

Waterberg Wild Dog Initiative

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2021 Denning Season Ecotourism Report

Waterberg Wild Dogs



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Introduction

The only known breeding pack of Waterberg Wild Dogs, located between Lephalale and Vaalwater, successfully reared seven new pups during the 2021 denning season. This report presents the results of the wild dog based ecotourism coordinated by the Waterberg Wild Dog Initiative (WWDI) over 6.5 weeks during the denning season. This model generated funds from visitors paying to see the wild dog pack and distributes the funds back to the landowners impacted by the pack denning on their property and the surrounding properties. This model seeks to leverage the opportunity to observe free-roaming wild dogs while they are relatively stationary during the denning season and use the funds generated to mitigate the impact of the wild dogs on the properties around the chosen den site by using the funds raised, as well as providing tourist opportunities for the landowners affected by the presence of the wild dogs during this time. This period also provided an opportunity to increase awareness and appreciation for the Waterberg Wild Dogs and to learn new information about them that can be shared with the local community and interested researchers.

Stats At A Glance

Length of Ecotourism	46 days
People That Saw The Pack	254
Carcasses Supplemented	33
Value of Carcasses Supplemented	R83,150
Potential Hunts	33
Total Ecotourism Guests	144
Financial Donation Guests	114
Carcass Donation Guests	30
Total Amount Raised	R54,250
Monetary Value of Assistance Provided to Landowners	R137,400

Pack Information

Adult Females	1
Adult Males	2
Yearling Females	4
Pups	7
Total Pack Size	14



About the Waterberg Wild Dog Initiative

The Waterberg Wild Dog Initiative (WWDI) was founded in August 2020 and is a non-profit, community-driven project aiming to conserve the free-roaming African Wild Dog population in the Waterberg Biosphere, Limpopo. WWDI works closely with the community to aid conservation efforts by monitoring and tracking the wild dog packs, collecting accurate data, providing information and education, and raising awareness about the Waterberg Wild Dog population.

WWDI operates underneath Waterberg Tourism NPC, a non-profit company promoting tourism to uplift the development of the Waterberg community. WWDI is managed by a dedicated Project Coordinator and overseen by a Steering Committee.

Ecotourism Overview

From June 22nd to August 7th, WWDI coordinated ecotourism excursions for guests to have the opportunity to view the pack while they remained relatively stationary at a den site on a private game farm that forms part of an approximately 5,000ha conservancy area hosting plains game.

Guests were taken on a guided game drive to an area about 500m-1,000m from the dogs' den site, where the dogs were called-up to feed on a provided, fresh carcass. This opportunity allowed guests to learn more about the Waterberg Wild Dogs, experience the conservation work going into them, and view the pack from 3-20m away (dependent on individual dog personalities). Guests were asked to make a minimum financial donation of R650 per person or R3,500 per game viewer (limit 9 people) to attend. All visits were coordinated to align with when the dogs could be expected to naturally be hunting, usually in the afternoon hours.





During this time, **144 guests** donated to view the pack. 114 guests made a direct, monetary donation and 30 guests donated carcasses in exchange to attend. A **total of R54,250** was raised over the 6.5 week period through the direct monetary donations required to attend the ecotourism. Combined with the monetary value of the carcass donations received to supplement the pack's diet (valued at R83,150), approximately **R137,400** was raised to assist landowners during this time.



Due to COVID-19 travel restrictions on visitors from Gauteng, the majority of guests that attended the ecotourism were from the local Waterberg community. Landowners that substantially hosted the pack outside of the denning season were invited to see the pack without making any financial donation. A total of 254 people viewed the pack during the entire time they were stationary in the area. This figure includes ecotourism guests, property shareholders and staff, WWDI staff and sponsors, and any repeat attendees.

Environmental education and engaging the younger community is extremely important for conservation. Many children had the opportunity to view the wild dog pack, getting a hands-on



experience of conservation work. 15 students from the local township, Leseding, were able to view the pack through the collaboration with the Welgevonden Environmental Awareness Programme (WEAP). In total, approximately **40 of the 144 guests (28%)** that attended the ecotourism were children.

COVID-19 & Situational Implications

The third wave of COVID-19, corresponding restrictions on travellers from Gauteng, and the riots and looting in South Africa severely dampened the success of the ecotourism. Many interested parties were unable to attend due to the restrictions, positive COVID-19 test results, 14-day isolation periods, fears of fuel shortages, inability to travel, school closures etc. The ecotourism excursion remained compliant with COVID-19 regulations and required the wearing of masks, hand sanitization, and sign-in sheets that confirmed no attendees were knowingly positive or had been in contact with a COVID-positive person within 14 days of attending. No attendees were seated on the game viewer next to anyone that did not belong to their same group. An exclusive rate was offered that allowed guests exclusive use of the game viewer for their party, making the experience both more COVID-safe and financially feasible.

We project that, in the absence of COVID-19, figures from the ecotourism would have been much higher. Based on a similar ecotourism excursion conducted in 2018 by the Endangered Wildlife Trust and ease of access with the 2021 ecotourism, we anticipated 50% more guests, especially from Gauteng, totalling near 215 guests and raising approximately R80,000 in monetary donations.

Diet Supplementation

Throughout this period, the pack's diet was supplemented **33 times** with fresh carcasses provided by the local community to reduce their predation in the area and to allow guests to view the pack. Supplementing their diet with these carcasses had the potential of **reducing the predation on the supporting farms by 50%**. The monetary value of these donations is estimated at **R83,150** (see Table 1 in the Annexure for details). Carcasses provided were fresh, in good condition, lead bullet-free, and disease-free prior to death. Carcasses that weren't used within 1-2 days of time of death were gutted and stored in a cold room. Larger carcasses like kudu, zebra, and wildebeest

were partitioned and used to feed multiple times. The smaller bushbuck was combined with an impala carcass.

Carcass Type	Number of Feeds
Blesbok	1
Impala	19.5
Wildebeest	6
Zebra	4
Bushbuck	0.5
Kudu	2
Total	33



Table 2. Carcasses fed to the pack during the ecotourism period. A total of 29 carcasses were donated. Some of the larger carcasses (zebra, wildebeest, kudu) were partitioned and used to feed 2-3 times. The smaller bushbuck was combined with a smaller impala feeding. The number displayed above is the number of feedings resulting from the 29 donated carcasses. See Table 1 in the Annexure for list of donated carcass types.

Hunting Patterns

During the period where the ecotourism was being coordinated, from June 22nd – August 7th, the pack potentially attempted to hunt **33 times**. The exact number of successful hunts cannot be determined but an estimate of the hunting frequency and location was determined by GPS collar data. Two IR-SAT collars on the pack were set to sync every hour from 5:00 AM – 10:00 AM and from 2:00 PM – 9:00 PM. These time intervals were determined and established to correspond with when the pack would be expected to be hunting.

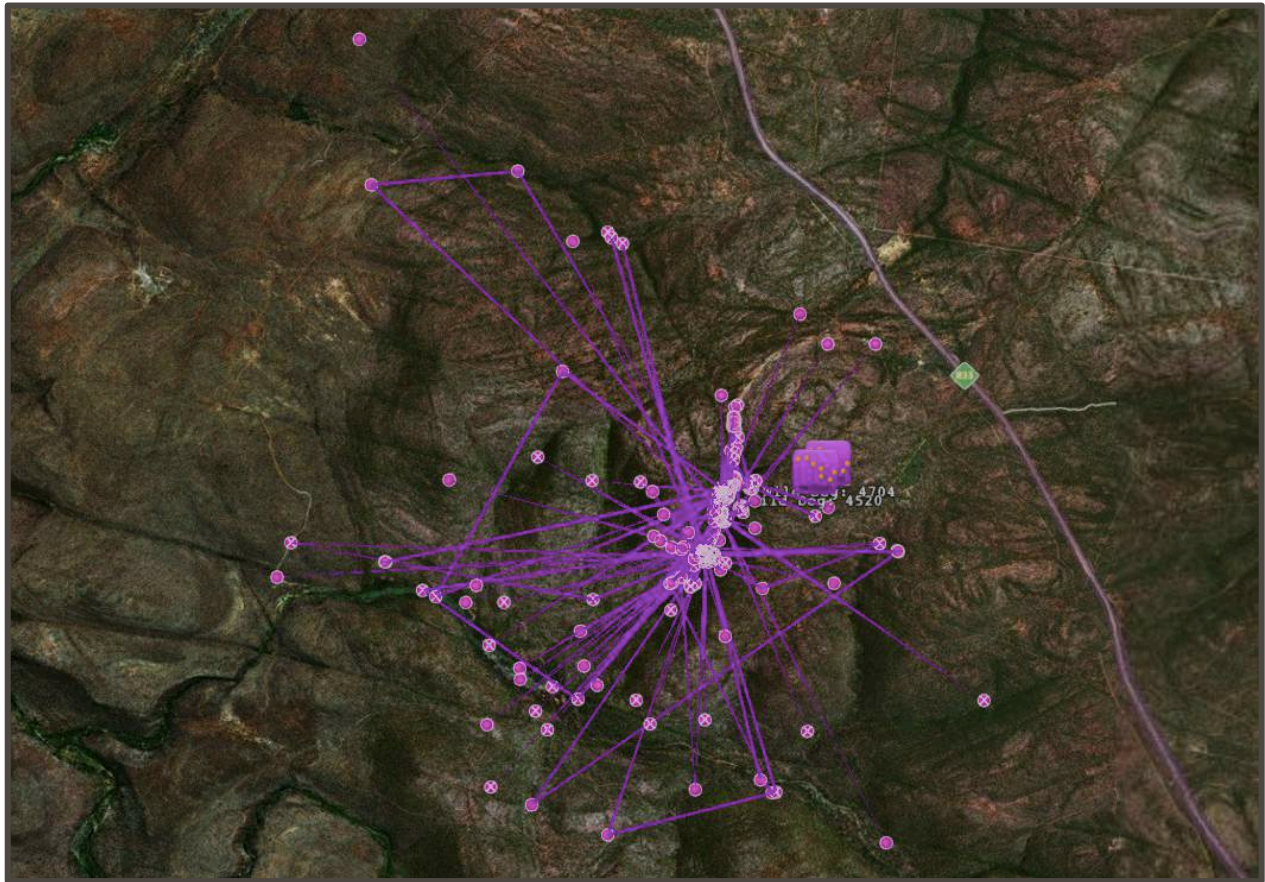


Image 1. Total GPS pins received from the two IR-SAT collars from June 22nd – August 7th 2021.

A 'hunt' was classified as any movement more than 200m away from the den site. The furthest recorded hunt for the pack during this time was 5km North of their den site. The majority of hunts were within 1-2km of their den. Hunt location and time were determined by the furthest point from the den site during the hunt period. Only one hunt was allocated per potential hunting period (morning or afternoon), for a maximum of two potential hunts per day.

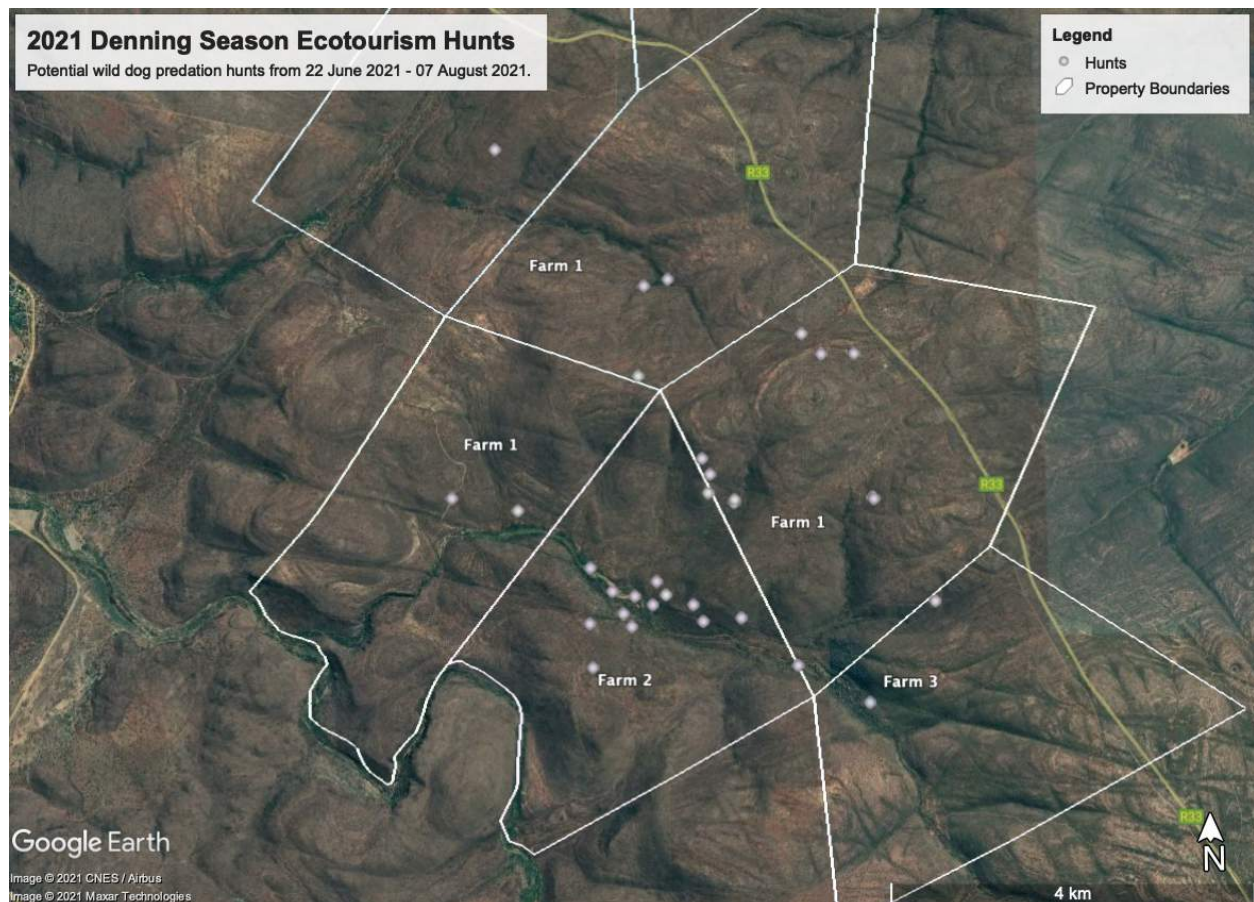


Image 2. Map of recorded hunts during the ecotourism period. Farm 1 is a conservancy area comprising multiple farms that have dropped fences.

Cost to WWDI

The costs incurred to WWDI to coordinate and facilitate the ecotourism excursion were minimised as far as possible. The main cost was the fuel and salary for the WWDI Project Coordinator to organize carcasses and pick up gear and the cost of the guide's fee (a qualified guide's services were used to be legally compliant). To further reduce fuel costs, the guide and the WWDI Project Coordinator temporarily relocated to live on the hosting property for the duration of the denning season. The total cost to coordinate the ecotourism was **R49,142.46**. For a complete breakdown of costs, please see Table 3 in the Annexure.



Ecotourism Funding Distribution

The funds raised from the direct monetary donations made to attend the ecotourism will be distributed to offset basic expenses associated with running the ecotourism, to the property directly hosting the dogs and allowing the ecotourism to function, and to a hunting remuneration fund to offset some of the pack's predation costs on the properties where the pack was hunting during this time.

Gross total funds raised: R54,250.00

Ecotourism Operation Expenses: R17,731.80 (see Table 4 in Annexure)

Net total funds raised: R36,518.00

Farm 1 - Hosting Farm: R18,259.10

Hunting Remuneration Fund: R18,259.10

The Hosting Farm received 50% of the net total funds raised to pay for the use of the property to conduct the ecotourism, game viewer rental, accommodation and lodge use by the WWDI team, maintenance and upkeep of the farm roads, and any other wear or damage incurred by the facilitation of the ecotourism.

The Hunting Remuneration Fund is divided amongst the properties where the dogs were hunting during the period when the ecotourism was running. This fund is divided based on a percentage of the total potential hunts calculated from the GPS collar data on the pack during the period the ecotourism was running. For the 2021 denning season ecotourism period, this fund has been divided between three properties determined via the GPS satellite collars to have incurred wild dog predation during this time.

Property Name	# Hunts	Percentage of Total Hunts/Funds Allocated
Farm 1	17	51.5%
Farm 2	14	42.4%
Farm 3	2	6.1%
Total	33	



This equates to the properties receiving the following amounts from the Hunting Renumeration Fund:

Farm 1 Hunting Portion: R9,403.44

Farm 2 Hunting Portion: R7,741.86

Farm 3 Hunting Portion: R1,113.80

In conclusion, the funds raised from the 2021 denning season ecotourism were allocated to the following parties.

Farm 1 – Hosting Farm	R18,259.10
Farm 1 – Hunting Portion	R9,403.44
Farm 2 – Hunting Portion	R7,741.86
Farm 3 – Hunting Portion	R1,113.80
WWDI - Ecotourism Operational Expenses	R17,731.80
Total	R54,250.00

Information Learned

A significant amount of incredibly valuable information was gathered about the wild dog pack during this time. The ecotourism allowed the WWDI team to study the pack in a way they had never been able to before. Prior to the ecotourism, WWDI had very little information about the pack and was reliant on assumptions and outdated information.

During this period, WWDI confirmed the number and sex ratio of the pack. Apart from the new pups, the pack contains 3 adults and 4 yearlings (total of 7). This count is fewer than the 11 dogs that were counted in August 2020 and the 9 dogs counted in January 2021. There is 1 adult female, 2 adult males, and 4 yearling females in the pack. The alpha female has a severe, old injury to her front right leg. She places very little-to-no weight on the leg and it has weakened her ability to move around. It is likely that she is not able to hunt with the pack. This finding may also explain the reduced home range size utilized by the pack than would normally be expected.



The alpha female gave birth to 7 new pups in May 2021 and all pups survived the denning season. The pack utilized four den sites on the hosting farm during the ecotourism period. Upon further investigation, WWDI found that the pack was disturbed by porcupines at their first 3 den sites. During the ecotourism feedings, the pack occasionally left the pups alone at the den, starting at only a few weeks old. Typically, wild dogs will leave behind an older dog to watch the pups while the pack hunts so this is very significant information.

Feeding preferences were seen in the pack. The pack has a strong preference for impala, a slight preference for blue wildebeest, and little-to-no preference for zebra and warthog. There were also many small game carcasses found near the den site. There was an experience difference observed in the feeding patterns between the adults and yearlings with different prey species. The yearlings were very inexperienced when feeding on warthog and zebra and approached the carcass more hesitantly than the older members of the pack.

Valuable data was collected from the pack during this time that will aid research purposes. Scat samples were collected from 5 of the dogs that can be used for future genetic analysis. Interspecies scent marking between the wild dogs and brown hyenas was observed with trail cameras and the data has been shared with predator scent communication researchers in Botswana. Recordings of the dogs' vocalizations will aid a research project categorizing wild dog vocalizations. This data collected will greatly help the Waterberg Wild Dog population contribute towards our knowledge and understanding of free-roaming African Wild Dogs.

Conclusion

The 2021 Denning Season Ecotourism was a successful operation. Despite many challenges faced, many guests had the opportunity to view the pack, raising much-needed awareness and funds for their protection during this critical time. This ecotourism operation is one of the tools used by WWDI to mitigate conflict during the denning season and proved effective despite COVID-19 pandemic restrictions and other political situations that occurred during the period. By generating an income stream for the properties supporting the pack and by potentially reducing the number of times the dogs predated by 50%, WWDI successfully helped the properties supporting the wild dog pack during this critical period.



In addition to mitigating conflict, this ecotourism period has allowed the Waterberg Wild Dog population to contribute towards conservation by adding seven new pups to the total known count of African Wild Dogs and by increasing our knowledge and data on free-roaming African Wild Dogs. Data collected and information collected from the pack during this time has been shared with researchers around the world. This information is also invaluable to our community members hosting the dogs outside of their denning season and will be used to inform management and conflict mitigation strategies going forward.

For further information, please contact the WWDI Project Coordinator at waterbergwilddoginitiative@gmail.com.

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Annexures

Table 1. Estimated value of donated carcasses taken from average auction price of each animal.

Table 3. Cost incurred to WWDI during the ecotourism period (6.5 weeks).

Table 4. Costs incurred to WWDI to facilitate the ecotourism operation to be remunerated.

Animal Type	Number of Carcasses Donated	Estimated Auction Price per 1 animal	Total Value of Donation
Blesbok Ewe	1	R2,300	R2,300
Impala Ewe	3	R1,350	R4,050
Impala Ram	17	R2,250	R38,250
Wildebeest Cow	2	R4,150	R8,300
Wildebeest Calf	2	R3,900	R7,800
Zebra	1	R5,350	R5,350
Zebra Calf	1	R4,450	R4,450
Bushbuck Ram	1	R5,350	R5,350
Kudu Cow	1	R7,300	R7,300
Total	29		R83,150

Table 1. Estimated value of donated carcasses taken from average auction price of each animal. Estimated average auction price per animal was calculated from the average selling prices from 10 auctions that took place in the Waterberg from May-August 2021.



Item	Cost
Guide Costs (Fee, uniform)	R8,160.00
Game Viewer Fuel	R3,627.75
Cold Room Rental	R5,000.00
Carcass Payment (once-off)	R400.00
Printing Costs	R654.05
Project Coordinator Costs (Salary, phone)	R12,766.67
WWDI Vehicle Fuel	R13,374.23
Operational Equipment Purchased	R2,883.20
Signage	R1,147.70
Insurance	R1,128.86
Total	R49,142.46

Table 3. Cost incurred to WWDI during the ecotourism operation (6.5 week period).

Item	Cost
Guide Fee	R8,050.00
Game Viewer Fuel	R3,627.75
Cold Room Rental	R5,000.00
Carcass Payment	R400.00
Printing Costs	R654.05
Total	R17,731.80

Table 4. Costs incurred to WWDI to facilitate the ecotourism operation to be remunerated. These costs are directly linked to operating the ecotourism operation and no gear or capital item costs are included.