



KRUGER2CANYON

NEWS

November 2023

The Farm House, R527, Zandspruit, Hoedspruit, Limpopo email: editor@kruger2canyon.co.za

The merge – Hoedspruit Farm Watch and Town Watch join forces



The power of collaboration Photo: Supplied Canva

Mark Bishop

The town of Hoedspruit is renowned as one of the safest towns in our country, and it is through the activities of both Farm Watch and Town Watch that bear testimony to this fact.

With the presence of two such prominent safety organisations in and around the town, each operating in a symbiotic relationship with the other, it was inevitable that these two organisations should merge under one umbrella. For the immediate fu-

ture this merged force will be known solely as Farm Watch.

Within the merge, which was made public on Wednesday, the 22nd November 2023, comes a myriad of services that complement each other, and unify the single organisation into a mega security and safety force whose prime aim is to secure, and ensure the safety of everyone in Hoedspruit and the surrounds. This merge cuts away any overlap services offered by the previous two organisations, and streamlines communication and reaction, making this a very potent and effective force.

The 'old' Farm Watch and Town Watch

Hoedspruit Farm Watch was started in 2009 in response to and as a result of increasing crop theft and the murder of one of the farmers on his farm. Initially it was primarily a patrol and visual presence organisation, but it soon became evident that there was a need for a properly structured Reaction Unit that would assist and work with SAPS to strengthen their hand and abilities in the ever-mounting occurrences of crime. The result is the very successful Reaction Unit that we all know today.

In 2019, Town Watch was set up with the

specific intention of focusing on patrols and security issues within town itself. Over the years Town Watch has also become a strong force to be reckoned with and are very proactive in monitoring and reporting events in town, from petty misdemeanours to serious crime.

The impact of the 'new' Farm Watch

The presence of this unified, highly trained, highly skilled, and well-structured organisation, working in unison with each other and the relevant authorities, enhances ...

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From the editors desk



Well, when you get to read this publication there will be exactly 30 days to Christmas! Where has this year gone? Having said that, there has been some great developments in Hoedspruit over these last eleven months – and let’s not forget our national heroes, ‘The Bokke’!

I happened to drive past the hospital building site on Sunday and I was amazed at the speedy progress being made. I trust that all the checks and balances are in place to ensure a quality build, and we all look forward to the opening in the very near future!

We have made an element of progress (albeit small) on the sewage crisis – but a step in the right direction it is. We owe

Marie Helm a great debt of gratitude for all her efforts in this arena.

As you read, Town Watch and Farm Watch have now joined forces – how fantastic that we have all these volunteers available to offer their time and efforts to securing our safety and our future.

We still await our dear friend Mike (our ‘bird man’) to appear out of the bush – wherever that might be. But patient we are, and we do expect some communication in the imminent future. It will be great to get back onto the learning curve that he so wonderfully set us upon.

We have received some accolades from higher places, people, and publications of far greater stature than the Kruger2Canyon News, that have praised us and showered compliments on us for the quality, subject matter, and journalistic standard that we have strived to attain. We are also seemingly the only community publication nationwide, that biases their focus on wildlife and conservation matters!

For that I would like to say that it is a team effort, and I would like to thank all contributors, designers, layout gurus (it’s far too complicated for me), helpers, publications that allow us to republish articles, and any-

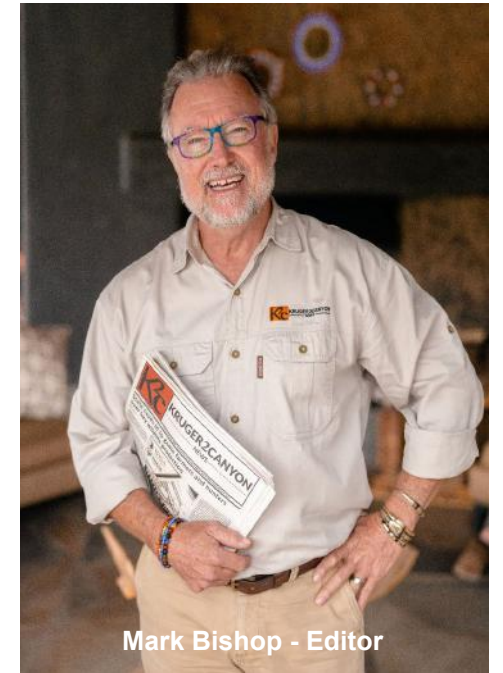
one else that makes this such a rewarding challenge every single month. We live on deadlines – what can I say – but the production of our publication easily trumps any ‘opposition’ out there.

We would never have been able to get to where we are if it were not for our advertisers, each-and-every single one of them. A special thank you must go out to our core advertisers. We would love every business in Hoedspruit to advertise in our publication, because that not only makes for a better publication and keeps it local, but it also ensures a sustainable publication. Rest assured advertising DOES work!

We have changed, and for the better – we live it, we feel it, and we see it. Next year I believe Kruger2Canyon News turns 24! That’s a feat in this game!

So as the festive season approaches at an ever-increasing pace, we need to be thankful for what we have, where we live and for our friends and family. We do live in a special piece of paradise, and we should do whatever we have to, to ensure that this remains so for years to come.

Roll on the holidays! Be safe!



Mark Bishop - Editor

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Reviving tourism post COVID-19: a new dawn for the travel industry

AI perspective ‘correspondent’

As the world emerges from the shadow of the COVID-19 pandemic, the tourism industry is facing an unprecedented challenge and an opportunity for rebirth. The pandemic has dramatically transformed the way we travel, with long-lasting effects on both tourists and the destinations they visit.

Safety First

One of the most significant changes in post COVID-19 tourism is a newfound emphasis on safety. Travelers are now more conscious than ever before about health and hygiene, and they expect destinations ensure their well-being. Consequently, governments and tourism boards worldwide have introduced stringent health and safety protocols to reassure travellers. These could include one or more of the regular sanitization, mask-wearing, social distancing, and vaccination requirements.

The rise of sustainable tourism

While the pandemic brought unprecedented challenges, it also shone a spotlight on the need for sustainable tourism. The temporary halt in international travel allowed many popular destinations to recover and heal from ‘over-tourism’. As tourism resumes, there’s a growing awareness of the need to protect and preserve the natural and cultural assets that draw visitors in the first place. Many tourists now opt for eco-friendly accommodations, supporting local artisans, and engaging in responsible travel practices.

New destinations on the horizon

The pandemic has forced travellers to seek

out lesser-known destinations, away from crowded hotspots. This shift has offered an opportunity for emerging destinations to shine. Countries and regions previously overshadowed by more famous neighbours are now benefiting from the wanderlust of tourists looking for unique experiences. It’s a chance to explore the hidden gems that may have remained off the radar in a pre-pandemic world.

Digital transformation

The digital transformation of the tourism industry was accelerated by the pandemic. From booking flights and accommodation, to accessing contactless payment options, technology has become an integral part of the travel experience. Mobile apps and websites are offering travellers real-time updates on health guidelines, weather, safety and more, allowing them to navigate their journeys with confidence.

Flexible booking and cancellation policies

Tourists have become more cautious when planning their trips due to the unpredictability of the pandemic. To address this, many businesses have introduced flexible booking and cancellation policies, allowing travellers to make changes without incurring heavy penalties. This increased flexibility gives tourists peace of mind, knowing they can adapt their plans if necessary.

Sustainable tourism practices

Sustainability is no longer a buzzword but a guiding principle for tourism post COVID-19. Many destinations are embracing green initiatives and reducing their carbon footprint. Eco-friendly transportation options, like electric buses and cycling tours,

are becoming popular. Travelers are encouraged to minimize their impact on the environment by reducing single-use plastics, supporting local conservation efforts, and practicing responsible wildlife tourism.

Cultural exchange and local engagement

Travelers are increasingly interested in meaningful cultural exchanges and engaging with local communities. Many are seeking authentic experiences, such as home stays and cooking classes, which allow them to connect with the local culture. Supporting small, local businesses and participating in community projects have become essential aspects of the post-pandemic travel experience.

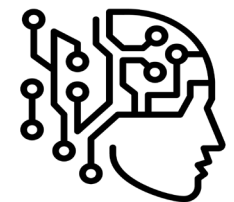
The reimaged hospitality industry

The hospitality industry has undergone a transformation to cater to the changing needs of travellers. Hotels and resorts now prioritize spacious and well-ventilated rooms, contactless check-ins, and enhanced cleaning protocols. Additionally, the rise of remote work and the desire for longer stays have given rise to the concept of “workcations”, where people can work remotely while enjoying a change of scenery.

Health and wellness travel

The pandemic has underscored the importance of health and wellness, leading to a surge in wellness tourism. Travelers are increasingly seeking destinations that offer spa retreats, outdoor activities, and mindfulness programs. This shift reflects a greater awareness of the need to balance physical and mental well-being.

Reconnecting with nature



The pandemic has reinforced the therapeutic value of nature, and many tourists are now seeking destinations that offer outdoor activities, from hiking and camping to wildlife safaris. The post COVID-19 travel trend is about reconnecting with the natural world and enjoying the serenity and healing properties it offers.

And so....

Without doubt, the COVID-19 pandemic has redefined the tourism industry. It has ushered in an era of conscious and responsible travel, emphasizing safety, sustainability, and meaningful experiences. As the world adapts to the “new normal,” tourists and destinations alike have the opportunity to emerge stronger, with a renewed focus on preserving the beauty of our planet and promoting the well-being of all travellers. Travel, post-pandemic, is not just about visiting new places; it’s about evolving the way we explore, connect, and experience the world.

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The long and windy road to try and get justice – the unsolved sewage problem in Hoedspruit

Investigative Correspondent

After very careful consideration, and unjustified frustration that was brought about by the total lack of effort and enterprise by the Mopani District Municipality (MDM), in any sort of attempt at solving the dire sewage problem in Hoedspruit, the DA finally laid criminal charges against the MDM at the Hoedspruit SAPS.

The charges (related to possible criminal offences) were levelled at certain members of the MDM for their disregard of provisions within the legislation of the National Water Act, the Water Services Act, and the National Environmental Management Act.

Those implicated were: the Municipal Manager Mr Tshepo Mogano, the Senior Manager Technical Services Mr Ludic Mahayi, the Chief Financial Officer Ms Sibongile Mathebula, and the Senior Manager Water and Sanitation Mr Paradise Shilowa.

This saga goes back to the sewage spillage (as previously reported in Kruger2Canyon News) from the Leguan Street pump station that spilled at least, if not more, than 15 million litres of sewage into Raptors View Wildlife Estate. This affected the wetlands, dams, and streams – not to mention the wildlife, residents and the scholars at Southern Cross School, and posed the serious prospect of pathogen contamination. The municipality was made aware of this particular (ongoing) incident on or about the 9th September 2023, and failed to make an attempt at rectifying the problem until the 21st September 2023.

The MDM has known about the numerous problems faced by Hoedspruit and its sew-

age for many years, but have failed or quite simply ignored, trying to find an adequate, long-term solution to the problem. Let it be said that Maruleng Local Municipality (MLM) have also been made aware of these issues on an ongoing basis for a very long time. In fact they were advised earlier this year of this particular problem by the Hoedspruit Chamber, and the matter was also raised with the municipal Director of Technical Services, Mr Lesley Morua. However, the default answer from the municipality is that “the problem has been reported, and feedback will be given”. This has never happened, and continual attempts at calling the relevant persons are ignored.

This recent spill resulted in a serious health and environmental crisis, and it was effectively the ‘straw that broke the camel’s back’, which has resulted in the above charges being laid.

The charge sheet was supported by an in-depth report on the analysis of water samples taken by the ENDIP Wildlife Laboratory, in Phalaborwa, and signed off by Dr C Vermaak.

However, despite numerous attempts to open a case against MDM, the Hoedspruit SAPS were reluctant to do so.

The DA did not rest on its laurels and persisted by then reporting Hoedspruit SAPS to the Limpopo Service Complaint Centre, for refusing to open a case against the MDM over the sewage spill.

The DA asked the Limpopo Service Complaint Centre, to investigate and provide reasons for the refusal by Hoedspruit SAPS to open a criminal case against the MDM. This was brought about in light of the fact that on the 28th of

September the Hoedspruit SAPS claimed that they could not open a case because the affidavit did not contain any offence, despite the document including references to the applicable sections in the various laws. Then on the 29th of September SAPS were again presented with the affidavit accompanied by sections of the National Water Act as well as the National Environmental Management Act, that state quite clearly that raw sewage pollution is a criminal offense – Hoedspruit SAPS still refused to open a criminal case.

The SAPS in Hoedspruit persisted in their refusal without providing valid reasons, and eventually, and reluctantly, said that they would open “an enquiry” but would not open a criminal case, stating that they didn’t have the “code” needed for the “system” to produce a case number!

It is every community’s right to deserve optimal service delivery from the SAPS and they must accept all valid criminal complaints and investigate them in a transparent and fair manner.

Thankfully the DA continued to exert pressure on Hoedspruit SAPS.

Finally on the 19th October, 2023, the DA was informed that a case was in fact being opened and was also advised of the name of the investigating officer. The investigating officer indicated that he had already visited the offices of the MDM and had requested the municipality to arrange a meeting so that he could obtain the declarations from implicated officials.

Officials from the Department of Water and Sanitation (DWS) found that “The investigation further confirmed that the containment

of raw sewage within the pump station for disposal at Drakensig Wastewater Treatment Works (WWTWs) which trigger section 21(g) of NWA, was commenced without authorisation”. It was therefore urgent to hold the municipality to account and enforce the applicable laws.

The rehabilitation of the environment must be done urgently by the municipality, and the Home Owners Association of the Raptors View Wildlife Estate should receive compensation for the emergency rehabilitation that they initiated on the estate. The emergency rehabilitation was done to prevent serious illness due to the raw sewage spillage, and to prevent further water, ground water and soil pollution.

In the meantime, another spill took place at the main gate of the Hoedspruit Air Force Base, which was so severe that the gate was closed for at least two weeks due to the shocking odour. The sanitation infrastructure within Hoedspruit is collapsing, primarily due to the total mismanagement, or lack of management by MDM, on a system that is vulnerable and inadequate.

Thankfully the DA will closely monitor developments around these sewage works to ensure that maintenance and repairs are done to the system and that there is rehabilitation of areas affected by the raw sewage.

Any queries, comments and the like can be directed to the DA Limpopo Deputy Leader Marie Helm on 082 683 2835, or the researcher, Moses Mariga on 076 821 9745.

Africa Wild Music Festival success !



Evening action under the stars and the Southern Cross Schools Drummers performing



Images supplied

The inaugural African Wild Music Festival took place at the Drakensig Primary School on the 11 November 2023. It was attended by a crowd of marginally under 1 900 Hoedspruit music enthusiasts. African Wild Entertainment (AWE), the event hosts had hoped for, and committed to, making this an annual event in Hoedspruit.

This year’s line-up included performances from three of the most celebrated South African artists including Prime Circle, Just Jinger and Jesse Clegg. The show was complemented by special

guest appearances by Jacaranda FM’s Martin Bester, and by the local talent of the Southern Cross School drummers. Revellers at the show had space to put up deck chairs, dance, the kids could play touch rugby, and food and drinks were in good supply. The amenities

were sufficient, and everyone had a fantastic evening of top end entertainment.

“Our ambition with the first event was to raise the bar in terms of live music performances in Hoedspruit, and to prove that events of this scale can work here,” said Guy Worthington, a principal partner of AWE. “For future events, our focus will be on driving tourist attendance and making Hoedspruit a credible destination location for entertainment into the future. We mean to be a positive contributor to the local economy, and to share the spectacular nature of our town with an all-new tourist segment.”

Kruger2Canyon News is proud to have participated as a media partner on the event, and when news breaks of future event plans, rest assured that Kruger2Canyon News will be there!

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The merge – Hoedspruit Farm Watch and Town Watch join forces

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..... enhances their ability which makes Hoedspruit unique and successful in this arena, when compared to other regions and towns.

This impact over the years has been based on pillars that really support and enhance the structure of the organisation – and they will continue to do so.

The pillars of success

The first pillar is membership. This includes the community of Hoedspruit, the residents of the town and the surrounds, and everyone who pays the monthly or annual membership donations is included in this group. They are all in communication through various action groups and will be kept up to date with quarterly reports and stats on what is happening in the greater area. It must be noted that each person that is a member of Farm Watch, that volunteers their services for duty of projects, receives no compensation for that which they perform.

The second pillar is the patrol group. The patrol group is made up of individuals that volunteer to go out each night and conduct visual patrols. This is a critical aspect in the fight against crime. It is important to remember that through these efforts there is little or no crime! Patrollers who are on duty each night patrol the streets of Hoedspruit, focusing on the residential areas and shopping areas within town. There are also those that patrol the outlying areas, farms, roads, stations, stores and the like.

The general mandate of the volunteers is to observe and report. This means that should any issues of concern be noted, the observer will assess the level of the threat. More minor issues are dealt with by one of the responsible security companies, whilst more serious threats or issues are dealt with by the reaction unit in conjunction with all necessary government services, if required.

The third pillar are the stopper groups. These groups consist of a mix of reaction unit members as well as a few additional patrol members. The stopper groups are all trained specifically on how to erect and run roadblocks and how to safely stop vehicles when needed.

One of the advantages in Hoedspruit is the ability to close the entire town down in a matter of minutes after an incident has occurred. This would only be done on instruction from the SAPS.

The next pillar, that being the fourth, is the reaction unit. This is the flagship pillar of Farm Watch and consists of men and women who are highly trained and skilled, properly equipped and adequately resourced, to respond to crime occurrences and potentially stop and detain suspects. It is the management and operations of this unit that make Hoedspruit the safety success that it is.

The fifth pillar is the intelligence unit. Hoedspruit Farm Watch is reportedly the only community organisation in the country with a properly established intelligence unit. The intelligence unit contributes to the entire crime fighting process at a totally different level and enables Farm Watch to move from a previously reactive force to a largely proactive force – they have the ability to get ahead of crimes. This unit also works in partnerships with specialist SAPS units such as SAPS Crime Intelligence Units, the Endangered Species Unit and The Hawks, and together with the reaction unit makes for a very powerful, potent, crime-fighting force.

The sixth pillar are the camera monitors. Part of the old Town Watch's success was the highly successful CCTV Camera project in Hoedspruit. All this infrastructure, with

the addition of Farm Watch's infrastructure, means that the town and surrounds are monitored 24/7 by a network of cameras covering all the major roads, intersections, residential areas, stations, farms, stores, and shopping centres. Most of the monitoring is done by trained community members.

This project has proven to be highly successful in the past and has gone a long way in both identifying criminals who are caught on camera, and identifying potential crimes and problems before they occur.

The seventh pillar, and a vitally important one is the victim support. This unit has been part of Hoedspruit Farm Watch from the very start. This unit's primary function was and still is focussed on assisting the victim/s on any scene. This goes a long way in helping to minimize major trauma experienced during a crime incident and helps in obtaining valuable information from a victim as quickly as possible. This can immediately lead to potential suspect identification and apprehension.

The unit is also there to see to the emotional well-being of all role players in a crime or traumatic incident including the reaction unit, SAPS, traffic officers and any other first responders that may require their help.

The unit has also taken on the role of looking after the well-being of the community during major events, such as running the 'humanitarian relief centre' during the 2012 floods and running the Hoedspruit feeding scheme during Covid.

Value-added services

Over and above all of this, the value-added services ensuring the safety and security of our community greatly enhance Farm Watch's abilities. These include the different levels of support and involvement by community members and the speciality groups that have been created to assist with necessary tasks during large operations.

The canine group consists of all handlers of K9's in the area, who are willing and able to assist with K9 support on a scene.

The air support group consists of all pilots in Hoedspruit who are willing to give air support (both fixed wing and rotor support) as and when required. Farm Watch have specially trained members and ground-to-air radios to enable suitable communication between air and ground teams.

The firefighting/'bakkie sakkie' group consists of anyone with a 'ready-to-go' fire-fighting unit or 'bakkie sakkie' that can help when needed to fight big fires. This activity is also supported by some of the estates within the greater Hoedspruit area.

The responders support group consists of a group of wives and ladies who are willing and able to provide and assist the responding teams during big operations by supplying vital food and water to the ground teams.

The fund raising group is a group that needs to be re-established and expanded to raise funds for the new Farm Watch.

The Hoedspruit Community Policing Forum (HCPF)

This is a totally new piece to the puzzle and a critical one at that. This forum is newly formed, and its principal focus and intention is to act as a liaison mechanism between the greater Hoedspruit community and SAPS. It thereby ensures (amongst others), that the correct levels of accountability from all parties is upheld, checks and balances of that interaction are in place and accounted for, and general feedback from the community to the local SAPS office is encouraged and upheld. The HCPF will meet with SAPS on a regular basis. This body will eventually become the mouthpiece of Farm Watch in the future.

The critical partnerships

Large contributing factors to Hoedspruit's success in this regard (security and safety) are the partnerships that have been forged. Farm Watch believes strongly in the importance of partnerships and working together. This also includes the important government services in town such as SAPS, both Maruleng and Limpopo Traffic Departments, the Fire Department and EMS. Farm Watch has identified the need to work together with these units for the benefit of the entire community.

There has also been a drive to get the well-established security companies in town to work together, to communicate and report to one another, respond to issues and incidents and if necessary, alert Farm Watch. This alliance between the security companies is unique in that they assist with camera monitoring on a 24/7 basis, work closely with the Hoedspruit community monitors and this has proven very successful in the leadup to the merge.

One of the inherent strengths of the 'system' is that surrounding communities have also been brought into the mix. There is collaboration with, amongst others, Ofcolaco, Gravelotte, Mica, Letsitelle, Phalaborwa, Tzaneen, Orighstad, The Oaks and Acornhoek – even as far as the Highveld. This makes the Farm Watch proactivity and effectiveness all that much more successful. Communication channels are open across the entire central Lowveld and further, so the correct information is relayed on to the correct people in quick time down the line – the threat can effectively be followed.

Communications

A modern digital radio network is made available to any paid-up member of the Farm Watch community. This gives the community member immediate 24/7 access to the Farm Watch emergency team. The two way radios have to be purchased by the individual community member, and will then be programmed to the correct channels. This has already proven to be successful, especially during load shedding when cell phone towers run out of battery capacity.

The community

The success and effectiveness of this whole structure can only be achieved with the support of the community. None of this would be possible without their input and involvement. There are many ways that the Hoedspruit community members can get involved in supporting Farm Watch, whether it be by paying monthly membership donations, doing nightly patrols, monitoring

of the cameras from home, organising fund raising events or joining one of the specialist groups (if you have the skills or resources to contribute). Every person's support helps in one way or another. Everyone is welcome.

Whilst the above structures are in place for the safety of our community, it must always be kept in mind that security starts at home. The obvious risk to having these security structures in place is that residents can and do become complacent. No security system is fool proof.

Discipline of the members

The sole reason for the existence of the new Farm Watch is to ensure that they keep property and residents safe. They are always exposed to the community. Their level of discipline is of a very high standard. Not adhering to this will trigger a disciplinary process and if required, a dismissal.

Going forward

It must be stressed and made quite clear, that nothing changes for the residents of the area. What does change is the efficacy of the organisation, the streamlining of processes and action, and the strength in unity, by bringing the two organisations together to serve and operate as one. It makes so much sense and credit must be given to both organisations and their respective boards, in acknowledging and accepting the big picture going forward.

If anyone wants to get positively involved, and is willing to take on responsibility, please contact Farm Watch in this regard.

Farm Watch Emergency numbers: MTN 072310032 (Calls and Whatsapp) : Vodacom 0720777132 (Calls only)
Farm Watch email address - hoedspruit-farmwatch@gmail.com
Hoedspruit CPF email address – hoedspruitCPF@gmail.com



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INSTRUCTIONS

Use the numbers 1 to 9 to complete the Sudoku. Only use each number once in each row, column and grid.

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N'TSIRI, GREATER KRUGER, BIG 5 R 5 500 000
Beds 3 | Bath 2 | Floor size: 120 m²

50 % Share - This is your perfect bush hide-away! N'tsiri Nature Reserve is a private use, 2 500 hectare Big Five reserve. Here wildlife roam freely across unfenced borders with Kruger National Park. Conduct your own game drives any time, day or night, in an open game viewer.

Yvette Thompson - 083 655 7176 Ref: 2174061



MAFUNYANE, KARONGWE R 12 000 000
Bedrooms 4 | Bathrooms 4 | Traverse: 8,000 ha

This property is stunning and has a wow factor that will take your breath away! Very exclusive, modern bush home, overlooking a seasonal river bed, located in a Big 5 reserve with 8,000 ha traverse. Sold furnished & including game viewer.

Rob Severin - 083 469 3820 Ref: 2107650



ELEPHANT ROCK ECO ESTATE R 650 000
Stand size: 2,400 m²

This elevated bushveld stand features lovely trees and views over the lowveld. The stand is located in the first phase of the development. Elephant Rock Eco Estate is 240 hectares in size with 125 stands. The estate is located approximately 30 minutes out of Hoedspruit on the R530.

Michelle Severin - 083 469 3821 Ref: 2152428



NDLOVUMZI R 5 200 000
Bedrooms 8 | Bathrooms 8 | Floor size: 480 m²

Set on 21 hectares and overlooking the Olifants River, this property offers four separate residential dwellings, the main unit has two downstairs bedrooms and three on the upper landing. There are three additional chalets, each of these overlooking the Olifants River

Jason Jones - 083 267 4794 Ref: 2151582



INGWELALA, BIG 5 GREATER KRUGER R 3 300 000
Traverse over 3,000 ha

50 % Share - This classic rondavel unit sleeps 8. It has 2 bedrooms, 2 bathrooms and the enclosed wrap-around veranda accommodates another 4 single beds. The unit is situated on the banks of the seasonal Nhlalalumi river. The open patio, firepit & braai area looks toward the riverbed.

Yvette Thompson - 083 655 7176 Ref: 2187783



MODITLO WILDLIFE ESTATE, BIG 4 R 5 500 000
Beds 3 | Baths 2 | Floor: 242 m²

The house is set amongst large Jackalberry trees, on the bank of a dry riverbed. The seamless flow from indoor to outdoor living is evident in the dining and lounge areas, which lead to a covered patio. From the pool deck and boma one can take in the beautiful views. Backup inverter is installed.

Yvette Thompson - 083 655 7176 Ref: 2173366



BLYDE WILDLIFE ESTATE R 4 324 000
Bedrooms 3 | Bathrooms 3 | Floor size: 360 m²

This home is privately situated and overlooks the wilderness area. The layout includes open plan kitchen, living and dining room as well as a separate scullery and a separate laundry. The living area and bedrooms all lead out to the large, covered patio with pool and elevated views.

Jason Jones - 083 267 4794 Ref: 2143428



RAPTOR'S VIEW WILDLIFE ESTATE R 5 300 000
Beds 3 | Baths 3.5 | Floor: 396 m²

Architect-designed home boasting unique character not typically found in Raptors View. Notable features include a new thatch roof, fresh paint, updated light fixtures, and a rentable chalet complete with a bedroom, kitchenette, and bathroom. VAT inclusive, no transfer duty applicable.

Rob Severin - 083 469 3820 Ref: 2194742



NDLOVUMZI R 4 458 000
Bedrooms 4 | Bathrooms 4 | Floor size: 300 m²

This tranquil home's is situated overlooking the Olifants River and is surrounded by large riverine trees and rocky outcrops. The open plan living, dining and newly fitted kitchen are all under high vaulted ceilings that make this home light and bright and there is also a separate scullery.

Jason Jones - 083 267 4794 Ref: 2152063



KHAYA NDLOVU GAME RESERVE, BIG 4 R 3 250 000
Stand size: 1 ha

This beautiful river site is the ideal blank canvas for you to design and build your dream bush home. The stand is set between large riverine trees on the edge of the seasonal Sandspruit river, in the exclusive Khaya Ndlovu, a low density residential reserve with only 35 stands on 1,307 ha.

Yvette Thompson - 083 655 7176 Ref: 2154781



SELF-CATERING GUEST HOUSE, HOEDSPRUIT R 5 690 000
Beds 7 | Baths 7

The owner's home has a kitchen, family room and private braai area. 6 Guest bedrooms are located around a central pool area and surrounded by an established garden. A communal lapa provides braai and kitchen facilities for the guests. The sale includes all fittings & furniture for guest house.

Colleen Berrange - 083 468 2338 Ref: 2194726



BLYDE WILDLIFE ESTATE R 3 500 000
Bedrooms 2 | Bathrooms 2 | Floor size: 250 m²

Privately located deep in the estate. This home is modern and low maintenance. The large open plan living area comprises lounge and kitchen with separate scullery and courtyard. Aluminium stacking doors lead to the patio and bar/braai area. Steps lead down to the pool and boma area.

Michelle Severin - 083 469 3821 Ref: 2185174



COMMERCIAL LODGE R 11 000 000
Beds 8 | Baths 8 | Floor: 980 m² | Land size: 21 ha

This lodge consists of a main owner's house, central lodge area and 5 luxury treetop chalets. Sold as a going concern; this lodge has bounced back after Covid and has great potential. There are future bookings and well-trained staff. Movable items and furniture included, as well as a bakkie.

Rob Severin - 083 469 3820 Ref: 2160187



KARONGWE - BIG 5 R 7 495 000
Bedrooms 4 | Bathrooms 4 | Traverse: 8,000 ha

Be one of 14 private owners within Karongwe Nature Reserve, which offers pristine game viewing with 4 seasonal river systems. The home is situated on a dry riverbed and comes fully furnished. A Harvey tile roof for lower maintenance costs. Low reserve levies.

Rob Severin - 083 469 3820 Ref: 2063307



MAHLATHINI RESERVE, PHALABORWA R 4 500 000
Beds 3 | Baths 3 | Floor: 479 m²

This stunning home on a full title 21 ha stand is located adjacent to the Kruger National Park and is surrounded by beautiful bushveld, various plains game, eland, ostriches and the occasional elephants. Ideal to be used as a holiday home or for permanent living.

Colleen Berrange - 083 468 2338 Ref: 2143562



RAPTOR'S VIEW WILDLIFE ESTATE R 6 300 000
Beds 4 | Baths 3 | Floor size: 427 m²

Large family home ideally located within the estate. The modern open plan living area leads out to a covered entertainment area with patio, pool & boma from where you can enjoy the mountain view. There is also a 2-bedroom cottage which is currently rented out for R11,000 per month.

Michelle Severin - 083 469 3821 Ref: 2176826

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Courgette & cheese fritters with spicy tomato salsa

Veggie Diva

This month we are doing a short, sharp and sweet, delicious recipe that you can rattle together in no time. Have fun and enjoy!

Tomato salsa

1 x punnet cherry tomatoes cut in half
1 x red chilli
½ tsp white wine vinegar

Combine all ingredients into a pot season with salt and pepper and simmer for 5 minutes until the tomatoes are soft and falling out of their skins.

Courgette and cheese fritters

4 medium or 8 small courgettes, grated
2 x eggs beaten
A third of a cup grated cheese (cheddar or parmesan)
½ red onion finely chopped or grated
½ cup chickpea flour
Salt and pepper
Olive oil for frying
Coriander chopped for serving

Combine all the ingredients. The mixture will be quite wet. Heat a table spoon of olive oil and fry dollops of the mixture at a medium heat so they cook through. Cook for 4-5 minutes each side until golden brown.

Serve warm with the salsa and a good sprinkle of chopped coriander. I have served my fritters with a grilled garlic black mushroom on top, and roasted broccoli stems on the side. Beautiful, appetising and delicious!



Picky View



A spread to die for and the most spectacular view and setting



AE

Hello lovely people of Hoedspruit. I have been away for a while, savouring delicacies in the fair Cape. It was good eating, quaffing good pale-yellow stock, and basically relaxing and having a good time.

I must say that the culinary fare in and around Cape Town is quite magnificent. Yes, there are those spots that fail to dazzle, but on the whole, it was a great adventure.

The cream of the crop for me though, was a restaurant in Camps Bay called the Codfather Seafood and Sushi. If you are into fish – this is the spot you need to get to. It is off the charts amazing; and the sushi – well, I have never in all my culinary escapades had sushi quite like I had at the Codfather. Well done to them – exemplary service and outstanding food, and a ‘must visit’!

But back to Hoedies.... I ventured out of Hoedspruit the other weekend to sample a simple lunch at Ya Mati. What a setting, but sadly although the sign at the gate said “Open for Lunch” the kitchen was closed as they were preparing for a wedding the next day. The group was disappointed, and although we pleaded for a possible simple toasted sandwich to be made, the kitchen would have nothing of it, and we turned tail and very disappointingly headed back towards town.

Someone in the group suggested we visit The Ultimate Mango Shop at Mohlatse, which we would pass on our way back to town. It was not very far down the road when we turned onto the farm – you can’t miss it, there is a large mango (cut-out) logo very visible from the road. The drive from the road takes about 5 minutes through the mango orchards and then you come across this little shop that sells everything mango and more. There is a great variety of goodies that you can buy at the store, jams, chutneys, chillies, olives, the list goes on and 95% are super edible and delicious!

There are beautiful lawns in front of the shop and a play area for kids off to the right. The view is over the orchards and up into the Drakensberg Mountains.

Not thinking we would get anything to eat, save for some purchases of mango snacks, the question was posed as to what we could have for lunch as a snack – a long shot! To our surprise the lady behind the counter (to whom I apologise for not getting her name) said it was not a problem, they could do a cheese and biscuit spread with some other condiments if that would do?

We accepted and about 10 minutes later we were served with a serious cheese platter with biscuits and fruit! It was fabulous and we sat outside on the lawn and chomped our way through the platter. I cannot name all the cheeses, but we must have had at least five different types and a wonderful array of biscuits.

The only negative was that we couldn’t get a glass of wine – but hey, and impromptu cheese platter lunch with all the bells and whistles certainly made up for that.

The willingness of staff ‘to make a plan’ was amazing, and compliments to all at Mohlatse for a job well done. The farm is neat and tidy, clearly successful, and the little shop has so much to choose from: we walked away with a fully stacked paper bag of goodies.

Little gems like this have to be mentioned and it actually took us all by surprise. We had a thoroughly good afternoon and waddled back to the car, well satiated and a bunch of happy bunnies.

So, if you’re looking for something different, get into the car and drive for about 30 minutes and feast away. I do hope I have the number right: 072 937 9025.

New tax incentive might be just what's needed to save SA's threatened species



Jon Hrusa



Photo Colin Bell

The tax incentive allows any taxpayer safeguarding threatened ecosystems or species, like lions, to deduct all expenses related to their conservation efforts from taxable income

Julia Evans

The writing's on the wall: If we don't find innovative ways to channel finance into conservation, we will not be able to reverse the decline of our endangered species or meet our ambitious (but vital) international conservation commitments. And SA's first tax incentive for threatened species such as rhino, lion and endangered plants might just be the solution.

It's clear that if we are to achieve our goals for nature, we need to find innovative ways to increase finance available for conservation efforts – and that can't be done through government alone.

A new tax incentive, expected to unlock finance for conservation and maintenance of threatened species and ecosystems at R1,5 million a year, might be part of the solution to both reward citizens for conservation efforts and find better ways to save our species.

The Department of Forestry, Fisheries and the Environment (DFFE), with the Sustainable Finance Coalition, have activated the country's first tax incentive for threatened species.

The incentive for Threatened Species and Other Effective Area-based Conservation Measures (OECMs), allows any South African taxpayer (private landowners, as well as individual trusts or companies) who are safeguarding threatened ecosystems or species, to deduct all expenses related to their conservation efforts from their taxable income.

This comes at a time when state reserves are failing (faced with declining budgets, understaffing, and poaching), and about 60% of SA's national rhino population is in private hands (about 8 000 rhinos), according to estimates by the Private Rhino Owners Association.

"It's very expensive to look after a rhino or a lion. And a lot of the anti-poaching costs are the reason for how expensive the species are to safeguard," Candice Stevens, the chair of Africa's Sustainable Finance Coalition told Daily Maverick in June, when the DFFE was poised to take this incentive to scale.

"So this tax incentive allows those management costs to be deducted in an extraordinary way and to alleviate the cost burden. And, essentially, reward a conservation commitment for threatened species."

First agreements signed

The tax incentive was first incubated by the coalition in 2020 and piloted by implementing partner, Wilderness Foundations Africa (WFA) through funding from the Rhino Recovery Fund in 2021 and 2022.

WFA CEO Andrew Muir said, "After the High-Level Panel Report in 2020, there was a strong sentiment that South Africa needed to do more to assist private citizens and communities owning and conserving rhino for future generations – this tax incentive does exactly that."

And now the incentive has been activated, with DFFE Minister Barbara Creecy signing biodiversity management agreements (BMAs) with three private rhino and lion owners in Limpopo, that are valid for five years.

"These agreements offer unique biodiversity tax incentives for the landowners in terms of the Income Tax Act," a DFFE statement said on Sunday, 12 November.

The DFFE explained that BMAs allow for a person, organisation, or organ of state to manage a species or ecosystem through approved biodiversity management plans in accordance with the National Environmental Management Biodiversity Agreement.

The landowners, who concluded the BMAs for the southern black rhino and the African lion, manage the species in open-system protected areas in Limpopo and are required to carry out numerous conservation-related measures and be responsible for any costs related to the management of the animals.

These conservation and management costs may be deducted through the associated tax incentive once all tax requirements are met.

The owners of the animals will also submit annual reports to the minister on the progress of the implementation of the BMAs.

How it works

"If you are involved in the conservation and maintenance of threatened species and ecosystems (for example rhino, lion, cycads, vultures and others) for which a BMP has been published, you may be eligible to access the tax deduction," explained Ellané van Wyk, lead for finance solution incubation and implementation for the coalition.

"Expenditure incurred in the conservation and maintenance of threatened species and ecosystems may then be deducted, examples of which may include, but are not limited to, alien-clearing, ranger salaries,



Albany cycad is a critically endangered species, having declined by more than 80 over the past 100 years

Image: BotBIn iNaturalist

security, veterinary expenses, or member levies contributing to the conservation and maintenance activities of management associations of areas."

Stevens said that, for example, there might be an Eastern Cape farmer who has endangered cycads on their farm and who pays for looking after these plants, even though it's not related to their actual job.

With this incentive, Stevens said this type of farmer could enter into an agreement with the government, which has "a biodiversity management plan for cycads that has gazetted the very best science and conservation action to protect our last cycad populations".

By signing a BMA with the minister, Stevens explained that the farmer would be contractually obliged to fulfil specially listed conservation actions for five years, such as "having a guard to watch over the cycads and stop the threat of illegal poaching (which also creates a green job), ensuring that no invasive plants like prickly pear encroach on the cycads, reporting on the health of the cycads to Sanbi, etc".

"As a reward for this conservation commitment, [the farmer] can deduct the expenses linked to those actions from their taxable income and thus save paying so much tax, and have more cash in pocket," said Stevens.

Dual impact

Not only do we need unique and dynamic solutions like this to protect endangered species, but we need them if we're going to reach the ambitious but necessary conservation goals that we committed to at the last UN Biodiversity Conference (COP15).

In December 2022, in Montreal, Canada, South Africa signed the pivotal Kunming-Montreal Global Biodiversity Framework at COP15, committing us (and 195 other nations) to implement 23 targets by 2030 in an effort to halt biodiversity loss.

The headline target – 30 x 30 – aims to

effectively conserve at least 30% of the world's lands, freshwater and oceans by 2030, while also respecting the rights and contributions of indigenous peoples and local communities.

Currently, 16,7% of land in South Africa is under conservation.

"If we want to hit the target by 2030, we'll need another 16 million hectares to be added to the estate. That's adding [the equivalent of] the Kruger National Park and a bit every year to hit the 2030 target," said Karl Naude, the Director of Protected Area Planning at the DFFE.

Stevens previously explained to Daily Maverick that if we are going to reach the ambitious targets, "We are going to require a considerably large amount of sustainable finance ... finance beyond the traditional donor and grant funding sectors to bring in the private sector as well as align incentives."

Mohlago Flora Mokgohloa, the Deputy Director-General of the DFFE's biodiversity and conservation branch, agreed that the government will never find enough money to buy private land for new reserves, and thus would need to find ways to further incentivise landowners to protect their land and the species that inhabit them.

"Not only does this tax incentive provide a finance solution for conservation in South Africa, but it simultaneously creates a Candidate OECM, contributing to our national 30 x 30 goals," said Stevens.

"It has a dual impact on conservation and finance."

Daniel Marnewick, regional area-based conservation coordinator for the International Union for the Conservation of Nature, explained that OECMs [Other Effective Area-based Conservation Measures] are sites that are not formal protected areas but still deliver area-based conservation, and have effective management and equitable governance in place to deliver long-term sustainable conservation of biodiversity.

He explained that OECMs are unique as they include sites outside the traditional protected area networks, whose main objective might not be conservation (it could be tourism or community rangeland livestock farming, rural academic research facilities, botanical gardens, for example) – but can be measured toward our conservation goals (helping us reach 30 x 30).

Stevens explained that this tax incentive benefits South African citizens who are safeguarding these species that don't necessarily live within protected areas and are incurring management costs as a result.

"Our ability as South Africans to innovate around finance for nature, particularly with tax incentives is already world-renowned, and this novel incentive gives us one more finance tool for our biodiversity-rich country," reflected Stevens.

"It is a testament to our pioneering spirit to find solutions no matter the challenge, and to effectively collaborate across public, private and civic sectors."

This article was previously published in the Daily Maverick

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How to beat eco-paralysis:



Namibian environmental activist, Reinhold Mangundu, opened a Tipping Points webinar, “New Voices for Africa” with poetic lines: “As guardians of earth space, we are gathered in a compassionate space where we all have hearts alight like the stars in the night, illuminating a path where we can all see our future as bright” - Photo Supplied

Savannah Burns and Skyla Thornton for Roving Reporters

It’s easy to be laid low by all that ails our planet. But the cure lies in taking incremental steps, celebrating small wins and building on them.

Don’t – a certain psychotherapist and motivational writer famously tells us – sweat the small stuff.

A little perspective can see off a mountain of personal pain.

That said, it doesn’t necessarily follow that we should make light of our achievements, especially in tackling enormous environmental challenges confronting us today.

“Problems at hand that we face can seem so big and overwhelming, it seems so unattainable to make any kind of meaningful change sometimes. But we have to keep up the energy and make the small changes that cumulatively can bring about big changes,” says Rio Button. “Working with young people, it is important to celebrate the small stuff that maintains the enthusiasm of the movement or project.”

Button, a 28-year-old marine biologist and environmental writer, was speaking at a “Tipping Points” webinar organised by Oppenheimer Generations Research and Conservation to mark Youth Month in South Africa.

New voices

Also on the panel were Reinhold Mangundu, the co-chairman of the Namibia Environment and Wildlife Society, and Karabo Mokoena, a community and environmental activist with a special interest in water.

Nox Ntshaba, head of communications at Oppenheimer Generations, facilitated the meeting.

Button, whose interests include marine protected areas, responsible fisheries, and youth journalism, said working with young people to make changes in conservation, presented an “amazing opportunity”.

“The youth must not be disheartened because the climate crisis is huge and overwhelming. We must not be paralyzed

into not doing anything at all,” said Button.

Antidote

The antidote to paralysis lay in “inspiring and nurturing a love of learning and a passion for conservation” among young people. And we must create space for the youth, while listening, supporting, and mentoring them, she said.

Mangundu took a similar line to Button on how we might face up to an uncertain future. “If we all take small incremental steps, with every bit of hope and love in our hearts then we will be able to transform our communities, because in the end our future depends on our collective efforts, and we are called to come together and weave together that fabric of humanity,” he said.

But Mangundu noted there were precious few young people in political structures and decision-making processes in his native Namibia and this had consequences for the environment.



Empathy for people and nature inspires Rio Button’s science communication which has included TV and radio appearances and her articles being published in national newspapers, including Daily Maverick - Photo courtesy of the Espresso Show, Cape Talk.

“Our African politicians suffer from a syndrome of economic growth without taking sustainability into consideration. This affects them in the way that they don’t take young people seriously,” he said, adding that the regeneration of the continent required a change in thinking.

Change

“Young people in schools are being taught to pronounce words such as ‘industrialisation’. These kinds of words are unfriendly to a planet that is running out of resources,” he said. “Unless we redefine what we mean by growth, we’ll keep on supporting systems of extraction and destruction. “We need to look at alternatives,” said Mangundu.

Mangundu felt that for too long young people were only dimly aware of the power they held as a “potent force for change”. Happily, though, this was shifting.

“Young people have been mobilising in the past two years to speak against ex-

tractive companies exploring for oil and gas in [Namibia’s] most sensitive areas, but we have been labelled as climate hooligans and as anti-development activists,” he said.

Cleaner energy

Mokoena, a 29-year-old natural scientist is a strong advocate for involving young scientists in driving an energy revolution for a greener future, lessening the dependency on coal powered energy plants.

As a member of the South Africa Youth Parliament for Water, Mokoena has been instrumental in developing a “Water Action Plan” on how government could tackle the current water and sanitation crisis in South Africa. These recommendations were tabled at the United Nations Water Conference in New York in March.

Skills and innovation

Mokoena reminded the webinar that unemployment was a big problem in South Africa, especially among the youth.

She stressed that people in marginalised communities were very capable of innovation and wants to see a shift from dependency on the formal workplace to job creation through entrepreneurship.

This, she said, required that young professionals be recognised for their skills, and “not just as youth”.

“And we should be allowed to take seats at the big tables and take part in policy and decision-making,” added Mokoena. “Having a seat at the table means that at every stage of the decision-making process, you have one or two youth representatives who are specialists in that field. Having us there brings a different narrative, a different perspective.”

Role swapping

In Namibia, Mangundu is involved in a host of projects. For his recent master’s degree in sustainable development, he explored how participatory games might be used for experiential learning, to help people respond to the difficulties Namibia faces in meeting its sustainable development goals.

Cont. on page 9

Lessons from young leaders



27-year-old, Reinhold Mangundu, is a vocal opponent of oil exploration in the Okavango Delta
Photo Supplied

Cont. from page 8

Today he helps runs role-switching games with nearly 1 000 participants in Namibia and South Africa, supported by the Hanns Seidel Foundation.

“We are able to bring different diverse groups together, including community leaders, students, young professionals and policy makers. They step outside their normal biases, and together, collaborate to find creative alternatives to deal with complex problems,” said Mangundu.

“For example, we make the politicians a young person at school, and then you give the power to the young person... with certain rules and conditions,” said Mangundu

In this transformative space young people “can co-create and navigate alternatives for our common future,” he said.

Ecosystems approach

Button said a similar approach had been used by the Responsible Fisheries Alliance in creating “safe platforms” to discuss an ecosystems approach to fisheries.

“They put us in a room. Scientists, fishermen, and fisheries monitors. They gave us some prompts and activities. We learned so much from each other. Information flowed in all directions.”

“Fishermen could share what was really happening at sea and open up about how regulations can be cheated. Scientists could answer questions, like: Why do we need sharks? Why they are important for our ecosystem? And monitors had the opportunities to show the unique challenges they face.”

Button said there was also great value in fostering the writing talents of young scientists to promote greater awareness of environmental concerns.

She has written and co-authored more than a dozen biodiversity-related stories for the Daily Maverick and served as an ambassador for the WESSA’s Young Reporters for Environment.

Networks

Writing for the media, she said, had broadened her networks, and introduced her to a fascinating array of people and mentors who had helped along her journey as an early-career scientist. And she

sure does get around. Earlier this year, she helped set up Protected Areas in Saudi Arabia. Some months ago, she got back from Somaliland where she worked as a camera assistant and commercial diver at Africa’s newest marine protected area. Now she’s off to Brisbane to begin a PhD – “a new degree, in a new place, a new academic system – all very different to what I have done before.”

But studying abroad, she said, does not mean she will not be back in Africa, taking on the mantle of a mentor in the same way others have empowered and inspired her. – *Additional reporting, Alexandra Howard.*

Howard is completing with a PhD in zoology at the University of the Free State. Skyla Thornton is studying Earth Sciences at Stellenbosch University. Savannah Burns is a freelance writer and ambassador for WESSA’s Young Reporters for the Environment programme on the lower South Coast of KwaZulu-Natal.

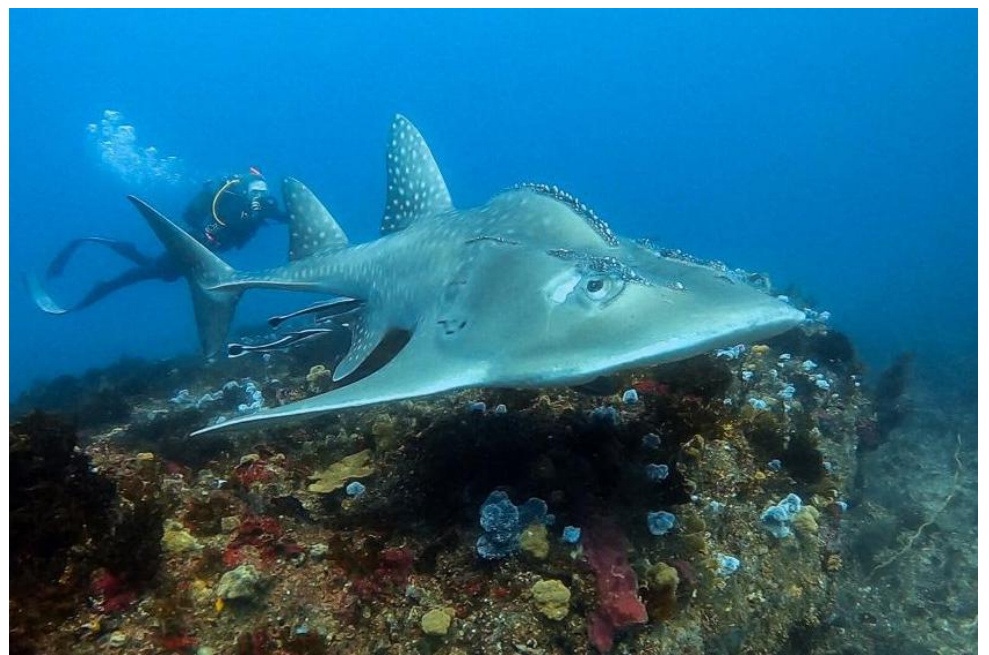
This story was produced with support from Roving Reporters’ New Narratives project – a journalism training initiative developed in partnership with science communication specialists, Jive Media Africa.



Karabo Mokoena, (29) recently completed her MSc degree in Animal, Plant and Environmental Science, with distinction, at the University of the Witwatersrand, specialising in phycology
Photo supplied



Rio Button uses a telemetry receiver to track radio collared black-footed cats in the Kalahari. Curiosity and an awe for wild spaces inspires her work
Photo Michelle Schroeder



While helping with an underwater research project in Zavora, Mozambique, Rio Button spent time with one of her favourite ocean creatures, the critically endangered bowmouth guitarfish
Image supplied

SUDOKU

ANSWERS

1	3	6	5	2	4	7	9	8
8	9	5	3	6	7	1	2	4
7	2	4	9	8	1	3	5	6
5	8	3	6	4	9	2	7	1
2	6	1	8	7	3	9	4	5
4	7	9	1	5	2	6	8	3
6	4	2	7	1	8	5	3	9
9	5	7	4	3	6	8	1	2
3	1	8	2	9	5	4	6	7

Eyes in the sky

Ben Coley

For over 25 years, the world has marvelled at the images and insights provided by the Hubble Space Telescope. Its discoveries have literally changed our understanding of the cosmos and the origins of the Universe. In 2022, Hubble's successor, the James Webb Space Telescope (JWST) sent back its first images and once again has humbled our knowledge and expectations of what resides in the seemingly infinite darkness of space and time. If Hubble's legacy is anything to go by, Webb promises to unlock many more secrets during its lifetime.

These telescopes have taken the lime-light for many years thanks to the utterly spectacular images that they, and their imaging team, have provided. The kaleidoscopic colours and mesmerising patterns of cosmic events offer the perfect synergy to our social media dominated age, where 'likes' and 'followers' are the new currency. But these two mirrored behemoths are not the only eyes in the sky.

Light is electromagnetic energy in the form of waves and it is the wavelength, the distance between the peaks, that dictate the type of energy produced. The electro-magnetic spectrum ranges from incredibly short wavelengths, known as gamma rays, through x-rays and ultra violet (UV) rays, before reaching the visible light that we can detect. As the wavelength increases, it moves through infrared (IR), to microwaves and finally to radio waves.

At this moment, there are around 30 telescopes orbiting the Earth at various heights above its surface. It is unfortunate that the media-controlled world we live in dictates which of these incredible optical marvels achieves notoriety. Telescopes capture light, but light comes in various forms, not all of which create beautiful images that our primitive eyes can appreciate.

Many objects in space give off the majority of their information in these non-visible spectrums of light energy, and thus many telescopes are designed to only capture those specific wavelengths.

Here are 4 current space telescopes, in addition to Hubble and Webb, that are providing scientists and astronomers with ground-breaking data, enabling us to unravel the dark secrets of the Universe.

The Chandra X-Ray Observatory

Launched in 1999, the Chandra X-Ray Observatory orbits Earth on an eccentric plane that sees its distance from our planet range from 16 000kms to over 130 000kms, or more than a third of the distance to the Moon. Originally only planned to operate for 5 years, Chandra, like Hubble, has massively exceeded its predicted lifespan, and is still sending back information today. Its 1,2m mirror is specialised in capturing x-rays given off by incredibly hot and energetic objects.

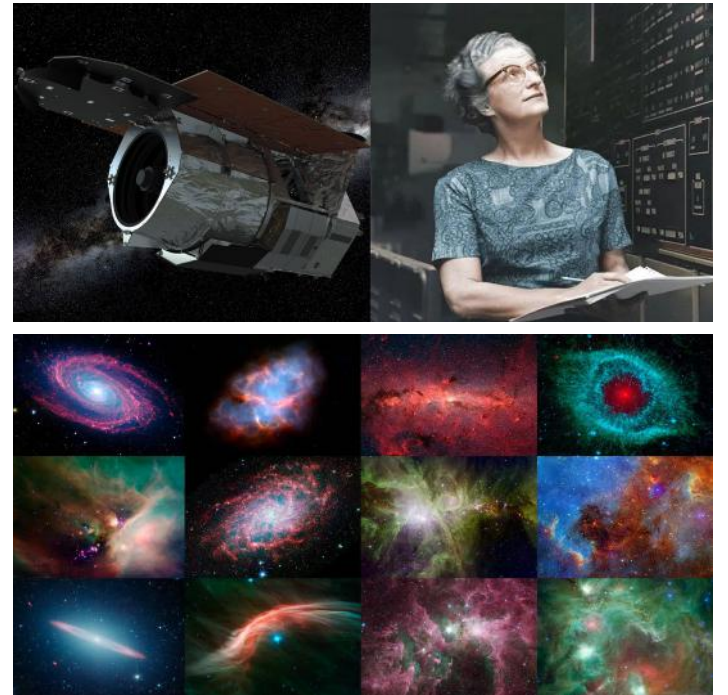
To date, Chandra has helped astronomers see massive young stars developing inside the great Orion Nebula, discovered a new type of black hole, unravelled the chemistry of supernova remnants like the Crab Nebula in Taurus, and witnessed the catastrophic merger of galaxies.

TESS (Transiting Exoplanet Survey Satellite)

The Kepler space telescope operated from 2009 to 2018 before it was replaced by the more advanced TESS. Whereas Kepler was a general-purpose planetary finder, TESS is designed to scour the stars of our galactic neighbourhood for Earth-like exoplanets. Its sensitive camera monitors starlight for tell-tale peaks and dips in its brightness caused when an object passes (transits) between it and the camera. By monitoring the extent

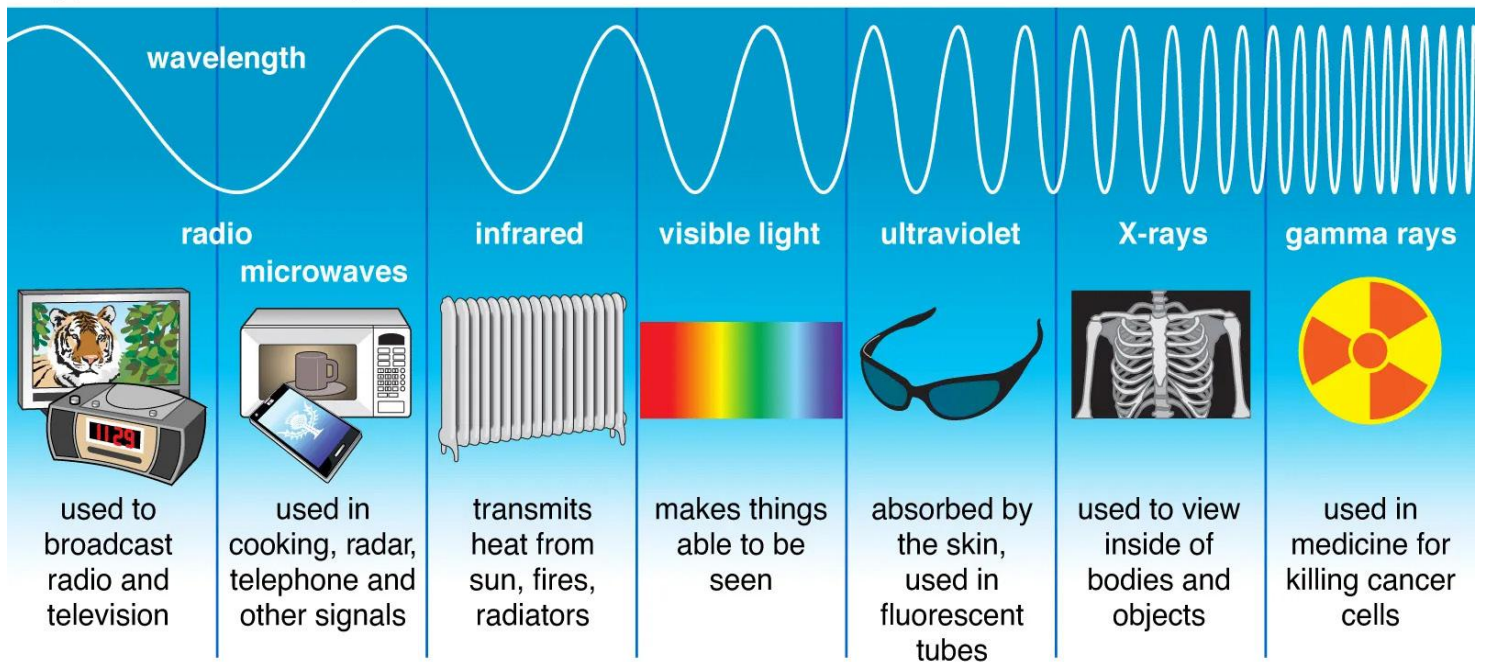


Chandra Image of the Crab Nebula



Nancy Roman and the Nancy Roman Telescope (top) and Spitzer Telescope Infrared Images (above)

Types of Electromagnetic Radiation



and duration of these dips, the size and orbit of these new worlds can be understood. We can then use other telescopes such as Webb to fully reveal their information and ascertain their conditions for habitable life.

During its 10 year reign, Kepler identified over 2 500 exoplanets, and to date, TESS has revealed 329, with thousands more still to be verified. It has found 'ultra-hot' planets that orbit their stars in a matter of days, 'super earths' five times larger than our own, multiple planetary systems and a Neptune-sized world orbiting two stars.

Spitzer Space Telescope

Like JWST, Spitzer was built to see in the infrared spectrum, in other words, seeing heat given off by objects that do not exhibit visible wavelengths of light. In addition to this, infrared also allows Spitzer to peer through great clouds of dust and gas, to image objects that would otherwise be obscured.

It was launched in 2003 sporting a 34 inch mirror and a liquid helium cooling system to ensure that its own body heat did not interfere with its observations (JWST achieves this by means of its tennis court sized solar shield and by being over 1 million kms from Earth). Spitzer was officially retired by NASA in 2020 but its data is still providing new and incredible insights in the depths of the Universe.

Spitzer's accolades are many, but some of its highlights include recording the first light of an extra-solar planet and mapping the weather within its atmosphere, detecting a new ring around Saturn and in 2016, it found the most distant galaxy ever recorded at the time. Its most famous discovery occurred in 2017 when it found the Trappist-1 system: 7 earth-sized planets orbiting a single star

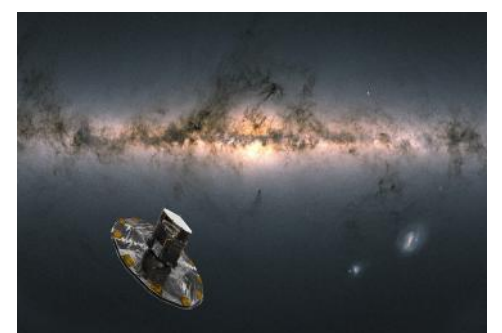
TESS BY THE NUMBERS

- 329 EXOPLANETS CONFIRMED
- 4,300+ EXOPLANET CANDIDATES
- 1,500 RESEARCH PAPERS
- 93 percent of sky OBSERVED
- 5 years IN SPACE
- 251 TERABYTES OF IMAGE DATA
- 467,768 OBJECTS OBSERVED AT HIGH PRECISION
- 50 nations contributing SCIENCE

As of April 2023

Gaia Space Telescope

Gaia is named after the Greek goddess of the Earth. Unlike the aforementioned telescopes, Gaia was not built to visualise the details of the cosmos, but rather to understand our position within it. Its main role is map the distance, position and motion of stars with an unprecedented precision. To date, Gaia has recorded data on over 1,7 billion objects including stars, comets, asteroids and exoplanets. Its ultimate goal is to create a 3D map of the Milky Way to better understand its origin and subsequent evolution.



TESS Space Telescope facts (top) and Gaia - its 3D map of the Milky Way (above)

Nancy Grace Roman Space Telescope

NASA's newest astronomical observatory is scheduled to launch in early 2027 and will view the cosmos in infrared with its 2,3m diameter mirror. This is the same size as Hubble, but will be capable of far better resolution and has a vastly superior field of view, allowing much greater swathes of space to be viewed. It is named after Nancy Roman, NASA's first chief astronomer from

1961-1963, often called the Mother of Hubble, thanks to her work in laying the foundations for Hubble's inception.

The telescope has multiple mission goals including examining distant supernovae and exoplanets, but its primary function is to understand more about dark matter, dark energy, and the expansion of the Universe. It aims to measure the light from over a billion galaxies during its five-and-a-half year operation time.

More on ant-loving butterflies!

Steven Woodhall

It was mentioned that after my last article, readers wanted to know more about butterflies that live with ants. Or more broadly, non-plant feeding lepidoptera!

This kind of behaviour is widespread; butterflies (and moths) are not all cute little herbivores like everyone thinks they are. The association of Lycaenidae, or 'gossamer-winged' butterflies with ants probably goes back 50 - 60 million years, when the family split from the main 'butterfly' lineage – as DNA studies tell us. By then, ants had already been on the scene for around 100 million years. Many ants are predators, as are most insects if it comes to that.

The world has undergone massive changes since then, and butterflies have been scattered all over the globe by continental drift. We find ant associated Lycaenidae all over the world. Europe has them – in fact the behaviour was first discovered in England at the beginning of the 20th century. America has them too. They are everywhere!

In Africa, the phenomenon has been accelerated by the uplift and aridification of our continent over the past 10 - 30 million years. This made the vegetation change from forest to savanna, and then grassland. Later, the karoo, desert, and most recently, fynbos biomes developed. The climate became colder and more seasonal. It's not only insects that were affected. It's what drove the evolution of today's herbivores, and a certain ape that adapted to living on the ground....

But I digress. If there's no vegetation around for a long period of the year, either because frost kills it or fires burn it, what are insects to do? One option is to become a carnivore and live underground. And many have done this over the epochs. But there are other feeding strategies that go back further into the past.



Bushveld plain buffs *Cnodontes penningtoni* imbibing scale insect honey

Scale Insects (*Homoptera*) are a type of bug, that like the ants has an ancient lineage. Ants are well known to 'milk' bugs for their honeydew which is the waste from plant sap they suck. 'Bufs' are found all over tropical Africa, especially in the equatorial forests, where there can be dozens of related species in one clearing. There are plenty of them in forests like the ones at Lekgalameetse. They don't only drink bug honeydew – extra-floral nectaries on trees or herbaceous plants also attract them. This kind of thing was probably happening long before flowering plants evolved.



Natal mottled buff *Baliochila aslanga* on scale insects with *Crematogaster* ants

Here we see another species of buff, also sucking Homopteran honeydew, but this time in the company of some *Crematogaster* (cocktail) ants. It's likely that this is how deeper, more complicated ant associations evolved, but with these butterflies (subfamily *Poritiinae*) the association is with the adults. The caterpillars feed on lichens, another association that probably pre-dates plant eating. Lichens evolved a long time before vascular plants did. There are, however, lots of examples of plant-eating caterpillars that live with ants.

The butterfly genus *Lepidochrysops* (giant cupids), with 137 described species in Africa, is found in a wide variety of habitats. The northernmost species are found in savanna grasslands in equatorial Africa, and the southernmost in the fynbos of the Cape. DNA evidence has shown us that they evolved from the closely related *Euchrysops* (smoky blues), most likely when Africa was transitioning from mostly forest to a savanna mosaic.

Euchrysops are widespread in Africa; they are not restricted to grasslands although many of them are found in such habitat. At least one species has adapted to living underground as a caterpillar, and they are all ant associated, but they don't predate on the ants like *Lepidochrysops* caterpillars do. They are *myrmecoxenous*, which means they are attended by ants, but the ants do nothing to harm them. Like many of the *Lycaenidae* the caterpillars probably use chemicals (pheromones) to influence or control ant behaviour. They have another trick – many of them exude honeydew from a gland on their back near the tail end. This, like the honeydew from scale insects, attracts ants to them.

The Sabi smoky blue below is nectaring on *Ocimum obovatum*, along with a sugar ant, *Camponotus* sp. The same ant/plant combination is found in the *Lepidochrysops*, but with those the ants are prey, not partners!

The Lotana giant cupid (bottom) is one of Africa's rarest butterflies, at present only known from The Downs at Lekgalameetse. The egg will hatch into a caterpillar that will eat the ovaries of the flower. When half grown it will exude pheromones that control ants' behaviour, so that they carry it into their nests and allow it to feed on their brood. Those nests are usually underground, so the caterpillars are protected from the fires that often burn when the grasslands are dry. This is known as *phytopredaceous* behaviour – they begin on plants (hence *phyto*) and switch to predation on ants.



Sabi smoky blue *Euchrysops dolorosa* on *Ocimum* flower (above)



Lotana giant cupid *Lepidochrysops lotana* female ovipositing on *Ocimum* at The Downs

Giant cupids are among the largest and most spectacular of the 'blues'. This brilliant giant cupid is a species that can be found from the KwaZulu-Natal Midlands grasslands to the fynbos of the eastern Cape. Its wingspan is up to 40mm, making it a conspicuous sight as it flashes across the veld. These are in the subfamily *Polyommata*. Many of these are myrmecoxenous but phytopredaceous behaviour has only evolved twice. Once in the *Lepidochrysops*, and once in the distantly related and rare Eurasian genus *Phengaris* (the English 'large blue').



Uranus opal *Chrysoritis uranus* male

The 'western clade' of *Chrysoritis* is found in the fynbos and karoo biomes from Lesotho, westwards. It has some of the most spectacular small butterflies in the world. This Uranus opal, photographed high in the Western Cape mountains, is an example of this, but there are several other species. This clade is thought to be evolving as we study them, because they inhabit tiny ecological niches that shift as the climate changes, and many of them are incredibly difficult to tell apart! The caterpillars use a wide range of plants, but most of them use *Thesium* (*Santalaceae*).

Hutchinson's highflier, covered in an earlier article, is another member of the *Aphnaeinae*. That genus is found all over tropical Africa; some species are found in the wet equatorial forests of central and west Africa.



Natal silverline *Cigaritis natalensis* male

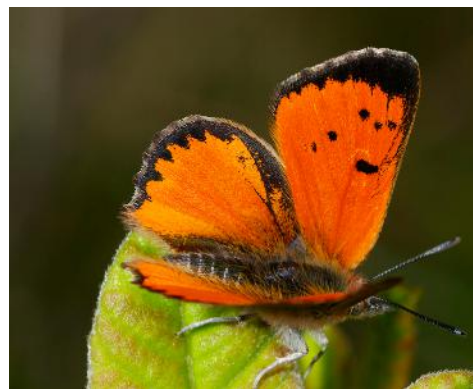
The genus *Cigaritis* is found not only in Africa but in southern Europe and in Asia as far east as Japan. There are five species in South Africa. They are also gorgeous little butterflies, the caterpillars closely resemble those of opals, and like those, shelter in cocktail ants' nests, and feed on a wide range of plants. *Cigaritis* are found in a wide range of habitats from succulent Karoo and desert in southern Africa, savanna and forest across tropical Africa and Asia, and desert again in north Africa and Arabia.

Despite this wide range, they most likely evolved in southern Africa as it was aridifying, then spread further afield as climate change caused their preferred habitat to expand and contract with time.

They are among the most evolutionarily advanced butterflies and are fascinating as



Brilliant giant cupid *Lepidochrysops asteris* on *Lantana rugosa* (above) and Mooi river opal *Chrysoritis lycegenes*



Ant association is taken to its extremes by other subfamilies of the *Lycaenidae*. We saw the *Miletinae* (skollies and woolly legs) in the last article, but the most widespread examples are in another subfamily, the *Aphnaeinae*. These are 'Africa-centric', but examples are found in Eurasia. The opals (genus *Chrysoritis*) are unique to South Africa and form two distinct 'clades'. The 'eastern clade' are coppery butterflies found in shrub patches along the eastern mountains and coast where the caterpillars feed on *Ebenaceae* (e.g., *Diospyros* sp.). Mooi River opal, *Chrysoritis lycegenes*, is typical of these. Other, similar, species are found in Mpumalanga and just penetrate Limpopo. The caterpillars have lots of adaptations to bind ants to them. This Mooi River opal caterpillar has three ways to control ants. At its rear (top of the photo) it has a honey gland and two 'tubercles' (the white structures on the side of its body) exude pheromones that control the ants. All over its skin it has tiny glands that exude different pheromones. It's basically a little walking chemical warfare agent!



Mooi river opal *Chrysoritis lycegenes* caterpillar with *Crematogaster* ants

The Transvaal thickettail scorpion (*Parabuthus transvaalicus*)



Tim Baynham
Wildlife Safety Solutions

Welcome to a series of articles on many things poisonous.

There are in the region of one hundred and fifty scorpion species found in southern Africa, the vast majority of which are not dangerous to people or considered medically significant. It can be challenging to identify scorpions to the species level. However, as a rule of thumb, scorpions with thick tails and small pincers are more venomous.

The most venomous species belong to the genus *Parabuthus*. Two species of *Parabu-*

thus scorpions are known to occur locally in the Hoedspruit area, the Mozambique thickettail (*Parabuthus mossambicensis*) and the Transvaal thickettail scorpion (*Parabuthus transvaalicus*).

The Transvaal thickettail scorpion is a highly venomous species, and is very common in Hoedspruit and the surrounding areas. They are large scorpions reaching up to 150 mm in length with the tail extended. Their body colouration varies from dark brown to uniform black, and the small pincers or pedipalps are lighter in colour. Males are smaller than females and have more rounded or bulbous pincers.

As their name suggests they have large



Transvaal thickettail scorpion (left and above) Images supplied

thick tails, and possess potent venom and anyone stung should seek medical attention immediately. Fatalities have been recorded; young children and the elderly are at greater risk.

There is antivenom available and it is effective in treating envenomation. Interestingly this species is one of relatively few scorpion species that has the ability to spray its venom as a defensive strategy.

This scorpion prefers a bushveld habitat and can be found sheltering under logs, rocks, woodpiles, leaf litter and other debris. They prey upon a variety of insects and other small invertebrates. Their range extends throughout much of Limpopo province, west into Botswana, southern Zimbabwe, and eastwards into southern Mozambique.

Sting prevention

As we head into the summer months scorpions become more active, foraging mostly

at night looking for prey or a mate. They often inadvertently enter buildings and may also be found around outside lights where they hunt the insects attracted by the light.

By taking some basic precautionary measures it is possible to greatly reduce your risk of being stung. There are really quite simple habits to get used to; always use a torch when walking around at night and wear closed shoes. Shake out shoes before putting them on, particularly if they have been left outside for any length of time. Always be conscious of where you are placing your hands. Whether it is grabbing some wood off the wood pile for your Friday afternoon braai, or moving those storage boxes in the garage, wearing gloves when performing these kinds of tasks will offer an additional layer of protection. Remember to shake out any items of clothing, towels, bags or any other kind of materials that may have been left lying on the ground. Keep doors and screen doors closed particularly at night to prevent scorpions from entering your home. There are often gaps under doors and it beneficial to fit aluminum door seals (draft stoppers) with the rubber strip to prevent scorpions and snakes from entering under the door. We live in an area where many homes and lodges have outdoor entertainment areas. It is advisable to always thoroughly check patio furniture before use.

For more information on venomous animals, awareness training and talks as well as a professional 24hrs problem snake rescue service, contact the author at Wildlife Safety Solutions: 073 934 6156; info@wildlifesafetysolutions.co.za; www.wildlifesafetysolutions.co.za.

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Snake season



Mozambique spitting cobra (above) and puff adder ready to strike (above right)

Copyright :Johan Marais

Johan Marais
African Snakebite Institute

Summertime is snake season, especially when the first good summer rains fall. We have already seen several snakebites in hospitals throughout the country and several dogs are also getting bitten by snakes.

Snakes are active both during the day and at night, and those that you encounter are invariably snakes on the hunt. The black mamba, boomslang and various sand and grass snakes are largely active during the day, whereas puff adders, most cobras and stiletto snakes are active at night.

As for snake behaviour, it is important to remember that snakes avoid people when given the choice, and are quick to escape. Should you encounter any snake in any situation, it is best to retreat at least five paces immediately, and if you have dogs, get them far away from any snake. Once you and your pets are at least five meters away from any snake you are perfectly safe and cannot get bitten. Mozambique

spitting cobras are problematic but more about them shortly.

Snakes often venture into gardens in search of food and are attracted by rodents, frogs, and birds. Pet food in feeding bowls often attracts rodents as will bird aviaries and chickens. Water features and fishponds attract frogs and many snakes feed on them. As for hideouts, snakes prefer building rubble and piles of rocks where they can squeeze in tightly where predators cannot easily get to them.

Unfortunately snakes often end up in houses, usually entering through open doors or through gaps under doors. They rarely enter through open windows unless there are shrubs growing against the windows.

The Mozambique spitting cobra is by far the biggest problem snake in the Lowveld. It averages 1,2m in length, and is active both during the day and night. It is an active hunter, and often accidentally enters houses through gaps under doors or through open doors on warm evenings. This snake is known to crawl onto beds and bite people. Many of these bites are in the face, on the chest or on arms

and hands in what is described as feeding bites. It is not a matter of the snake seeking heat or accidentally being rolled onto – they are finding a mammal in a bed, and mistaking it for a meal! We see many children, including small babies, ending up in hospital after a bite in bed, and it is not just people sleeping on the floor but even visitors to exclusive game lodges.

Such bites can be prevented by installing mosquito-proof doors, sealing gaps under doors and by sleeping under a mosquito net.

Should anyone encounter a snake in a house or garden, it is best not to try and kill or catch the snake. Rather watch it from a safe distance and call a snake remover to assist. There are over 700 snake removers on the free African Snakebite Institute app (see below).

In the event of someone being bitten by a snake, it is important to get the patient to the nearest hospital as soon as possible. There are various private ambulance services in the Lowveld that can assist in such an emergency. Stay away from arterial tourniquets, cutting and sucking wounds or using traditional remedies.

They often do far more harm than good. As for antivenom, it is only administered in hospitals when necessary, and nine out of ten snakebite victims that are hospitalized do not need antivenom.

For venom in the eyes, gently flush the eyes with water and transport the patient to a medical doctor for further examination. If treated properly, patients recover fully within two or three days.

In the event of your pet getting bitten by a highly venomous snake, take it to a veterinarian immediately. Giving the pet cortisone or antihistamine tablets, milk or charcoal does no good, and in the event of serious envenomation, a veterinarian needs to administer antivenom.

The African Snakebite Institute present several snake awareness, first aid for snakebite and venomous snake handling courses.

More information on courses: Michelle at courses@asiorg.co.za
Check out the website on www.africansnakebiteinstitute.com – get your FREE App on the link <http://bit.ly/snakebite-app>

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The tamboti tree: a timeless icon of rich cultural and natural significance

Nature correspondent

South Africa is a land of breath-taking landscapes and diverse ecosystems. It is home to an array of unique flora and fauna. Among its many botanical treasures, the tamboti tree () stands out as a symbol of historical, cultural, and ecological significance. This resilient and revered tree, native to the southern parts of the African continent, continues to be a vital component of South Africa's natural heritage.

Renowned for its beautiful wood, the tamboti is a medium-sized, semi-deciduous tree. It occurs in low altitude bushveld, often in dense stands in warm woodland and valley bushveld. Trees are common close to water – along rivers, seasonal streams, in brackish and poorly drained soils. Their deep root systems enable them to access water during dry seasons, making them resilient in arid regions.

The tamboti belongs to the Euphorbiaceae family. It can grow up to 18 meters in height and is commonly known for its toxic, milky latex. Its characteristic bark is dark brown to black, thick, rough which is neatly cracked into regular rectangular blocks that are arranged in longitudinal rows. It has distinctive dark green compound leaves with finely toothed edges. The young, red leaves are often visible among the older, green leaves in spring.

The leaves are a popular food source for kudu, nyala, impala and vervet monkeys, elephants, bushbuck, giraffe, and eland. Black

rhino is known to eat young branches. Duker, impala and nyala also feed on the dry fallen leaves of this tree. Larvae of the giant silk moth or African moon moth (*Argema mimosae*) feed on the leaves. Porcupines consume the bark. Except for the crested guineafowl, francolins and doves, birds generally avoid this tree.

What truly sets this tree apart are its vibrant orange-red fruits, which dangle from its branches during the late summer and early autumn months. These fruits, while toxic to humans, are a vital food source for various bird species and play a crucial role in the tree's ecological interactions. The fruit is a capsule that is three-lobed, and once mature, it becomes yellowish-brown before dehiscent with an audible popping sound, that can be heard on hot summer days from October to February. Bird species, including hornbills, barbets, and turacos, all play a vital role in seed dispersal.

The tamboti is one of the 'jumping bean' trees, because the seeds become infested with the larvae of the snout moth (*Emporia melanobasis*) which develops within the growing fruit. The larvae jack-knife inside the fallen segments, usually during bright, hot sunlight - causing them to move about erratically and vigorously, even jumping up to a height of 30cm.

Tamboti's are monoecious – having both male and female flowers. The flowerheads bear mostly male and a few female flowers. The female flowers are attached at the base of each spike. Flowering takes place

in August to September before the new leaves appear. The flowering spikes of this plant are unusual in appearance, as the male flowers appear gold-coloured because of the pollen, whereas female flowers are blood red.

Beyond its ecological importance, the Tamboti tree has cultural significance among various South African communities. The Zulu, Xhosa, and Sotho, have revered this tree for generations, incorporating it into their rituals and traditions. It is often used to make traditional medicines, as its bark and leaves are believed to have healing properties. Even the latex, which is very toxic to humans, has traditional medicinal uses, for example, a drop of the fresh latex can be applied to relieve toothache. The bark is used to treat stomach pains, but large dosages will cause damage to the internal organs. The poisonous latex is also traditionally used to stupefy fish, making them easier to catch.

The wood is still used traditionally for fencing, hut rafters, walking sticks and necklaces. It is also utilized in the construction of musical instruments, such as the marimba. The wood is so strong that you can make gunstocks or arrows from it.

The sawdust from the wood is harmful to the eyes and can even cause blindness. It is not suitable as firewood because the smoke is toxic and will cause diarrhoea if food cooked on the coals is eaten.

Unfortunately, and because the tamboti tree's wood is prized for its strength and



The dark brown cracked bark of the Tamboti

Image : Random Harvest Nursery

durability, this has unfortunately, led to overharvesting and a decline in its population in some regions. The result of this is that conservationists and local communities have joined forces to preserve this invaluable tree, recognizing its ecological significance and its role in preserving South Africa's natural heritage.

Are hyenas cowardly scavengers and are they dogs?

Both species will hunt and scavenge given the opportunity, the spotted hyena being the more accomplished hunter. They may be perceived as cowardly when encounters with lions are concerned, but both species outrank leopard and cheetah on the predator hierarchy and can be remarkably bold and aggressive.

Brown hyenas tend to be more solitary and are adapted more to scavenging. They prefer to avoid close contact with lions, and for good reason. They may well skulk in the shadows quite away from lion kills, sometimes waiting a long time after lions depart before attempting to feed. Far from being cowardly in avoiding confrontation, they use common sense because they will undoubtedly be able to utilise what is left of the kill, and avoidance of injury is of paramount importance for a lone forager. Browns are consummate survivors - when not scavenging the remains of large animals, they will hunt small vertebrates, such as birds, reptiles, amphibians, and mammals. They lack stealth and agility, however, and primarily surprise sleeping animals rather than run them down, although they do have amazing stamina. They have even been recorded to kill kori bustard at night. To supplement this diet, they will also take invertebrates - mostly insects - and in the most arid areas, fruit from which they obtain nutrients and water. They can, and will, drive leopard and cheater from kills, and will even, on occasion, actively attack them with serious intent.

Spotted hyenas, being bigger and tending to associate in numbers, of far more self-confident and willing to challenge lions. In fact, the amount of hunting they do is at least in part influenced by the resident lion population.

The fewer lions, the less there is to scavenge. Hyenas often form hunting parties, although they are able to kill when alone, running prey to exhaustion and then disem-

bowelling or eating it alive. Lions in these areas will often then scavenge from hyenas more than they hunt for themselves. When the population sizes are reversed, hyenas tend to scavenge more - a classical instance of utilising the 'path of least resistance' approach by not needlessly expending energy. When spotted hyenas are heavily outnumbered by lions at kills, they tend to hang back or pay with their lives - especially if male lions are present - but when the numbers start to even out, they become bolder and venture very close, often intimidating the lions with loud calling and movements of faint attacks. They are often successful enough to drive the lions off, but this generally only happens when they have superior numbers.

I have seen 12 hyenas easily drive 7 lionesses off a giraffe kill. The exception in my experience is when pride males are present - even when hopelessly out-numbered, they can keep hyenas at bay. In the Okavango, I saw 11 hyenas not dare to get closer than 100 metres to two pride males on a buffalo kill. When one hyena did pluck up the nerve to advance, a stern look was enough to make all the hyenas turn tail and lope off. Spotted hyenas will not usually hesitate to try an appropriate kills from other predators - with the possible exception of wild dogs that seem to have a good defence strategy. Spotted hyenas can become incredibly bold at night, and are not to be underestimated.

Are hyenas dogs?

Despite appearances in popular opinion, no! They are, in fact, more closely allied to the cats. Indeed, when carnivores are divided into their two simplest lineages, namely **cats** and **dogs**, then hyenas can quite correctly be referred to as cats.

As carnivores, the Hyena Family is relatively young - their direct ancestors were civets, a group they diverged from a few million years ago. They obviously evolved to occupy an unfilled niche - that of scavenging



A scruffy-looking brown hyena, found in more arid regions (above) and the spotted hyena (below)

Images : Canva Pro

remains from kills of the cats of the era, and their anatomy was, therefore, moulded for the job. They have powerful jaws and modified teeth for crushing (not slicing) bones to get to the marrow and make pieces small enough to swallow. They also have an enlarged thoracic cavity with big heart and lungs capable of excellent oxygen distribution that provides stamina to run prey down, at the expense of brute strength. Big feet with large blunt claws assist with digging retreats and dens and for caching or finding food. The powerful necks and sloping backs are the basis of their powerful leverage system. Hyenas can pull chunks/limbs from carcasses and carry heavy pieces long distances.

Excerpts from 'Beat about the Bush – Mammals and Birds' by Trevor Carnaby, Published by Jacana Media, Second Edition reprint 2018.



Can South Africa contain pangolin trafficking?



Participants crossing the finish line (top) and others making their way en-route (right). Riders relaxing (above).

Pangolin Reintroduction Project - Photo © _Beyond

Carina Bruwer

There are worrying signs that the illegal trade is becoming more organised, with professionals and government officials involved.

When asked about his favourite pangolin story, Francois Meyer, a pangolin release specialist, tells the story of Ally. After being rescued from the illegal trade, Ally – an expectant female Temminck's ground pangolin – was reintroduced into the wild and gave birth to her pup, Pod.

The following year she had her second pup, Ray, named after pangolin expert Professor Ray Jansen from South Africa's Tshwane University of Technology and the International Union for Conservation of Nature Species Survival Commission Pangolin Specialist Group.

Success stories like Ally's are the culmination of efforts to ensure the survival of pangolins rescued from the illegal trade and bring perpetrators to book.

Temminck's ground pangolin, South Africa's only indigenous species, is globally classified as vulnerable to extinction. These gentle, elusive creatures are hard to study, but research indicates that their numbers are declining, primarily due to illegal international trade. They are also threatened by habitat destruction and electric fences.

The unsustainable consumption of Asian pangolins is likely to have resulted in the increased sourcing of African species.

Pangolins have historically served as bushmeat in some African countries, with limited use of their scales for traditional cultural practices. Jansen says the cultural use of pangolins in South Africa is considered sustainable. The existential threat stems from the illegal trade that supplies Asian demand for pangolin scales used in traditional Chinese medicine.

International trade in pangolins and their derivatives, like scales, is globally prohibited. Pangolins are protected under South African law, which bans hunting, catching, transporting, selling, buying, importing, exporting and being in possession of one without a permit.

However, prohibition has done little to mitigate the trade globally. The unsustainable consumption of Asian pangolins is likely to

have resulted in the increased sourcing of African species. Most shipments seized in Asia originate from Africa – particularly central and western Africa. After being killed, pangolins are stripped of their scales, which are shipped primarily from Nigerian ports, mainly destined for China and Vietnam. Seizures containing whole pangolins from Africa are rare, even though their meat is considered a delicacy in Asia.

South Africa is an outlier in this global trade due to limited pangolin seizures. Jansen told the ENACT organised crime project that from January to August 2023, about 30 pangolins were seized in the country – on par with previous years' numbers.

Most of these confiscations were of live pangolins and were led by a task team comprising different law enforcement entities, often based on information received from the public. Seizures were largely carried out in Limpopo, where pangolins are often sourced. In some cases they were brought across the border from Mozambique, Botswana, and Zimbabwe.

Jansen says the motivation for this cross-border movement could be to escape strictly imposed penalties in neighbouring countries, or due to the perception that South Africa has more buyers. That explains why many seizures have been made in economic hubs like Gauteng. Most arrests are of foreigners from countries like Zimbabwe and Mozambique.

Worrying change in trends - Although these isolated incidents are incomparable to the multi-tonne seizures of containerised



A rescued pangolin forages for food in Limpopo (left). A rescued pangolin about to be transported to the Johannesburg Wildlife Veterinary Hospital after members of the Johannesburg Tactical Response Team and Criminal Intelligence units received information of suspected poachers in Cosmos City, Johannesburg. Three suspects were arrested - (above right)

pangolin scales from central and west Africa, experts say changing trends in South Africa may be cause for concern.

Jansen and Meyer agree that pangolin sales were initially largely opportunistic, carried out by impoverished people trying to make fast money. Now, however, suspects often own businesses and vehicles and trade in other illegal commodities. Police and government officials have also been arrested. Another emerging trend is the increased seizure of pangolins and skins from the northern Cape and Namibia.

Rescuing pangolins from traffickers is only the first step in a series of efforts to care for seized pangolins and get them back into the wild. Pangolins are sensitive to stress during capture and trafficking, and they often suffer psychological effects and illnesses far worse than physical injuries.

If the trade is indeed becoming more organised, with professionals and government officials involved, it opens the door for corruption, as happened in the rhino horn and abalone trades.

After being confiscated by police, nongovernmental organisations typically take over their care, which includes veterinary treatment and rehabilitation for those who survive. They then enter a period of facilitated, monitored release until they are completely rewilded.

Meyer says that through trial and error a group of passionate pangolin rescuers have developed best practices to get the animals from the trade back into the veld. They have trained counterparts, resulting in multiple

institutions being able to care for rescued pangolins.

Since awareness of this illegal trade has grown, heavier sentences are increasingly being handed down. And while the number of seizures is stable, this was once the case for rhinos before illegal harvesting rapidly escalated. While most law enforcement efforts focus on seizing individual pangolins, it is possible that the animals are being transported, undetected, from South Africa on a larger scale.

South Africa already serves as an exit point for large shipments of wildlife commodities such as ivory and abalone. But – as is typical of organised crime investigations – Jansen notes the difficulty in infiltrating the criminal networks responsible for large export operations.

If the trade is indeed becoming more organised, with professionals and government officials involved, it opens the door for corruption, as happened in the rhino horn and abalone trades. That could see pangolin smuggling growing and becoming entrenched in South Africa. Since the global illegal trade shows no indication of slowing down, the country should be prepared to prevent this expansion.

Meyer and Jansen highlight the urgency of teaching people about unique species like pangolins – keeping them alive in popular culture so that South Africa does not sell its natural resources to other countries before realising what has been lost.

There are effective informal working relationships between the various entities tackling the illicit trade and caring for pangolins. However, South Africa needs an intervention similar to the National Response Strategy to combat the booming illegal succulent trade. This would coordinate state and non-state actors' activities and deal holistically with the pangolin trade, its causes and effects.

Dr Carina Bruwer, Senior Researcher, ENACT, Institute for Security Studies (ISS) Pretoria

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Decline in Kruger rhino-poaching rates woefully drives shift to commercial bushmeat, reveals park ranger



The African buffalo is one among multiple species in Kruger National Park being targeted by poachers' snares
Photo: Unsplash

Tiara Walters

A void left by illegal horn income may now be driving neighbouring communities to snare and shoot species such as African buffalo in the park's southwest sector. Despite the lowveld's searing heat, thorny canopy and tough terrain, Kruger's staff and honorary rangers say they are fighting back — on foot.

WARNING: This article contains graphic descriptions that may upset sensitive readers.

Fortified in fatigues and chaps, Pretoriuskop section ranger Rangani Tsanwani patrols the southwest reaches of the park most days. In all seasons, Tsanwani and his team do daily 10km sweeps of this wild country by foot — whether the mercury hovers in the high forties, or winter brings its own set of trials.

It is in the colder, drier months that the parks sees an uptick in snaring, which has surged by 200%, as Daily Maverick first reported in October.

To make snares, poachers typically fix a camouflaged wire or cord noose over animal paths which tighten upon disturbance. Since the Covid-19 pandemic, Tsanwani and his colleagues have removed 14 000 such snares throughout the park.

In 2022, at least 7 270 snares were removed — compared with 2020's 2 407 snares.

"There is an increase in snares, but it's seasonal," Tsanwani told Daily Maverick in Pretoriuskop, after accompanying six honorary rangers on a snare sweep. During a single 8km patrol between 7am and 10am in late October, Tsanwani, his staff and the volunteer honorary rangers flushed out and destroyed 66 snares.

"During dry seasons, and when the area is burnt, that's when you will see lots of snares," Tsanwani said. In winter, when water was concentrated, snares tightened their stranglehold along Kruger's western boundary, he said — particularly along rivers or streams within relatively easy reach of the Pretoriuskop fence.

The nearby Skukuza and Stolsnek sections, as well as Pafuri near the park's borders with Zimbabwe and Mozambique, have also been reported as hotspots by recent Parliamentary figures.



In late October, a vervet monkey tries to satisfy its thirst during a simmering afternoon at Pretoriuskop rest camp, Kruger National Park
Photo Tiara Walters

'Shooting the buffaloes, selling the meat'

In the first half of 2023, over 60% of rhinos poached in South Africa perished in KwaZulu-Natal — about 140 compared with Kruger's roughly 40 casualties. This continues Kruger's decreasing poaching trend, which has seen a population plunge from 10 000 animals less than two decades ago to, officially at least, under 3 000 today.

Now African buffaloes — slaughtered by both snare and firearm — appeared to be among the targets.

"Since rhino poaching has dropped, I think people are more into snaring," Tsanwani said. "There is a link because they are not only using snaring to get buffaloes — they are also shooting the animals."

A tangled web seemed to be driving the park's snaring surge, Tsanwani added: "There is a medicinal trade. There are those who are poaching to sell the meat. And there are those who are poaching to feed their families."



The 6km mark to Kruger National Park's Numbi gate, which leads to the Pretoriuskop section, in late October. A sprawling network of informal settlements, in which the vast majority of people are unemployed
Image supplied

Over recent decades, impoverished settlements outside Pretoriuskop's Numbi gate have encroached upon the park's western edge, bringing with them economic hardship that is increasingly spilling through the penetrable fence.

"Remember most of the people here, they were relying on rhino poaching for survival," said Tsanwani, explaining some poachers were resorting to more than snares to down their quarry. "Now they don't have anything that is bringing food to the table — so they are moving to buffaloes, shooting the buffaloes and selling the meat."

Practised and prepared

Snaring, in other words, was not merely driven by hunger, but had evolved into a commercial business for the bushmeat market, with customers already lined up to purchase meat on the other side of the fence.

"People who are arrested, when you ask them, they will tell you we already had buyers outside," he said. "So they are killing the animal in order to sell the meat."

The methods were organised and practiced, suggesting the potential presence of a bushmeat syndicate.

"What [rhino] poachers normally do, they hire the younger boys, and they are the ones who are sitting on the hill, and they tell them to sit there and view the animals," he said. "They [the boys] will call them to say, 'There are animals that are coming down.' So the same boys, they are still using them for operations."

Snare tactics: 'We know it's for a buffalo'

On the cloudy but blistering October morning that Daily Maverick joined that sweep, volunteer snare patroller Mandi Malan hunted down multiple traps set for a species smorgasbord — including buffalo.

"This is a big snare — it's meant for a buffalo," demonstrated Malan, one among about 2 000 SANParks honorary rangers stationed in 31 regions around the country. "They use this bark, or sometimes grass, to tie and hold it here, because it's a thick cable snare. And we

know it's for a buffalo because they used a big tree, and they do it on the riverbank because here the buffaloes eat a lot."

Near one of several buffalo snares found by Malan, she pointed to yet another wire trap and, beneath it, dark, dry blood caked the leaf litter.

Although Pretoriuskop indicated that buffalo were among targets of illegal hunters, Dr Sam Ferreira, Kruger's large mammal ecologist, said the park had no hard data to support a wider trend. That said, snaring was not only insidious and difficult to detect, but an unforgiving killer. Ungulates like buffalo, pachyderms like rhino, carnivores like lion, and so on, covered significant distances while trapped in wire, exposing them to profound pain and even death.

Some were easier to catch than others. One ranger, not authorised to speak publicly, told us of a persistent snare that had decapitated a hyena. That, of course, is an extreme case, since hyenas are remarkably resilient, often biting through snare cables or breaking them to escape. The wounds seen on hyenas, who are accidental non-targets like other carnivores, are mostly caused during their escape attempts.

For reasons less publicly reported, said Tsanwani, snaring was also indiscriminate because of veldfires started by illegal hunters.

"Because, often, when the area is burnt like this," he explained, gesturing at the soil at our feet, "we'll start to pick up lots of snares. The community burnt this area intentionally to attract animals. When new shoots come out, these grasses, they become more palatable. So, animals will be forced to come down here to feed. That's the time where you will see lots of snares. Come summertime, there will be water everywhere, and there will be grass all over. Then the snaring will drop a little bit." Until the next winter season, that is.



Dried blood in the leaf litter beneath a snare in Kruger's Pretoriuskop section
Photo Tiara Walters

"If you have got snares like this, it's disturbing to your work routine because you don't just walk, you are looking," he noted. "If you are patrolling to remove snares, you spend more time looking for snares. But if it's a patrol of the fence, then you just walk from one point to the other."

Yet, Tsanwani said he was driven to brace the acacia frontline because he loved it.

"I love nature. I studied conservation. So, yeah, that's my life, that's my day-to-day thing," he said, his fatigue sleeves rolled up to his biceps. "I started this career as a wilderness guide for guests, then I moved to ranger services. That's my life, that's who I am."

Nevertheless, Kruger's mammals are increasing

Despite snares littering fence areas along Kruger's western boundaries, park staff told Daily Maverick the surge was isolated to areas within relatively easy walking reach of the perimeter. The greater park's 2-million-hectare interior was mostly unaffected except for animals snared near the western edge and venturing deeper within. Local private game reserves with beefed-up fences have not reported a surge.

According to Ferreira, the large mammal ecologist, most of the park's charismatic megafauna were, despite localised snaring

along the fence, doing well. About 30 000 elephants roamed the length and breadth of the reserve while spotted hyenas doubled to about 7 000 over the past 15 years, indicating good prey biomass.

Over the same period, giraffes had edged up by 5% a year, while lions were stable at 2 000 — despite poisonings. Hippos had also shown their own brand of resilience, reaching highs of 7 000 before a drought in 2015-2016. Black rhinos "managed to maintain their low populations" at 210, but white rhinos faced higher mortality rates.

"And with the reduction in poaching rates we hope that we're also going to see our white rhinos increase," he said, suggesting the optimistic possibility of a "bumper calf year".



Dr Sam Ferreira, large mammal ecologist, in Skukuza rest camp in late October. Hyenas were mostly doing well, said Ferreira, indicating a healthy prey biomass - Photo Tiara Walters

Ike Phaahla, the park's spokesperson, said the park had implemented intensive, multi-layered efforts targeting rhino poachers specifically, including a K9 unit with over 30 dogs, surveillance and sentences up to 40 years. Rhinos across the park had been dehorned.

"Kruger is surrounded by poverty-stricken communities where there is no service delivery, unemployment is very high, and there is little or no law enforcement," said Phaahla, who cited "key" partnerships with law-enforcement agencies and communities in the hope of addressing the snaring surge.

Indeed, Kruger's heightened security approach may have made Hluhluwe-iMfolozi Park, where a decision has not yet been made on dehorning, a softer target.

'Cuts like a knife'

According to state veterinarian Dr Louis van Schalkwyk, who was regularly called out to lure out, sedate and treat injured animals, there was no injury in an animal "more horrible" than a snare.

"A cable cuts like a knife," he said.

Speaking at southern Kruger's Skukuza's rest camp, Van Schalkwyk pointed out that the park's 6 000km of roads represented only 4% of its Israel-sized expanse. Some animals, like leopards, were "extremely" difficult to catch because they did not respond well to lure calls.

"You often have to catch them in a cage trap," noted Van Schalkwyk, who said he aimed for follow-up treatments of species where possible. "You have to be really patient."

Most of all, said the veterinarian, before rushing off to treat a snared wild dog, he was haunted by those he could not save — despite Kruger staff and honorary rangers removing thousands of snares in the past three years.

"You always have to wonder," he remarked, "how many did not make it to that point when we could at least have found them and saved them?"

Report snaring incidents in Kruger National Park, including the exact time, location, and description of the sighting, to the Majoc Emergency Call Centre at 076 801 9679.

This article was previously published in the Daily Maverick

Spring of Hope's Women in Entrepreneurship Program - graduation pitch finale



Program participants flanked by A Spring of Hope's partners and executive management (above left) and the top 3 winners with A Spring of Hope's Joanne Roy Young, Gail Auguston-Koppen and Nelly Mofokeng



A Spring of Hope's maiden Women in Entrepreneurship Program (funded by Itirele Foundation Charitable Trust), launched on a high note as part of the Women's Month celebrations in August 2023 in Open Gate, Acornhoek.

The program started off with an intensive three-day bootcamp. The 31 highly engaging young women, all of whom are running micro-enterprises, some still in ideation phase, were exposed to the fundamental concepts of setting up and running a sustainable business. This intervention included exploring new business opportunities and value chains.

The enthusiastic cohort of participants had the opportunity to put the lessons learned into action, supported by mentors and over a period of three months. This culminated in a 'Dragon's Den style' pitch competition and certification.

The special occasion was attended by A

Spring of Hope International's board member Gail Auguston-Koppen and CEO Joanne Roy-Young who shared their pearls of wisdom about commitment and staying the course. Resilient as ever, contestants fielded the judging panel's questions with grace, keeping them on their toes!

Each participant received a Business Management Training Certificate. After much deliberation, the judges announced the top three businesses that scooped the much-needed cash injection to the value of R25 000. This will be used to take their businesses to the next level.

The first prize winner, Charity Nyathi from Sigagula in Acornhoek, received a R12 000 business voucher to boost the manufacturing of her moringa beauty product range. Second prize winner, Mapusha Weavers from Maromeng in Acornhoek, received an R8 000 business voucher to scale the weaving of their floor and wall rugs, along with

other crafts. Third prize winner, Langutani Khoza from Sigagula in Acornhoek, received a R5 000 business voucher, towards equipment to manufacture scented beeswax candles and air diffusers.

In acknowledging their unwavering commitment to the program, Executive Director at A Spring of Hope SA, Nelly Mofokeng had this to say: "As our first cohort of the Women in Entrepreneurship Program I must say that we couldn't have asked for better cohort to kick-start this program. As you prepare to step into the next phase of your career journey, moving on to bigger and greater ventures, never stop learning and lift others as you rise, because each one of us has role play in building thriving communities".

A Spring of Hope is an international NGO that provides rural South African schools and communities with clean water sources, permaculture gardening methods, waterless sanitation solutions, feeding

kitchens, entrepreneurship, and life skills.

The availability of an adequate supply of clean water, when coupled with ongoing training and technical support, has been shown to improve health conditions, combat poverty, and promote education for students, as well as to create a source of financial self-sustainability for communities.

Established by mother and daughter team, Joanne and Brittany Young in 2007, the organisations work has directly impacted over 80 000 individuals in the Mpumalanga and Limpopo provinces, through support from Thulani Lodge, corporate and individual donors.

A Spring of Hope contact details: Nelly Mofokeng +27 82 926 8611, Email: nelly@springofhope.org, www.springofhope.org

Malaria: the silent killer and ways to defend against it

Malaria, a deadly and persistent tropical disease, continues to plague communities in many parts of the world. This parasitic infection, transmitted primarily through the bite of infected Anopheles mosquitoes, remains a significant global health concern.

Malaria is caused by the *Plasmodium* parasite, of which five species are known to infect humans - *Plasmodium falciparum*, *Plasmodium vivax*, *Plasmodium ovale*, *Plasmodium malariae*, and *Plasmodium knowlesi*. Of these, *P. falciparum* is the most deadly and responsible for the majority of malaria-related deaths worldwide, and indeed in South Africa.

When an infected mosquito bites a human, it injects the malaria parasites into the bloodstream. These parasites then travel to the liver, where they multiply and mature. Once mature, they re-enter the bloodstream and invade red blood cells, causing them to rupture. This cycle of infection, multiplication, and red blood cell destruction, leads to the characteristic symptoms of malaria.

The symptoms of malaria can vary in severity and presentation, making diagnosis challenging. Common symptoms include - high fever, chills and shivering, sweating, headache, fatigue, nausea and vomiting, muscle and joint pain, anaemia (due to the destruction of red blood cells), enlarged spleen, and in severe cases, jaundice.

If left untreated, malaria can lead to severe complications, including cerebral ma-



laria, organ failure, and death. Vulnerable populations, such as young children and pregnant women, are at a higher risk of developing severe forms of the disease.

The mosquitoes are most active during the night, so the risk of infection is highest after sunset and before sunrise. However, malaria can also be transmitted through blood transfusions, organ transplantation, and from mother to child during childbirth or breastfeeding.

Preventing and controlling malaria is paramount, especially in endemic regions. There

are many effective safeguards against malaria. Sleeping under insecticide-treated bed nets is one of the most effective ways to prevent mosquito bites. These nets create a physical barrier and kill mosquitoes on contact.

Spraying insecticides on the interior walls of homes can reduce mosquito populations and their ability to transmit the disease.

Taking antimalarial drugs, such as chloroquine, artemisinin-based combination therapies (ACTs), or prophylactic medication, can be effective. However, drug resistance

is a growing concern in some regions.

Timely diagnosis and treatment are crucial to prevent severe malaria. Diagnostic tests, such as rapid diagnostic tests (RDTs) and microscopic examination of blood smears, help healthcare professionals confirm the presence of the parasite.

Educating communities about the importance of malaria prevention and control, the use of bed nets, and seeking prompt medical care can significantly reduce infection rates, and in the African context is probably one of the most important parts of the holistic prevention protocol.

Eliminating mosquito breeding sites, such as stagnant water, and using insect repellents can reduce mosquito populations and minimize the risk of transmission.

The development and deployment of a malaria vaccine, like the RTS,S/AS01 (Mosquirix), show promise in preventing infection and reducing the severity of the disease, particularly in young children.

Ongoing research into new antimalarial drugs, mosquito control methods, and innovative prevention strategies is essential in the fight against malaria.

This disease remains a formidable global health challenge, particularly in tropical regions. Understanding the infection, its symptoms, and how it is transmitted is crucial in the battle against this silent killer. The effective safeguards, as mentioned above, are essential components of malaria control efforts.

Remembering Leopards book release: A night of conservation, photography, and inspiration



Samantha Collett-Duku

On a warm Lowveld evening, wildlife enthusiasts and conservation advocates gathered for the highly anticipated book release of *Remembering Leopards*, the eighth installment in the remarkable 'Remembering Wildlife' series. Hosted in Hoedspruit, the event celebrated the beauty of leopards captured through the lenses of talented photographers, but also aimed (together with the balance of the series) to make a significant impact on global conservation efforts.

The night commenced being warmly welcomed with a glass of Painted Wolf wine, setting the tone for an evening of social engagement before the formal proceedings took place. The atmosphere was buzzing with anticipation and excitement as Margot Raggett MBE, the visionary behind the 'Remembering Wildlife' series, took the stage to express gratitude and acknowledgement of the efforts of those involved, extending a special thanks to Harriet from Wild Shots Photography Outreach, the driving force behind the event's organization. Recognition was also given to Brent Leo-Smith from Painted Dog TV and Tristan Dicks, whose remarkable photography features alongside many other photographers in the pages of *Remembering Leopards*.

Remembering Leopards is not just another coffee table book; it is a testament to the power of art and collaboration in the service of a noble cause. As with the previous editions in the series, 100% of the profits generated from the book's sales will be donated to conservation and anti-poaching initiatives. Featuring contributions from

95 wildlife photographers worldwide, including six from Hoedspruit - Tristan Dicks, Lance van de Vyver, Shannon Wild, Russell MacLaughlin, Chad Cocking and Hannes Lochner, the book showcases a diverse range of perspectives on the elusive and majestic leopard.

Margot's journey from a city girl with a background in PR to a passionate advocate for wildlife conservation is both inspiring and transformative. Her introduction to the wonders of African wildlife during a camera safari in the Maasai Mara, coupled with formal training at the London School of Photography, laid the foundation for her role as a resident photographer guide in northern Kenya. It was during this period that the 'Remembering Wildlife' series was born, sparked by Margot's visceral reaction to witnessing a poached elephant.

The inaugural book in the series, *Remembering Elephants*, was launched in 2016, selling 2 500 copies within two months. Since then, the series has seen remarkable success, with over 37 000 books sold, raising over a million pounds. These funds have been distributed to 68 projects across 31 countries, supporting initiatives such as poaching patrol assistance, elephant collars, protection for 'bomas' and livestock 'kraals,' and tracking.

Funding for the printing of each book, costing £20 000 for 1000 copies, is procured through crowdfunding on the Kickstarter platform. The success of these campaigns has been staggering, with the initial target of £20 000 met within 11 hours in the first year, and an astonishing three minutes in the latest campaign!

The highlight of the evening was a captivating presentation, with a slideshow of the



Remembering Leopards books (top). Margot and Tristan sit down for a book signing (above). Images: S Collett-Duku

featured leopard images narrated by Tristan Dicks and Brent Leo-Smith. The audience, described as 'educated' by the presenters, was treated to astonishing facts about the eight subspecies of leopards and their incredible adaptability. The breathtaking imagery showcased leopards from the snow-covered landscapes of Russia, the familiar territories of the Sabi Sands, those coexisting with monks in the Himalayas, and even the only known photograph of an Arabian leopard taken in Israel in 1987.

The interactive presentation concluded with an opportunity for the audience to pose questions, deepening their understanding of the world of leopards and wildlife conservation. The evening concluded on a high note with Margot and Tristan engag-

ing in a book signing session, where captivated attendees had the chance to take home a piece of conservation history.

All proceeds from the sale of *Remembering Leopards* will be directed towards Contemplate Wild, a local organization leveraging technological and data science expertise to support conservation efforts. By harnessing the power of innovation, Contemplate Wild is committed to safeguarding species and preserving the delicate balance of our planet's ecosystems. The evening in Hoedspruit not only marked the launch of a stunning book, but also reinforced the enduring spirit of collaboration and dedication to the preservation of wildlife.

Order your book here: www.buyrememberingwildlife.com



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Help Reduce Illegal Dumping



As residents of Hoedspruit we all get upset when we see or read about illegal dumping of refuse and building rubble around town and surrounding areas as has been reported of late next to railway lines, main roads and residential areas.

We can all work together to try as far as possible to reduce illegal dumping by:



Ensure that if you use a third party to come and collect your refuse/building rubble when you do renovations or construction, that they are firstly registered with the Maruleng Waste Management Department (no charge) and that they have a coupon to enable them access to the landfill site out in the London/Oaks area (Approx. R250 per Bakkie load). They should be able to supply you with a copy or a photo of their registration letter from Maruleng and also of their coupon for your dump.

Contact Mrs. Mokgadi Kapa, the Maruleng Waste Department Officer who can quote you to either have a skip delivered to site which will then be collected or send a truck through to collect the refuse/building materials.



For garden refuse, if it is broken up and securely packed into bags Maruleng Municipality will collect up to a Maximum of 3 bags at no charge together with your waste, if you are doing a massive clean and it is more than three bags then please contact Mrs. Mokgadi Kapa to arrange collection and there will be a fee applicable.

Please report all illegal dumping with a photo, details and address to Mrs. Mokgadi Kapa on Whatsapp:

072 481 7173



Please be aware that there is a

R 10,000.00 FINE

applicable for illegal dumping and part of the onus is on you to ensure that your waste/rubble is disposed of in the correct manner. If you use an illegal or unregistered 3rd party you, as well as the 3rd party will be fined.

Please circulate this to neighbors & Estate offices to ensure that any residents or contractors who are building and/or renovating homes are aware of the process.



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PLEASE HELP US KEEP HOEDSPRUIT CLEAN



Junior FGASA & Kids In The Wild

WORLD CHEETAH DAY 2023

Size: the length of a cheetah is generally between 1.1m and 1.5m and reaches between 67cm and 94cm at the shoulder in height.

Body: slender body, with deep chest (enlarged lungs) and narrow waist.

Tail: long and thin, spots that merge into bands near the tip, ends in a bush white tuft. The tail is around 66cm to 84cm

COAT: short, coarse, tan with black spots 2 or 3 cm across.

COAT: underside whiter in colour and lacks as many spots

Claws: cheetah have semi-retractable claws - the sheath is missing so they are always visible and leave a mark on the ground where they walk.

MARKINGS: distinctive black "tear marks" run from the corner of the eyes down the sides of the nose to the corners of the mouth.

Eyes: high-set eyes orange-brown to very dark brown

Nose: dark/black nose

Neck fur: is longer and often visibly ruffled

Small rounded head

"tear marks"

Dewclaw: is still sharp, and doesn't touch the ground

Rounded pupils

Large nostrils

Short whiskers

Hind Foot: 10.5cm

Front Foot: 9.5cm

Digitigrade foot structure - padded feet

Claws are seen in tracks as cheetah do not have fully retractable claws like other big cats

The cheetah's body is shorter than a leopard's (in terms of body length/shoulder height ratio), but its longer tail and legs make it look more streamlined.

S	P	O	T	S	P	R	E	D	A	T	O	R
A	R	T	C	B	Z	E	G	T	G	W	A	U
V	A	C	C	E	L	E	R	A	T	I	O	N
A	Q	H	D	F	C	V	A	G	H	L	O	N
N	U	E	R	V	P	A	S	I	R	D	N	I
N	P	E	Q	C	U	S	S	L	U	O	S	N
A	K	T	V	A	R	D	L	E	N	S	P	G
H	F	A	S	T	Y	F	A	B	N	P	M	W
E	T	H	U	B	F	T	N	R	I	I	B	R
X	B	N	S	P	E	E	D	T	N	N	S	G
W	H	I	S	K	E	R	S	V	G	T	G	V
H	J	O	A	C	W	I	L	D	L	I	F	E

ACTIVITY TIME

"CHEETAH SPOTS" Poster:
Put the spots back on the cheetah. This is a simple, fun activity for learning and colouring.

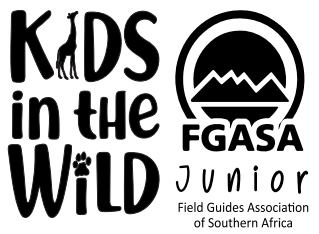
SCAN ME!

- ### WHAT YOU WILL NEED:
- Enlarge and print black & white cheetah picture: www.cheetahkids.com
 - Piece of poster board, cardboard or use an empty cereal box side
 - Markers or coloured pencils
 - Paste printed cheetah picture to stiff surface (poster board, cardboard, etc.)

How to:

Using your colours start colouring the spots on the "Cheetah Spots" poster. Ideas for putting the spots back on the cheetah:
 Colour in a spot for every cheetah fact you know.
 Colour in a spot for every 15 minutes of reading.
 Colour in a spot for every cheetah fact your family and friends know.

ACCELERATION, AGILE, CAT, CHEETAH, FAST, GRASSLANDS, PREDATOR, PUR, RUNNING, SAVANNAH, SPEED, SPOTS, SPRINT, WHISKERS, WILD, WILDLIFE



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