-Tchipise Wildlife Corridor.

Research in the Sengwe-Tchipise Corridor (STC / the corridor)

AWCF's head scout, Rueben Bote, began operating fulltime in the STC in July 2021. This work is being carried out with permissions from and under the authority of the Chiredzi Rural District's Council (RDC), and in collaboration with both the RDC and our conservation partner in and around GNP, the Gonarezhou Conservation Trust (GCT).

The key research objectives for this work are as follows:

- To understand the seasonal, temporal, and spatial dynamics of all large carnivore and key herbivore (elephant and buffalo) species in the corridor.
- To identify potential and/or actual barriers to the dispersal of species to gain insight into the effectiveness of the corridor.

From July-December 2021, Rueben moved through the corridor strategically, tracking and recording the movements of large carnivores and other wildlife, as well as starting to identify conflict and poaching 'hot spots' and noting other potential barriers to connectivity (areas of high human density / movement). Rueben has also supported human-wildlife coexistence programs in the area (led by GCT).

Apart from one sighting of an African elephant and one sighting of a side-striped jackal, Rueben has not had visual of any other wildlife species in the corridor. However, he has **detected tracks / spoor of key large carnivores, including lions, leopards, spotted and brown hyenas, wild dogs, and one track of cheetah thus far**, as well as a variety of prey species (Figure 2 and 3 below). However, for the most part and to date, these records are infrequent and few in number, so likely to be individuals passing through rather than resident populations. We have also not (yet) picked up tracks of cubs / pups which would be more common with resident and breeding individuals.

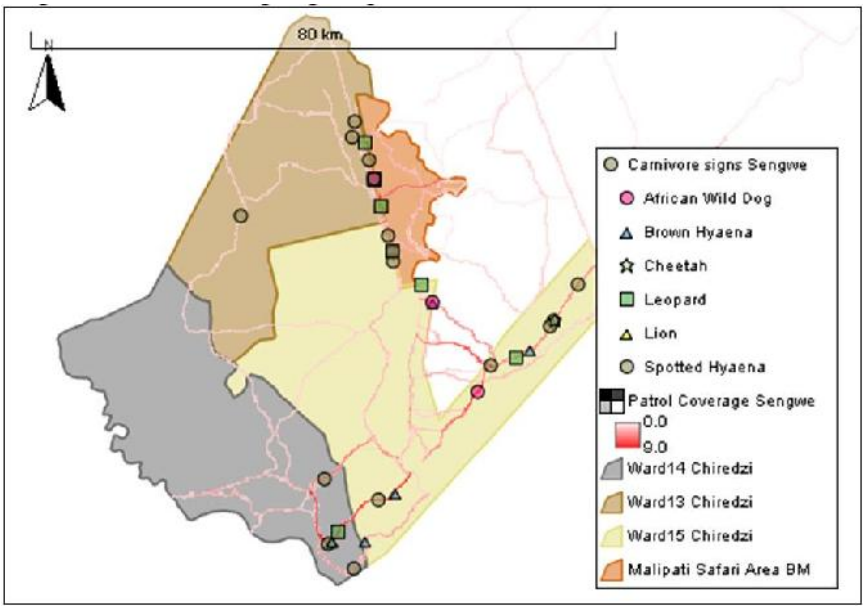

*Figure 2. Total **indirect large carnivore records** for the period July – December 2021.*

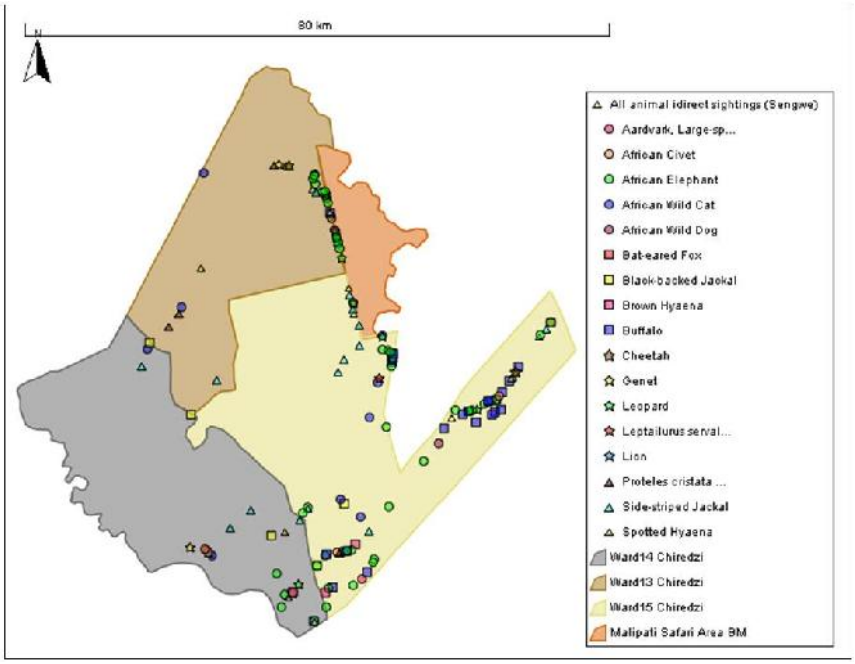

*Figure 3. Total **indirect wildlife records** for the period July – December 2021.*

Part of our targeted approach included carrying out a large carnivore spoor survey in the corridor. This was achieved between the 25th of August – the 6th of September 2021. Rueben was the tracker / observer as always, and the same methodology was followed, and the same tracks driven as per the surveys the AWCF team carried out in 2014 and 2019 in the STC.

As shown in Table 2 below, encounter rates have remained consistently low over the years, and below 25 encounters for all species. A minimum encounter rate of 25 is required to be able to determine population estimates with any statistical confidence. Therefore, at best, **we can confirm the presence of large carnivores in the corridor (but at very low densities)**.

Table 2. Results of the 2021 annual large carnivore spoor survey in the STC.

Parameter	**Sengwe 2014**	**Sengwe 2019**	**Sengwe 2021**
Area (km^2)	2665	2665	2665
Combined transect length (km)	420.8	402.8	410.6
Penetration ratio	1:6.33	1:6.62	1:6.49
Encounter rates for species:			
Lion	1	0	1
Spotted hyena	17	17	12
Leopard	5	7	7
African wild dogs	1	6	1
Cheetah	0	1	0

Although this report marks the end of the 2021 year, our work in STC is still in early and exciting stages with incredible scope to meaningfully contribute to transfrontier conservation. We have begun to gather very useful and important baseline data on wildlife and large carnivore movement and presence in the corridor. However, we are yet to collect seasonal data and observe changes in temporal behaviour, which can only be evaluated over time and through long-term research. We are incredibly excited about the potential for this work and as such have included it as a new objective for our proposed extended project.

Deployment of Satellite Collars to Assess Connectivity and Mortality Risks

Due to our comprehensive monitoring of resident wild dog packs, we are able to effectively identify 'high-risk' packs; these are packs which tend to move across the boundaries of the protected areas, closer to human settlements, and which are at the biggest risk of picking up snare wires. In 2021, we **deployed satellite tracking collars on two of our high-risk packs in SVC**; Snap pack and Gomo pack. Further, both of the wild dogs we saved from snares in 2021 were from these collared packs attesting to the impact of this approach and the benefits of being able to monitor the packs more frequently.

Snap pack in the north of SVC:

Left: Movement data for Dazza from Snap pack (June 2021 – February 2022).

Above: AWCF removes a wire from Staccato in Snap pack (August 2021).

As can be seen for Snap pack above, the pack is concentrated on the western boundary of the conservancy. Similarly, for Gomo pack (below), the pack spends all of its time on the southernmost ranches of the SVC and does wander close to human settlements. The fringes of protected areas are notorious for a higher level of snaring and human infringement.

Gomo pack in the south of SVC:

Left: Movement data for Legy from Gomo pack (September 2021 – November 2021).

Above: AWCF team with Legy post collaring in September 2021.

Very sadly, Legy was found dead in a poacher's snare line almost exactly two months after we collared him. The temperature reading and stationery fixes of the collar alerted us that something was wrong. Our scouts scoured the scene, and it took them two days to find Legy's carcass which had been pulled under a bush by the poacher. We never retrieved the satellite collar which we believe was buried or destroyed by the poacher/s. The death of Legy was a huge loss to the pack, which was reduced to four adults, as Legy was the only mature male in the pack and important for hunting success and defence. Further, we lost valuable tracking equipment and our monitoring efforts of this high-risk pack were severely hampered. **Poaching with snare wires continues to be the biggest threat to our resident wild dogs in the lowveld.**

Left: In October 2021, the AWCF team darted the alpha male of Riverside pack in the SVC after seeing him carrying a snare wire around his waist. Unfortunately, the damage from the wire was too severe, and he succumbed to his injuries shortly after our efforts to save him. Right: A wild dog is found dead from a snare around its neck near Naivasha camp neighbouring GNP (September 2021).

AWCF is a Key Partner in Pioneer Research on African Wild Dogs

In the course of 2021, we were involved in a collaborative and international study aimed at understanding, projecting, and mitigating the impacts of climate change as an anthropogenic factor on the endangered African wild dog. This is a multi-site study, and the research team includes researchers from the UK, South Africa, Kenya, Botswana, USA and Switzerland, in addition to the AWCF team in Zimbabwe. The title of the project is: '*Hot Dogs: climate change impacts in an endothermic predator*'.

In May 2021, the **AWCF team worked with international veterinarians to deploy state of the art collars (which record the daily movements) and temperature logger implants on eight wild dogs in SVC.** The movement data and core temperature of the individual wild dogs will be logged and correlated with data from local weather stations, and will over time allow us to better understand how changes in ambient temperature might affect the daily movements, hunting, and provision of puppies of wild dogs.

We are due to remove the collars and perform the ex-plant surgeries in April of 2022, and thereafter, along with project partners, will begin to consolidate and analyse the wealth of data retrieved from the technology.

This research will have major implications for the conservation of African wild dogs, because it will help to target conservation action for this endangered species under climate change. Specifically, we anticipate that this work will also benefit populations of African wild dogs throughout Zimbabwe, by helping to indicate how the national wild dog population might best be managed over time, and by helping to predict its likely impact on ungulate populations. We anticipate both academic and conservation outputs from this work, and it will undoubtedly put Zimbabwe on the map as a leader in international conservation and climate science for endangered species.

The AWCF team deploy a collar on Jazz from Festive pack in SVC for the climate change study (May 2021).

Interspecific competition – investigating the impact of lions on wild dogs

In 2021, we carried out the **14th and 13th annual large carnivore spoor survey in SVC (October 2021) and GNP (September 2021) respectively**, contributing to a long-standing data set and providing valuable data for ecologists and management. As such, we have over a decade's worth of long-term population trend data for lions and wild dogs in SVC and GNP. Further and in the course of 2021, we also initiated and oversaw (in partnership with GCT) a focused lion research project to better understand the dynamics of the resident lion population in the park.

Very interestingly, our research revealed **unexpectedly low estimates for lions in both SVC and GNP** which has **likely resulted in a shift in the inter-specific relationship between lions and resident African wild dogs**. In 2021 in SVC the survey recorded a sharp decline in encounter rates and estimates from 251 lions in 2020 to 118 lions in 2021 (Figure 4). In GNP, we recorded an estimate of 51 lions in 2021, compared to 155 lions in 2020 (Figure 5). Through our focused lion project, we found reported sightings (tourists, rangers, research) to be much lower

than anticipated too, corroborating the findings of the spoor survey and possible concern over the resident lion population.

Prior to 2021, encounter rates* have been relatively stable across all large carnivore species for the past few years in both protected areas. Therefore, and importantly, the fact that the 2021 encounter rates were lower for leopard and spotted hyena as well as lion in GNP, and low for spotted hyena and lion is SVC, is perhaps an indication of environmental factors at play, compounded by an increased threat / issue for the resident lion populations.

** Encounter rates indicate the number of times we encounter tracks for each species across all transects. Encounter rates do not account for the number of individuals or sum of tracks, e.g., a sighting of spoor of two male lions moving together would be recorded as one encounter. A minimum encounter rate of 25 is needed to be able to estimate population numbers with any statistical confidence.*

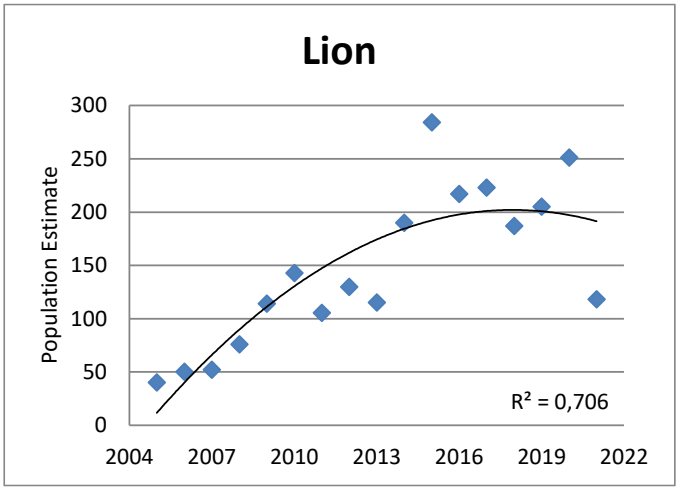

Figure 4: Population trend for lions in the Savé Valley Conservancy

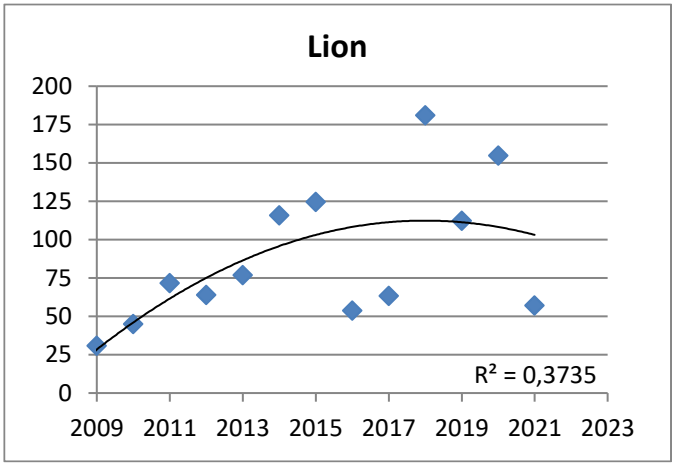

Figure 5: Population trend for lions in the Gonarezhou National Park

We continue to work closely with SVC and GCT management and partners to investigate these findings more thoroughly before drawing any hard conclusions about the status of lions in both projected areas, as well as the impact the populations could have on resident wild dogs moving forward. However, when we consider existing mortality data from our study site (2008-2021), death or injury from lions has been a significant cause of adult and pup wild dog mortality (Figure 6).

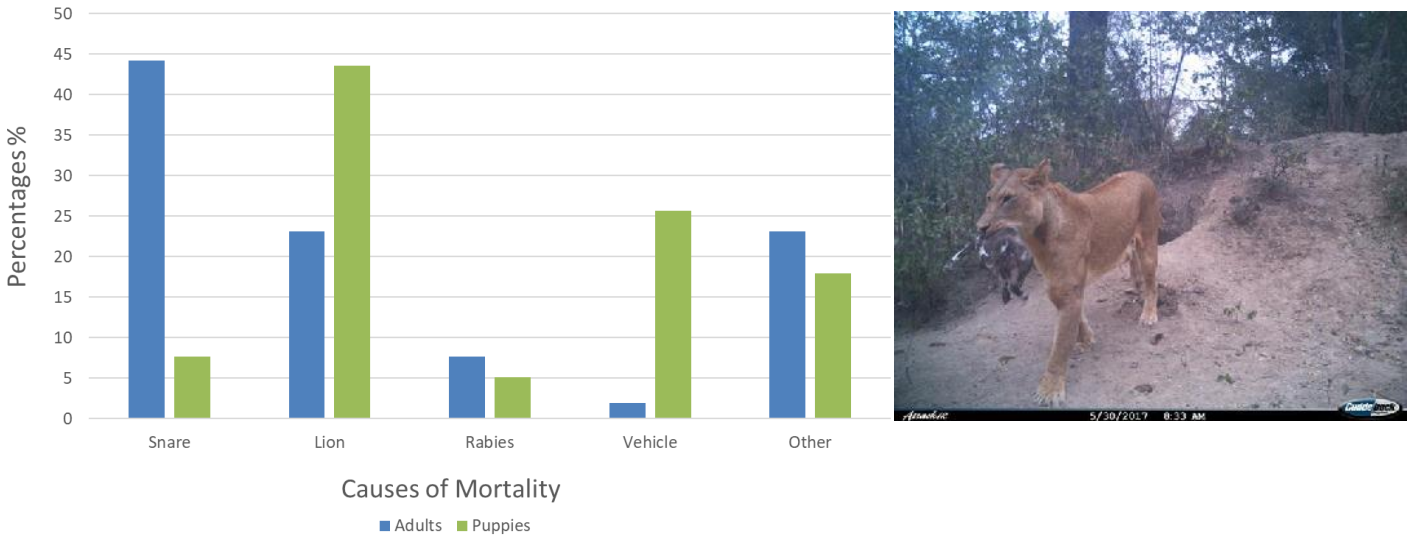

Figure 6. Major causes of mortality for a wild dog adults and puppies in the south-east lowveld (2008-2021).

Notably, two relevant papers have been published in the course of this project;

1. *Groom, R. J., Lannas, K. and Jackson, C. R. (2016), The impact of lions on the demography and ecology of endangered African wild dogs. Animal Conservation DOI:10.1111/acv.12328*
2. *Tensen, L., Groom R.J., Khuzwayo, J. & Jansen van Vuuren, B. (2018) The genetic tale of a recovering lion population (Panthera leo) in the Savé Valley region (Zimbabwe): A better understanding of the history and managing the future. PLoS ONE 13(2): e0190369. https://doi.org/10.1371/journal.pone.0190369*

Education and Outreach in the schools surrounding GNP and SVC

All of our work with schools and communities is done under permits from the Ministry of Education, and we have formal support letters from the Provincial Education Director, the District Education Officers, and signed MOUs with the Rural District Councils.

Alongside our important predator monitoring and research, we also have a multifaceted and effective education and outreach program (focused on rural schools' education). As mentioned in our previous report, this program has undergone restructuring and strategic review, but plans to introduce the revised program to the schools have been hampered by Covid-19 restrictions.

However, perhaps one of our most exciting achievements in 2021 was finally being able to carry out our **teacher training workshops to introduce the new Environmental Education (EE) program to 108 supported primary schools around SVC and GNP.** This was the first fundamental step in bringing the revised program to life!

Teacher Training Workshops

To ensure the smooth implementation of the new EE program, AWCF organised teachers training workshops (September 2021) for all schools under its program from communities adjacent to both the SVC and GNP. Altogether 108 primary schools, 108 headmasters, 216 teachers, and representatives from the district education offices participated in the workshops. The aims of the training workshops were:

- To discuss with teachers AWCF's education program in general, sharing successes and challenges it has faced over its nine years in existence.
- To introduce the new EE program to teachers and headmasters explaining the need for change.
- To emphasise the importance of teachers/headmasters on the ongoing engagements with students on concepts introduced by the education team visits.
- To illustrate the link between education team visits, teachers ongoing engagements and cluster competitions (the three pillars of education program).
- To get feedbacks and support from stakeholders on the new program and incorporate any suggested changes during the implementation stage.

*Clockwise from top left: We had **100% turnout at all workshops** showing the dedication of our teachers and partners to this new program; AWCF's chief education officer, Mr Chibaya, addresses the teachers; A group of teachers familiarise themselves with one of the new lesson activities.*

The workshops were a success, and the new program was welcomed by our supported schools and teachers. Giving closing remarks at Mbuya Nehanda primary school, Mr Mahofa, DSI for Bikita District described the EE lesson content as rich and engaging, he said:

> *"I am glad that I attended this workshop, and I am very impressed on how you presented and articulated the new EE program to us. I am an educator and I have experience in the formulation and planning of lessons and curricula, this program you are doing in schools is complementing what the teacher is already teaching in her or his class, the topics are in harmony with our curriculum. This EE program encourages our learners to be independent thinkers, I liked that the lesson comes with discussions, tasks, demonstrations and practicals. This will enable our learners to apply these lessons practically in their communities; learning by doing also ensures that the concepts grasped are not forgotten. I am positive that our learners will grasp all the concepts and share them with the greater community. I will make sure that the teachers do their part, and I cannot wait to attend the much anticipated cluster competitions"*

The workshops were also the perfect opportunity to introduce our most recently employed Education Officer, Godknows Nyuwani (left), to all of our supported schools. Godknows is a Zimbabwean from the Tsonga/Shangani community in the south-eastern lowveld. Godknows has over seven years of experience working with local schools and communities, and his background and multilingual skills make him a valuable team member. Godknows will be working directly with our 44 supported schools around GNP.

Annual Cluster Competitions – a key pillar of our revised EE program

As mentioned above, **cluster competitions have been identified as a critical activity central to our new EE program and for promoting conservation awareness and capacity building in students and teachers.** The cluster competitions, which will be linked in the term themes, will be an opportunity to reinforce messaging and lessons taught in the classroom.

The 2021 cluster competitions were held at three different venues from the 13th to the 15th of December 2021. The competitions were centred around the following theme; *The Circle of Life - Us and Our Environment - Spreading the Conservation Message*.

One cluster competition was held at Mupinga primary school in Chiredzi District, and the other two competitions were held at Chiremwaremwa and Mbuya Nehanda primary schools respectively (Bikita District). **Altogether, 17 primary schools, 170 learners, 34 teachers, and 17 headmasters participated in the competitions. The competitions were also attended by 403 community members.** We were also incredibly honoured to have Chief Budzi attend the cluster competitions; this highly esteemed traditional leader was quoted saying:

> *"I have a good relationship with the AWCF team, they understand the role of communities in wildlife conservation, and they also care about us as neighbouring communities. I have seen their work and projects in communities, recently we launched the fence guardian project which is scheduled to start next year. Today I had a chance to experience some of their work in schools, I want to applaud them for organising these competitions. We have learnt a lot and it was amazing to note that our children have different talents. As a community leader, I am going to make sure that my people participate in conservation for the benefit of future generations and also for the development of my community"*

Clockwise: Students from Jekero Primary pose with their informative and well-designed poster; Mr Mudisi and Mr Chemvumi looking smart in their new AWCF t-shirts; and students from Madzivire Primary school in high spirits after earning the first prize at Mbuya Nehanda.

Educational Day Trips in SVC

This is probably **one of the most valuable and impactful aspects of our work**. We have many direct testimonies from students and teachers to confirm how much they enjoy these trips into the protected areas, and attesting to the important conservation and wildlife knowledge acquired. Due to continued disruptions as a result of the pandemic, we were not able to carry out as many day trips as usual, but we did organise four day trips in SVC.

The day trips (October 2021) included four primary schools from Chipinge District namely, Matikwa, Rimbi, Magumire and Manzvire. Altogether 100 learners, eight teachers (conservation quiz masters and conservation club patrons) and four headmasters took part in the day trips. These day trips are, for many students and teachers, a once in a lifetime opportunity to visit a protected area and see wildlife first-hand. We try to make the day trips as fun and informative as possible, and include visits to ranch workshops, camps, and the headquarters of Anti-poaching and Tracking Specialists; the security authority for the SVC.

Left to right (top to bottom): Students from Manzvire Primary are ecstatic to arrive at the SVC entrance boom; Huge excitement as the students scramble to take photos of wildlife sightings during their drive; The trips included a visit to the anti-poaching authority's base so that the students can hear first-hand about the damage and danger of poaching; AWCF's scout, Cain Kodzevhu, explains to the children about his day to day work conserving African wild dogs.

Support of Literacy in Schools

For the past eight years we have been reporting on our efforts to establish libraries in our supported schools as well as our provision of solar lighting (panels and lamps). Our **established libraries in 107 primary schools** (there is one satellite school which cannot support a library) and 10 secondary schools around SVC and GNP continue to do well, and we continue to supply schools with solar panels and lamps as we can, and sponsor support allows.

This work is achieved in partnership with international sponsors (Zambezi Schoolbook Project and Bourke Family Foundation), so we have unfortunately not made as much progress in this aspect of our work over the last two years as Covid-19 as delayed international shipments and logistics.

However, in **March 2021, AWCF facilitated the installation of two solar panel systems in Manyiri Primary (Zaka District) and Zungudza Primary (Chiredzi District).** These schools were selected as participants for a solar system as they have a good track record in managing their libraries and other resources donated to them by the AWCF and its partners. The solar system is set to benefit 150 people including students, teachers and community members that reside close to the school. The solar system will enable the schools to utilise their libraries during the night, students will also have a chance to complete their homework, and teachers will have ample time to read and plan their lessons.

There is strong evidence to support the noticeable and positive impact of AWCF's literacy resources in schools, both with regards to comprehension and literacy in students, as well as improved pass rates in schools.

Providing Scholarships for Students to Attend Secondary School

We **continue to support (with tuition and welfare) our 23 secondary secondary school students and three university scholars though our scholarship program**. This support included a conservation and leadership field course in December 2021. Very sadly we had one of our female scholars from around GNP drop out of the program this year. It is believed she has married.

We offer scholarship bursaries to excelling students among the selected primary schools in our schools' program. Students under the scholarship programme have their secondary tuition fees paid for, and are provided with uniforms at the beginning of form 1, 3 and 5. Our support also extends to providing extra lessons and stationery supplies (where needed) for the students, and to help pay for accommodation should children need to attend schools far from their family homes. These children are all needy, and none of the students would have had the opportunity to attend secondary school without our support. The students are known as Predator Scholars, in order to maintain the link between the wildlife and the benefit.

Further, and over the last three years, we have developed our **annual scholarship course** (always hosted at our project base in SVC) to include career development and professional skills for the older scholars. This is in an effort to prepare them for work or study opportunities.

AWCF scholarship students enjoy themselves at the 2021 annual conservation and leadership field course!

Left to right: Students out on a bush walk with course coordinator, Dolf Sasseen; The scholars enjoy touring the glamourous ranch camps and learning about what it takes to run a conservation and tourism enterprise (Dec 2021).

Community Support and Engagement – *partnering with neighbouring communities*

Our engagement with, and support of, the communities neighbouring SVC and GNP has progressed well past the provision of education resources and conservation awareness. Fundamental to our work in the landscape, alongside our conservation research, is engaging with neighbouring communities through legitimate and mutually beneficial partnerships, and with genuine support for livelihood improvements. We made significant strides towards this goal in 2021.

Eight Ladies from Muvava Community (SVC) Trained in Garment Making

Through our relationship with supported communities, there is a general consensus, and strong request for, **assistance with projects which empower the communities with alternative livelihood options**. As well as the need to invest in the women of communities who are often marginalised. As such, AWCF facilitated the training of eight women from seven villages in Bikita District. The three months vocational training course in garment making was facilitated by Ms Munetsi, a seasoned dress maker who has immense experience in garment making and fashion studies.

The course commenced on the 5th of March 2021 and the women graduated on the 17th of May 2021. These eight ladies have 54 dependents between then, so the impact of this initiative will extend beyond benefitting the eight ladies alone.

The eight ladies were thrilled with their training and provision of start-up equipment.

Community Fence Guardians' Initiative

November 2021 marked the start of an incredibly **exciting partnership between AWCF, SVC and neighbouring communities in villages 10, 11, 15, and 19**. Although in its early stages, the fence guardians' partnership will involve contracting neighbouring communities to help to maintain and patrol sections of the SVC's western boundary fence, which we believe will provide multiple benefits to the conservancy and the communities involved.

The selected individual will each be responsible for a section of the fence and will be paid to fix and maintain it, and report any breaches or damage to the fence. Sections of the western boundary fence are particularly permeable for rhino and other protected species, and AWCF also monitors a couple of wild dog packs which move across the western boundary often, so improved community relations and anti-poaching would be a huge benefit.

Not only will this initiative provide paid employment for local people, but it will also help to minimise the amount of wire in easy circulation for snares, hopefully reduce illegal activity in SVC, reduce human-wildlife conflict and protect people's livelihoods.

Left to right: AWCF's Kudakwashe explains the concept of the fence guardians' initiative to community members during the inception workshops held in November 2021. Right: These workshops were supported by representatives from SVC management, Zimbabwe Parks and Wildlife Management Authority, and Anti-poaching and Tracking specialists (a key partner to this work).

Reducing the threat from rabies through domestic dog vaccination campaigns

Given the close proximity of high density communities, and associated domestic dog populations, to the boundaries of both SVC and GNP, regular rabies vaccination campaigns are a must to prevent outbreaks of the virus. A suspected case of wild dogs infected with rabies in April - May 2021 in the north of GNP emphasises the importance of this approach. The pack spent a fair amount of time moving and hunting in the villages adjacent to the park and it is likely the wild dogs contracted the virus (or a similarly infectious disease) whilst doing so. AWCF head scout, Rueben Bote, reported accounts of communities trying to defend their livestock from the wild dogs, and attempting to drive the pack off by having their domestic dogs chase them. In response to this, and in partnership with GCT, Veterinarians for Animal Welfare Zimbabwe (VAWZ), and the Veterinary Department of Zimbabwe (VET), we carried out a rabies vaccination campaign from the 23rd to 28th of May 2021 in Chiredzi District.

The campaign targeted the communities living adjacent to GNP, and which had experienced direct encounters with the wild dog pack. **A total of 801 domestic dogs were vaccinated** out of the anticipated 1,008 which were censused. This was a first-time campaign in this area and often the turnout is not as good as with repeat campaigns. We hope to be able to do a follow up campaign in this area in 2022 to bolster our efforts and further benefit the people and protect the wildlife. The benefit of these campaigns extends beyond just reducing the chance of disease transmission from domestic dogs to wildlife, but brings about **positive change for human and domestic dog welfare and the livelihoods of the affected communities**.

Mr Gono, a VET officer, had this to say:

"I want to commend the AWCF for this great work, they have made my job easy. This free rabies vaccine has come at a time where the government is struggling to provide us with vaccines. Most dogs in my area of jurisdiction are not vaccinated and I have received reports of rabid dogs, last month we lost a very promising young man to rabies. Thank you for creating awareness on this disease and also on the proper welfare of our dogs. In addition to that you have made the communities understand the importance of conserving wildlife, they have tasted its benefits through these campaigns. If you continue to assist communities like what you have done here, I am positive their attitudes and perceptions towards wild animals will progressively change for the better".

Left to right: AWCF's attachment student, Lennox Runduke, interacting with community members during the campaigns, Bernard from VAWZ administering the rabies vaccine, and ever smiling Khesani posing with his dog and wild dog conservation flyer at Chibwedziwa dip tank.

Supporting anti-poaching efforts to mitigate snaring as a cause of wild dog decline

African wild dogs are the flagship species of our organisation, and the sustainable conservation of resident packs is central to all of our efforts. **Death and injury from wire snares (set by bushmeat hunters) is the greatest cause of known adult wild dog mortality in SVC (impacting between 5 and 10% of the adult population each year), and continues to threaten wildlife throughout the south-east lowveld**. Indeed, and in the last year (as described under objectives 1 and 3) we have saved two African wild dogs from snare wires (August 2021), but also recorded two wild dog deaths from bushmeat poaching (October and November 2021). This equates to just under 6% of the adult population injured / killed in snare wires.

We continue to do what we can to combat this threat; removing snares from the field, reporting criminal activity, and closely monitoring our high-risk packs. However, the most effective approach by far is to support our local anti-poaching units (including through logistical support, manpower, financial support for intelligence operations). In 2021, assisted through contributions from AWCF, Advanced Tracking Specialists (security authority in SVC and partner to AWCF) removed 400 copper wire snares from the bush, arrested six meat poachers, made four intelligence-related arrests, and recovered 1 automatic rifle and 2 axes.

Left: AWCF scout, Akim Nemaringa, removes snare wire from the field during his daily patrols.

Conclusion

AWCF is invested long-term in the conservation of African wild dogs and all wildlife, and we are fully dedicated to our work and programs in the Zimbabwean lowveld. As illustrated above, we are producing many meaningful and significant benefits for the conservation of local wildlife, and for the upliftment of the local people. We will never stop striving to find ways to improve or adapt our approaches so that we may continue to make a tangible and sustainable contribution to the conservation of Africa's precious wildlife.

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AWCF's main partners are: