



KRUGER2CANYON

NEWS

October 2023

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

Snaring in Kruger National Park spikes more than 200% amid socioeconomic crisis

Tiara Walters

Since 2020, snaring has tripled in the crown jewels of South Africa's Big Five reserves. This suggests economic hardship, although it is not the sole factor to blame.

Snared wildlife is the last thing tourists pay to see from their safari vehicle, yet an emerging onslaught in this crude form of poaching is set to become another concern for a country seeking to revamp its ecotourism reputation.

Recognised for its megadiversity, South Africa has introduced a new draft policy to overhaul the use of its iconic lions, leopards, elephants and rhinos. Open for a 30-day comment window from 19 September, the draft admits it is a grand reputation-management exercise. Among others, it aims to promote sustainable use; and end the controversial practice of keeping captive lions cruelly shot at close range.

However, new details in an internal question paper from Parliament's National Assembly exposes a growing dilemma outside Kruger National Park. Affecting wildlife deep within the 2 million-hectare reserve, the trends suggest just how vulnerable many critters in this park are.

Responding to questions by the Democratic Alliance's Hannah Winkler on the park's snaring trends, Environment Minister Barbara Creecy reported the removal of thousands of snares:

- In 2020, 2,407 snares were removed;
- In 2021, 4,454 snares were removed;
- In 2022, 7,270 snares were removed.

That is a snaring uptick of more than 200% between 2020 and 2022, or a three-fold increase of about 14,000 snares.

Two issues stand out. Firstly, the minister's department has not yet issued statistics from 2023. Secondly, the data can only record known snaring incidents, so the predicament may be bigger than has been possible to present here.

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Pandemic, poverty and poaching

When exploring the driving factors behind the onslaught, the conundrum deepens, because the available peer-reviewed data looks thin.

However, the chronology suggests a quieting if still speculative correlation between the pandemic and snaring.

"No specific research has been undertaken to understand the primary drivers of snaring incidents," the minister noted, "but we notice the increase coincides with the Covid-19 pandemic and increased poverty among communities adjacent to the Kruger Park."

Though it may be difficult to believe

this widely reported issue is under-researched, a 2022 University of Sussex study found most pandemic data on poaching in Southern Africa came from news media. These statistics were hard to gather, precisely because poaching was underground.

Either way, the minister's explanation lends weight to wide-ranging reports and anecdotal evidence that have linked the pandemic's socioeconomic ripple effects to a spike in poaching — and suggests an urgent need for more research.

That said, bushmeat is not the only reason the noose has tightened around Kruger's species. The traditional medicine (muti) trade, retaliatory action against animals that clash with humans and internal corruption within the park may all compromise anti-poaching efforts.

Kruger National Park spokesperson Isaac Phaahla told *Daily Maverick* they had

no empirical evidence that animal parts were used for muti; however, "some of the arrested people found with body parts are traditional healers".

Snared on the boundary, found deep inside

The most afflicted regions were the Pa-furi section, marking the park's northern boundary, and western areas around Pretoriuskop, Stolsnek and Skukuza.

"Most snares are set along the boundaries of the park," the minister further revealed. That is, they are "limited within a few kilometres from the perimeter boundary fence".

Yet, even as the borders bore the brunt, snared animals were being found deeper within the park's expanse, she explained.

Animals covered "vast distances" while trapped in snares, exposing them to profound pain and even death.

This method of hunting is problematic beyond the obvious harm to animals, because snares are indiscriminate — with the ability to inflict fatal suffering on non-target species.

Water sources — a life and death struggle

To make snares, poachers typically use wire or cord that is anchored to a fixed point, and shaped into a noose on animal paths.

Camouflaged to blend with the environment, these have triggers that tighten upon disturbance.

Placing snares seemed to follow a seasonal trend, the minister said, with more set up during drier months when animals gathered at specific watering points.

The very sources such as rivers or streams which are vital for species' survival were turning into fatal traps, particularly those near boundaries and newly burnt areas.



Snares confiscated by rangers in the Kruger National Park, date unknown. Photo: Supplied

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From the editors desk



From the Editor

I don't know about all of you, but this month I have almost had numerous heart attacks, had to take tranquilizers, and certainly done a couple of sleeping tabs!

This Rugby World Cup has been off the charts, my heart rate has been higher than it has ever been, and the booze cabinet has taken a serious pounding! By the time you read this we will be gearing ourselves up for the final tomorrow.

Thank heavens its now coming to an end, these late nights are taking their toll. Not sure what we will watch after this rugby fest, and it will be a big let-down once it is all over. Anyway,

whatever the result we were treated to possibly the most incredible rugby that has ever been seen, skill levels that are quite extraordinary, analysis and tactics on another level, and genius from coaches and players unseen before – and the best game in history, ever (France vs South Africa)! What a fantastic couple of months we have had – but back to reality.

The sewage problem is still a problem and will not be fully solved until the infrastructure is improved and upgraded. I hear the Berlin housing development is continuing – I really do hope that that the municipality and Mopani district municipality get their ducks in a row before then with respect to the sewage and water infrastructure, otherwise we will be in it up to our noses!

But we have progressed with the Essex pump debacle (see the article by the Hoedspruit Chamber).

The Hoedspruit Private Hospital is also progressing at a fair tick, which is also mentioned in the Hoedspruit Chamber article.

My follow-up on Mark Montgomery's frightening experience and subsequent hospitalisation after a crocodile attack (as reported), is a good one. He's now

back doing freelance work and has done some walking trails as well. He is still doing some therapy on some of his fingers, and finger joints. After the groin flap surgery (because of some necrotic meat on the one finger), which worked, but not 100%, Mark went to a Dr van Wyk in White River (as Mark terms him, a 'stem cell doctor'). Within eight sessions, and three weeks later, there was a major improvement, and the wounds on the hand healed well. So, all looking good on the comeback trail! Well done, Mark.

The matrics are starting their exams soon – Kruger2Canyon News wishes them all well.

So, with nerves on a string, we go into the weekend with great hope that once again our boys can lift the trophy for a record fourth time! The pressure of the nation on this group of super heroes is unbelievable, and we just hope and pray that the exertion of the last two games (France and England) has not sapped the drive in the soul. We are all standing united egging them on.

Where are those tranquilizers!?

Go Bokke!!!



Mark Bishop - Editor

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Quiz

- Which author wrote the screenplay for Bond's 'You Only Live Twice'?
- Dalmatian dogs are born with what colour coats?
- Edward de Bono, a Maltese doctor, developed what concept?
- The song 'I Talk to the Trees' comes from what musical?
- What is the capitol of Ghana?
- In Greek mythology who was the Goddess of Chastity?
- What was Madam Curie's husband's name?
- The USA president lives in the White House. Who lived in the Blue House?
- What does an aronophobe fear?
- In what city is the world's largest carpet manufacturer?
- What element was named after the Greek word for green?
- What hotel hosted the first Oscar Awards ceremony?
- The name of which Indian city means 'village of boiled beans'?
- James Hoban designed what?
- Semiology is the study of what?
- What country has its map on its flag?
- Lucknow is a city in India - and what other country?
- What invention was nicknamed the Noisy Serpent in 1902?
- In what city was Audrey Hepburn born?
- In what country was the world's first wildlife sanctuary set up?
- Who did Valerie Solanas shoot on Jun 3rd, 1968, in New York?
- Which Shakespeare character says, "Blow winds and crack your cheeks"?
- Amaxophobia is the fear of what?
- Whose ghost appears twice in Shakespeare's 'Julius Caesar'?



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Snaring in Kruger National Park spikes more than 200% amid socioeconomic crisis

Cont. from page 1

Minister: 'All reports are actioned'

The park's media desk said it was considering our detailed requests for immediate comment, but did not respond by the deadline at the weekend. However, "various ongoing" programmes were aimed at removing snares in high-risk areas, the minister said. These included "regular patrols by field rangers, daily fence-monitoring patrols and specific snare-removal patrols carried out by South African National Parks (SANParks) honorary rangers".

If snared or injured animals were found, they were reported to SANParks' emergency hotline, "which operates 24/7", she said. "All reports are actioned" for the attention of the section ranger, the Veterinary Wildlife Services Unit, or state veterinary services, she added.

Kruger National Park spokesperson Phaahla said: "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. That is the climate the park is operating in."

Advocacy work was undertaken by their socioeconomic transformation team "to sensitise, educate and get commitment from communities to assist with the problem. Sophisticated criminal syndicates use intimidation, money and lack of law enforcement to carry out their nefarious acts."

The park was building "key" partnerships with "relevant stakeholders including law enforcement agencies" in the hope of resolving the surge.

Wanted: \$3 billion annually to protect lions alone

Endangered Wildlife Trust researcher Sam Nicholson told Daily Maverick that the country was a stronghold for some of Africa's least socio-politically fragile lions. The continent's maned ambassador, however, largely roamed those countries in the bot-

tom quarter of global wealth rankings.

This underscored the well-known fact that poverty pressures on wildlife, including lions, were not unique to South Africa.

Calling for \$3 billion a year to save fenced and unfenced wild lions, the researcher and her co-authors recently published the first study to assess the social, political and ecological threats to confronting this big cat across the continent.

The *Nature*-published study did not focus on snaring, instead highlighting multiple threats, but it did say that lions in Mozambique's Limpopo National Park — right next to Kruger — were being driven to near-extinction due to increased poaching for lion parts. Bushmeat snaring likely caused local lion extinctions in Zambia's Nsumbu National Park.

The authors have called on affluent nations to provide greater support to poorer countries with rich biodiversity.

"This research," they argued, "underscores

the moral responsibility of wealthier nations to contribute more significantly to lion conservation."

To aid the complex task of protecting Kruger's cherished diversity, from lions to leopard tortoises, solutions have been reported by Daily Maverick. These include ensuring enough trained rangers, more private-sector partners, and the goose that lays the golden egg: properly managed, sufficient funds.

Kruger's snaring surge is a symptom of deeper fractures. And the call is not just for intervention — it is to recognise that the problem strikes at the heart of one of the world's most significant wildlife economies. It is hard to imagine that South Africa can solve it alone.

This article was previously published by the Daily Maverick.



Ref: O21/5/2

NATIONAL ASSEMBLY
(For written reply)

QUESTION NO. 3084 (NW4151E)
INTERNAL QUESTION PAPER NO. 33 of 2023

DATE OF PUBLICATION: 22 September 2023

Ms H S Winkler (DA) to ask the Minister of Forestry, Fisheries and the Environment:

- (1) How prevalent is snaring (a) in and (b) on the borders of the Kruger National Park;
- (2) whether snaring is concentrated in any particular areas; if not, what is the position in this regard; if so, what are the relevant details;
- (3) whether there are any discernible snaring trends, if not, what is the position in this regard; if so, what are the relevant details;
- (4) whether snaring is increasing or decreasing overall and/or in any particular areas; if not, what is the position in this regard; if so, what are the relevant details;
- (5) what total number of snares were detected and/or removed in the Kruger National Park in the (a) 2020, (b) 2021 and (c) 2022 calendar years?

3084. THE MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT REPLIES:

- 1) (a) Snaring in the Kruger National Park (KNP) is limited within a few kilometres from the perimeter boundary fence.
- (b) Most snares are set along the boundaries of the KNP. However, snared animals are seen throughout the Park as they often move vast distances with snares attached to them. Various programmes have been ongoing to remove snares in high-risk areas, and these

- 2) Over the past three years, snaring has been most prevalent in the sections along the far Northern boundary of KNP, namely: Pafuri Section and the far Western boundary of KNP, namely: Pretoriuskop, Stolsnek and Skukuza Section. Eleven sections reported snares during 2020, 2021 and 2022; and all of these are sections that are situated along the boundary of the Park.
- 3) Snaring trends are linked to seasons, specifically fire and water availability. It is most prevalent during the drier months of the year when animals frequent specific water sources such as rivers and/or streams along the boundary and recently burnt areas. Snares are often set along the various paths leading to the water sources and burnt areas. Therefore, there is an increase in snaring during the drier months of the year.
- 4) Snaring has increased since 2020. No specific research has been undertaken to understand the primary drivers of snaring incidents, but we notice the increase coincides with the COVID-19 pandemic and increased poverty amongst communities adjacent to the Kruger Park.
- 5) (a) In 2020, a total of 2 407 snares were removed.
(b) In 2021, a total of 4 454 snares were removed.
(c) In 2022, a total of 7 270 snares were removed.

MS B D CREECY, MP
MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT
DATE: 23.10.2023

NATIONAL ASSEMBLY

QUESTION NO. 3084

NW4151E

NATIONAL ASSEMBLY

QUESTION NO. 3084

NW4151E

Hume's herd of 2 000 African rhinos get a last-minute 'lifeline' in major purchase and rewilding project

Tony Carnie

When John Hume put his 2 000 rhinos up for auction in April, he didn't receive a single bid. Last month, the NGO African Parks announced it would purchase the world's largest population of privately owned white rhinos, which will be 'rewilded' over 10 years.

Africa's beleaguered rhinos have been thrown a significant lifeline with the announcement that nearly 2 000 semi-wild rhinos owned by South African rhino breeder John Hume will be "rewilded" into reserves across South Africa and other parts of the continent over the next 10 years.

African Parks, a private Johannesburg-based conservation NGO that manages 22 protected areas in partnership with 12 governments across Africa, confirmed on Monday, 4 September that it had "stepped in as the new owner of the world's largest private captive rhino breeding operation", the Platinum Rhino project, a 7 800 hectare property in North West province.

The project was started by Hume, a wealthy property developer turned wildlife rancher who has earned both opprobrium and praise for his decades-old initiative to breed rhinos, harvest their horns without harming them physically and then sell the horns to buyers in the Far East.

However, with no indication that the majority of member states of the Convention on International Trade in Endangered Species (CITES) are willing to overturn the 1974 international ban on the trade in rhino horns, Hume announced earlier this year that he had run out of funds to keep his project going and was offering them for sale via an online auction.

But by all accounts, very few bidders showed any interest, casting the future security and welfare of the about 2 000 rhinos into jeopardy.

That changed when African Parks CEO Peter Fearnhead confirmed in a statement that his organisation had agreed to purchase the Platinum Rhino farm and all its rhinos – with the endorsement of the South African Government and the African Rhino Specialist Group of the International Union for the Conservation of Nature (IUCN).

Dr Mike Knight, chairman of the IUCN specialist group, told Daily Maverick that he regarded African Parks as a credible and responsible conservation organisation and was optimistic that the animals could be successfully rewilded.

"The key thing will be finding conservation areas that are large enough and secure from poaching... The conservation sector is delighted that African Parks can provide a credible solution for this important population, and a significant lifeline for this Near Threatened species."

African Parks – without disclosing any of the financial arrangements of the deal – said it had agreed to purchase the farm and all 2 000 southern white rhinos with one clear objective: "To rewild these rhino over the next 10 years to well-managed and secure areas, establishing or supplementing strategic populations, thereby de-risking the future of the species".

The opening bid for the rhinos at auction was set at \$10 million (R182 million) though Hume was reportedly claimed to have spent \$150 million on rhino breeding over the past 30 years.

Following the deal with African Parks, Hume's breeding programme, based in North West, will be phased out and the project will end once all the rhinos are released into the wild.

"This is one of the largest continent-wide rewilding endeavours to occur for any spe-



Several of the 2,000 white rhino that will be rewilded over the next 10 years.

Photo: Brent Stirton



Southern white rhino calf

Photo: Brent Stirton / African Parks



White Rhino at Akagera National Park in Rwanda

Photo: Drew Bantlin



White rhino cow and calf

Photo: Brent Stirton / African Parks

cies," the NGO said, noting that Hume's captive-bred rhinos represented nearly 15% of the world's remaining wild rhino population.

"As a result of financial stress, Platinum Rhino was put up for auction on the 26th of April 2023, but did not receive any bids, put-

ting these rhinos at serious risk of poaching and fragmentation."

"Given African Parks' experience in effectively managing protected areas and carrying out wildlife translocations at scale, including bringing rhino back to Rwanda, Malawi and Democratic Republic of the

Congo, African Parks was approached by numerous concerned individuals from the conservation sector to provide a solution to prevent a potential conservation crisis, and to help secure the future for a species in decline."

"After conducting a thorough due diligence and with the support of the South African government, as well as having secured emergency funding to make the transaction possible, African Parks agreed to purchase the farm and all 2 000 rhinos."

"African Parks had no intention of being the owner of a captive rhino breeding operation with 2 000 rhinos. However, we fully recognise the moral imperative of finding a solution for these animals, so that they can once again play their integral role in fully functioning ecosystems," said Fearnhead.

"The scale of this undertaking is simply enormous, and therefore daunting. However, it is equally one of the most exciting and globally strategic conservation opportunities. We will be working with multiple governments, funding partners and conservation organisations, who are committed to making this rewilding vision a reality."

'Easy' rewilding

Dr Richard Emslie, a Pietermaritzburg-based rhino conservation expert, told Daily Maverick he was confident that the mostly captive-bred rhinos could be "rewilded very easily".

"I would call them 'semi-wild' rather than 'semi-captive'. It's interesting that some of John Hume's black rhinos were sent to a property in Eswatini a few years ago – and within just a few months of their arrival one of the females had been mated by a wild rhino. So, I strongly suspect his white rhinos will also do fine. Obviously, this will depend on where they are going."

Emslie said he also believed that Hume deserved credit for building up such a large population and protecting them at his own expense, at a time when other state-managed rhino populations had been decimated.

Barbara Creecy, the national Minister of Environmental Affairs was in Kenya for a climate change meeting and could not be reached for comment.

However, African Parks quoted her in a media statement as congratulating both John Hume and African Parks for "reaching this important agreement which facilitates a conservation solution for the rhino currently in a captive facility".

"Our government is guided in our approach to conservation by the UN Convention on Biodiversity and our own white paper. In this regard we are ready to support African Parks and other partners with technical and scientific advice in developing a conservation solution that includes translocating the animals over a period of time to suitable parks and community conservancies in South Africa and on the African continent," the statement said.

The white rhino as a species is under extreme pressure, especially in South Africa, because of poaching. White rhinos historically consisted of two subspecies: the southern white and the northern white. The northern white rhino is functionally extinct, with just two non-breeding females in captivity in Kenya.

Southern white rhino reached an all-time low of 30 to 40 animals in the 1930s, but through effective conservation measures, increased to about 20 000 individuals by 2012. However, with the dramatic rise in poaching for their horns for the illegal wildlife trade, their numbers have fallen to below 13 000 today.

This article was previously published in the Daily Maverick.

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NTSIRI. GREATER KRUGER. R 5 500 000
BIG 5
Beds 3 | Bath 2 | Floor size: 120 m²

50% Share - This is your perfect bush hide-away! Ntsiri 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 14 000 000
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



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.

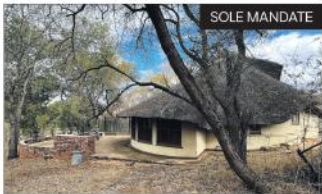
Jason Jones - 083 267 4794 Ref: 2143428



RAPTOR'S VIEW WILDLIFE R 5 300 000
ESTATE
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



INGWELALA, BIG 5 R 3 300 000
GREATER KRUGER
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 Nthlarami river. The open patio, firepit & braai area looks toward the riverbed.

Yvette Thompson - 083 655 7176 Ref: 2187783



MODITLO WILDLIFE ESTATE, R 5 500 000
BIG 4
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



ELEPHANT ROCK ECO R 650 000
ESTATE
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



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

This tranquil home is ideally located within 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 R 3 250 000
RESERVE, BIG 4
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 R 5 690 000
HOUSE, HOEDSPRUIT
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 3 775 000
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



RAPTOR'S VIEW WILDLIFE R 6 300 000
ESTATE
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: 2178626



LISSATABA R 4 900 000
Bedrooms 5 | Bathrooms 5.5 | Floor size: 500 m²

The main building has an open plan kitchen, dining and two lounge areas, pantry, scullery, guest toilet and main en-suite bedroom. The double storey guest unit is privately located and it has 4 en-suite bedrooms. The large patio and pool deck lets you enjoy the mountain views.

Jason Jones - 083 267 4794 Ref: 2170282



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



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

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Indigenous foods study busts ‘poverty’ myth – they could help plug nutrition gap and control diseases

Onke Ngcuka

Foods once considered medicine have been neglected by the South African population; leaving a nutrition, sustainable diet and food security gap – these challenges resulting in one and a half million deaths in the country, a study released in the context of World Food Day has found.

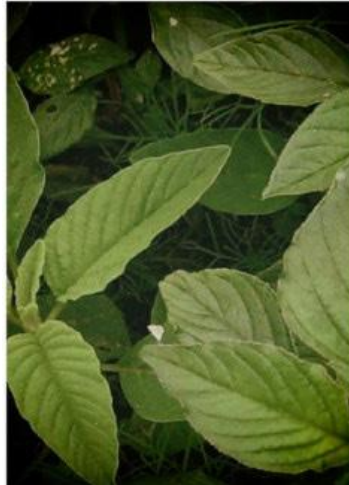
The study titled “A Systematic Review of Indigenous Food Plant Usage in Southern Africa” was authored by Zoe Nomakhushe Nxusani, Mthokozisi Kwazi Zuma and Xikombiso Gertrude Mbhenyane. It focused on those in rural communities, where indigenous foods and production are more prevalent, and looked into the different factors influencing the availability, consumption, use, preparation, harvesting, beliefs and preservations of indigenous foods.

“Inadequate intake of fruits and vegetables contribute to a burden of diseases, resulting in death from gastrointestinal cancer, ischaemic cardiac disease, and strokes. However, there is a significant proportion of diverse indigenous foods available in southern Africa that has been neglected, resulting in food insecurity in the countries,” the study said.

One of the authors, Mbhenyane, the Department of Science and Innovation-National Research Foundation South African research chair in food environments, nutrition and health, told Daily Maverick that South Africa had a problem of food insecurity and overnutrition (those with non-communicable diseases) at the same time, and that indigenous foods could play a role in addressing food insecurity and preventing non-communicable diseases.

This was because indigenous foods “contain micronutrients and phytochemicals, which help your heart to be healthy and prevent fat clogging”.

“Indigenous foods are healthy and prevent diseases. A study done in the East-



Amaranthus leaves A street vendor in the Thohoyandou Town Open Market in Limpopo, 2016



Photo: Mr Mahumela, UNIVEN librarian

ern Cape and Limpopo showed that there were indigenous crops used to treat and prevent particular diseases.

“Most people think that indigenous foods are for poor people. When you go to the supermarket, you have limited choices for green vegetables. We need to have better production and better access of indigenous foods, even in urban areas.”

Mbhenyane added that while conducting the study, she found that people were keen to incorporate indigenous foods into their diets, but that people buy what they can access; stressing that most formalised markets did not make room for indigenous foods. Some markets had clauses preventing the sourcing of locally produced indigenous foods.

Findings from the study showed that availability and accessibility were among the major factors that influence the consumption of indigenous foods.

Southern Africa has a large variety of indigenous foods, with a separate study

finding that there are 23 000 different plant species in the region, 137 of which are edible. Of these, cowpeas, pumpkin leaves, and blackjack are the most commonly consumed.

South Africa consumes mainly blackjack, amaranth, African cabbage and watermelon. Cowpeas and sweet potatoes are considered to be the most traditional indigenous foods due to their commercial production and therefore accessibility, the study found.

Mbhenyane said growing these foods was mainly concentrated in Limpopo, the Eastern Cape and KwaZulu-Natal, as the recent census showed that this was where most of the indigenous foods were produced due to the prevalence of small-scale farming and land accessibility.

Limpopo also was the highest consumer of indigenous foods, at two to three times per week. The general consumers of these foods were those in rural areas, mainly the older generation and unem-

ployed people, while those who are employed perceived indigenous foods as “poverty foods”.

A decline in and limitation of indigenous foods was attributed to policy gaps, decreased accessibility, urbanisation, lack of preparation and knowledge, and nutritional content knowledge, the study said.

“The fact that southern African populations do not value indigenous foods and their potential advantages appears to be a significant barrier,” it noted.

“Indigenous food plants provide various social functions; they are crucial to food supply diversification efforts, and they improve food and nutrition security.”

This article was previously published in the Daily Maverick

Navigating the future: 10 best careers to pursue

AI perspective ‘correspondent’

In an ever-evolving job market and in the wake of significant global changes, individuals must adapt and chart their career paths strategically. The future promises exciting opportunities across various sectors, but the key is to identify the ten best careers to ensure professional success and fulfillment.

Artificial Intelligence and Machine Learning Engineer

The AI and machine learning field is booming, with organizations harnessing the power of data-driven decision-making. Professionals skilled in creating intelligent systems will continue to be in high demand as technology becomes increasingly integral to businesses.

Data Scientist

Data is often considered the new oil, and data scientists are the prospectors. The ability to extract meaningful insights from vast datasets is an invaluable skill in today's data-driven world. The demand for data scientists spans industries, from healthcare to finance.

Renewable Energy Specialist

With the pressing need to combat climate change, renewable energy specialists play a crucial role in developing and implementing sustainable energy solutions. Green technologies are becoming increasingly cost-effective, ensuring long-term job security in this field.

Healthcare Professional

The healthcare industry remains a stable and vital sector, with a diverse range of professions. Doctors, nurses, pharmacists, and healthcare administrators continue to be in high demand, with the aging population and global health challenges driving growth.

Software Developer

In the age of digitization, software developers remain integral to almost every industry. From creating mobile apps to complex enterprise systems, this career provides versatility and the opportunity to innovate.

Cybersecurity Analyst

As cyber threats become more sophisticated, the demand for cybersecurity professionals is on the rise. Protecting sensitive information and critical systems is paramount, making this an indispensable career choice.

Environmental and Sustainability Specialist

With growing awareness of environmental issues, businesses and governments are prioritizing sustainability. Specialists in this field will be needed to ensure responsible resource management, environmental compliance, and corporate sustainability goals.

Telemedicine Provider

The COVID-19 pandemic accelerated the adoption of telemedicine. Healthcare providers who

adapt to this trend are well-positioned for future success, as telehealth continues to play a significant role in healthcare delivery.

Blockchain Developer

Blockchain technology has the potential to disrupt various industries, including finance, supply chain, and healthcare. Blockchain developers can create secure, transparent, and decentralized systems, opening up exciting opportunities.

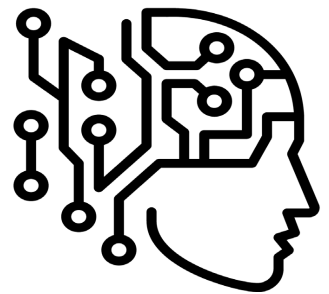
Robotics Engineer

Automation and robotics are transforming industries from manufacturing to logistics. Robotics engineers design, build, and maintain robots and automation systems, ensuring that they operate efficiently and safely.

To succeed in these careers, individuals must focus on acquiring relevant skills and adaptability, as the job market continues to evolve. Continuous learning and development are key to staying competitive in these fields.

Moreover, cultivating skills in collaboration, critical thinking, and problem-solving remains universally important, as the modern workplace increasingly values these skills in addition to technical expertise.

The COVID-19 pandemic has also changed the way many businesses operate, emphasizing remote work and the importance of digital communication. As a result, tech-savvy professionals with excellent digital literacy and remote collaboration skills are well-suited for the new



world of work.

On the other hand, the emphasis on sustainability and environmental consciousness is driving the demand for professionals with expertise in green technologies, renewable energy, and sustainable practices. Businesses are seeking environmentally responsible solutions, and the workforce must adapt to this shift.

In conclusion, the job market of the future offers a wide range of opportunities for those who are willing to invest in their education and skills. The ten careers mentioned above, represent some of the most promising avenues, but the key to success lies in personal commitment and adaptability. As we continue to navigate an ever-changing professional landscape, the best careers are those that align with personal passions, offer job security, and contribute to a better future for all.

Credit: ChatGPT, chat.openai.com

Crime convergence: unveiling the intricate web linking drugs, illegal wildlife trade, guns, human trafficking and corruption.

Investigative correspondent

In the shadowy underbelly of global criminal enterprises, with tentacles that reach deep into southern Africa, a disturbing convergence of illicit activities is unfolding, weaving a complex web that links drug trafficking, illegal wildlife trade, guns, human trafficking, and corruption. As this sinister interplay intensifies, the world is grappling with the interconnected challenges posed by these malevolent forces.

The nexus between these seemingly distinct crimes is anything but coincidental. Drug cartels, wildlife traffickers, guns, human smugglers, and corruption, have found common ground in their pursuit of enormous profits and their willingness to exploit vulnerable populations. At the heart of this convergence are the shared routes, networks, and clandestine channels aided by corruption, that facilitate the movement of contraband and humans across borders.

The drug-wildlife trafficking connection

The illegal drug trade and wildlife trafficking are often interlinked through their use of transportation networks and shared smuggling routes. Large shipments of drugs,

such as cocaine or heroin, are often concealed alongside exotic animals or animal parts, exploiting the same infrastructure. The wildlife trade is used as a smokescreen, diverting law enforcement's attention while drug shipments pass through undetected. This connection poses a severe threat to both endangered species and global public health – it is getting to a point now in South Africa, where government admits that it poses a massive threat to national security and our biodiversity.

Human trafficking's intricate role

Human trafficking serves as one of the pillars of this unholy alliance, providing criminal organizations with a vast pool of cheap labour and sex trafficking victims. Migrants, the vulnerable, and refugees, desperate for a chance at a better life, are often subjected to harrowing journeys, where they become prey to human traffickers and may be exploited for various criminal activities.

Economic motivations

Economic incentives are at the core of this convergence. These criminal enterprises are lured by the promise of colossal profits. The illegal drug trade generates billions of

dollars annually, while the illegal wildlife trade is estimated to be worth a staggering USD 7 - 20 billion per annum. Human trafficking, too, is a lucrative industry, with profits driven by the exploitation of vulnerable individuals. The interconnection of these trades amplifies the economic gains for these criminal networks.

Impacts on society

The convergence of these crimes has profound repercussions for society. The illegal drug trade fuels addiction, violence, and instability in regions across the globe. Wildlife trafficking threatens biodiversity and ecosystem stability. Human trafficking destroys lives, fostering a climate of fear and exploitation. Corruption means that potentially anything goes. Together, these crimes exacerbate the cycle of poverty and violence in affected communities, making it an even more challenging issue to combat.

Global response

Efforts to counteract this convergence require a comprehensive, transnational approach. Enhanced law enforcement cooperation, intelligence sharing, and stricter border controls are necessary. Public

awareness campaigns and community engagement initiatives are vital in combatting the economic drivers of these crimes. Furthermore, addressing the root causes, such as poverty and inequality, is essential to reducing the vulnerabilities that enable these illicit activities to thrive.

In conclusion, the crime convergence of drugs, illegal wildlife trade, human trafficking, weapons and corruption, forms a multifaceted challenge that calls for urgent attention and international cooperation. It is imperative that governments, law enforcement agencies, and civil society work together to dismantle this intricate web of criminality and safeguard our planet and its inhabitants from the pernicious forces at play.

This is where, on a local scale, Farmwatch and Townwatch are massive forces in protecting us as residents in the area, protecting our stock and wildlife through their monitoring and preventative measures, and ultimately being a force against the criminal elements establishing a foothold in our community.

The recipe for this month is mujadara - Lebanese rice



What you will need

1 cup brown lentils and 1 cup basmati rice
 ½ cup olive oil
 3 medium onions thinly sliced
 1 tsp cumin seeds
 1 tsp coriander seeds
 1 stick cinnamon
 1 tsp chili powder
 1 tsp turmeric powder
 1 tsp cumin powder
 1 tsp allspice powder
 Salt to taste, 3 cups lentil stock - stock saved from having boiled the lentils

Instructions

Rinse the lentils under cold water and remove any debris. In a pot, combine the rinsed lentils, water, and a pinch of salt. Bring to the boil, then reduce the heat and let the lentils simmer until tender but not mushy, usually about 20-25 minutes. Drain any excess water and set the cooked lentils aside.

Save the lentil water (as stock) to later use to cook the rice. While the lentils are cooking, heat the olive oil in a large skillet over medium heat. Add the thinly sliced onions and cook, stirring frequently, until the onions turn deep golden brown and caramelized. This might take around 20 minutes.

Remove the caramelized onions from the skillet and place them on paper towels to absorb excess oil.

Rinse the basmati rice under cold water until the water runs clear. Heat a separate pan and roast cumin seeds, coriander seeds, and cinnamon sticks. Roast until fragrant. Next, add the rinsed rice, olive oil, chili powder, turmeric, cumin powder, allspice, and a teaspoon of salt. Stir to coat the rice with oil and spices, then add the cooked lentils and stock water. Bring the lentil-rice mixture to a gentle simmer.

Cover the pot with a tight-fitting lid and cook over low heat for about 15-20 minutes, or until the rice is tender and has absorbed the liquid. Remove the pot from the heat and let it sit, covered, for an additional 10 minutes to allow the flavours to meld. Gently fluff the mujadara with a fork to separate the grains. Transfer the mujadara to a serving dish.

Garnish: with the reserved caramelized onions, pine nuts, and freshly chopped parsley.

Serving: Serve the mujadara warm as a main dish or a side, alongside a dollop of (vegan) yogurt, a squeeze of lemon juice, or a side of fresh pita bread.

The combination of earthy lentils, fragrant spices, and sweet caramelized onions will transport your taste buds to the heart of Middle Eastern cuisine. Enjoy!

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Special guest Martin Bester

Saturday, 11 November 2023

Drakensig School | Hoedspruit

Gates open: 15h00 | Show starts: 16h00



**Ticket pricing | General admission:
Early bird: R350 [for first 500 tickets]
Thereafter: R450 | Covered seating: R550**

in association with



Africa Wild Music Festival – 11 November 2023

Kruger2Canyon News (in collaboration with 'Love the Hoed') is a proud co-media sponsor of the **Africa Wild Music Festival** in Hoedspruit. The production will be the first of its kind in the Limpopo Province, and will be hosted by Africa Wild Entertainment (AWE) on the **11th November**. It will feature three of South Africa's top music artists in the country on the same bill. AWE promises to deliver this quality event on a scale never before seen in Hoedspruit or Limpopo, introducing a new standard in entertainment,

which is specifically aimed at attracting a mass of non-organic tourism to Hoedspruit. "Our objective is to create a series of truly world class events in Hoedspruit over time, and in so doing to showcase the unique and spectacular character of this location to an altogether different tourist market. The market readiness of this place is unusually good, given that the primary industry in Hoedspruit and surrounding areas is tourism, and the merits of the environment make it possible to establish a truly unique

and differentiated event property here," says company principal Roddy Quinn. "This will directly benefit the local economy and will give tourists one more reason to choose Hoedspruit as a destination of choice."

Roddy Quinn is one of the South Africa's leading event producers and artist managers, and has toured with both leading international and local artists around the world for decades. His portfolio includes international artists such as Queen, Whitney Houston, Depeche Mode, Dave

Chapelle, Imagine Dragons to name but a few, and his credentials promise to bring significant added value to the broader Hoedspruit community.

The beneficiaries of this event will be Town Watch and Farm Watch, which further gives back to the local community, thereby ensuring the security and wellbeing of all in the area.

Spotlight - From the Chamber



Before the clean-up (above) and the areas after the clean up. Thanks to Marie Helm, Colonel Gherbavaz and Barney van Dijk (above left to right).



Images supplied

Essex pump clean-up project

During the September water meeting attended by Hoedspruit Chamber/Sakekamer (HCS), the Department of Defence made an urgent request for the Essex water pump station to be cleaned up as a preventative measure to minimise the chances of future failure. The plant overgrowth around the station has reached alarming levels and stones and vegetation had collected around the inlet grids, which would cause issues if left unattended.

HCS raised their hand as a volunteer to have the cleaning work done, as the Department of Public Works (DPW) could not attend to it as a matter of urgency.

The project plan was shared with the community, and requests for sponsorship was put out. In true Hoedspruit spirit, the community and businesses jumped in to get the resources and tools necessary to get the job done.

The start of the project was delayed due to rainy weather. The teams eventually went in on Tuesday, 17th October, and completed all the work by that Thursday. On Friday, HCS and Colonel Gherbavaz from AFB Hoedspruit did a site inspection. The transformation was amazing. Everyone did such a great job and the area and inlet were restored to an acceptable functional state.

The hope is that DPW will commit itself and not neglect the pre-emptive maintenance going forward. HCS would like to take the opportunity to thank all the wonderful sponsors and volunteers that got involved: AFB Hoedspruit and Col. Gherbavaz for the daily lunch packs, Le Bamba for the cooldrinks and water, Maruleng Local Municipality for the use of their TLB, Matts and the team from Bergvlei Farm, Jaco and the team from Sable Tours, Craig from Paintsmiths, Kruger2Canyon News and Kitcor for the cooler bags, Dave Berry, Emil Scheepers Prokureurs, Marianne, Belinda Bignaut, Kitcor, Brian Brink, Sue and Peter Greef, Deon Pansegrouw and all the anonymous people that donated money towards tools, PPE and fuel.

The surplus funds were donated towards the ongoing pothole projects in and around town. A very special thank you goes out to Marie Helm and Barney van Dyk, for coordinating and managing the project. Their dedication is awe inspiring and they have, and will always be, invaluable assets to our town and its people.

Our next projects will focus on other areas

that need urgent attention, and will include the oxidation pond overgrowth in Drakensig, and the sewerage pump cleanup in Leguan street. Jaco Scheepers from Sable Tours has pro-actively built "contraptions" to assist with the work, and funds are required to cover those costs.

If individuals or businesses want to get involved, contact Lizmari on 083 459 0526. Donations can be made to the following bank account using the reference 'PONDS': Hoedspruit Chambers, FNB Hoedspruit, account number 63040356148.

Hoedspruit Private Hospital – a pinnacle of medical excellence

The Project Manager, Carien Taute, of the Hoedspruit Private Hospital invited auxiliary service providers in Hoedspruit to attend an information session on 20 October 2023. The agenda included discussing specialists already committed to the Hoedspruit Private Hospital, the Hoedspruit Medical Complex layout, and lease information for interested physiotherapists, occupational therapists, nurses, speech therapists, psychologists and more. The Hoedspruit Medical Complex is a separate building adjacent to the hospital. It will be designed to accommodate a newly built Ampath Laboratory, interested specialists, general practitioners, dentists and auxiliary service providers.

Questions were asked, and information shared on the auxiliary services that will be available.

This follows the recently published design renderings on Facebook that was extremely well received by the public. The design captures the look and feel of a traditional medical establishment, while representing the allure of bushveld living. The interior design and layout is well thought out and professional. These are some of the questions asked:

Q: Which specialists have been appointed and are there any further that will join the team?

A: There will be full time and visiting specialists. Some have been confirmed and others still need to be confirmed or need to be sourced. Enquiries from all providers that might be interested in filling the unconfirmed specialities, are welcomed. Confirmed specialists include orthopaedic surgeon, OBGYN, general surgeon, paediatrician, anaesthetists, intensivist and emergency medicine. Con-

firmed visiting specialists include a paediatrician, maxilla facial and oral surgeon, pain clinic, nephrologist, pulmonologist, orthopaedic surgeon, intensivist and neurosurgeon. Negotiations and outstanding appointments are ophthalmologist, OBGYN, paediatrician, general surgeon, orthopaedic surgeon, physician, ENT, dermatologist, cardiologist, urologist, and plastic surgeon.

Q: What facilities will be available?

A: The Hoedspruit Hospital will have 62 beds, which include 4 ICU beds, 4 NNICU beds, 3 delivery beds, wards, 24/7 emergency unit, radiology, 4 theatres, radiology and consulting rooms for specialists working fulltime in the hospital. The Hoedspruit Medical Complex will offer an Ampath Laboratory and consulting rooms for interested specialists, general practitioners, dentists and auxiliary service providers.

There will also be a rehabilitation area for patients who will have access to multiple post-surgery disciplines to assist in the recovery process. The hospital will also be fully solar powered with a backup generator in case of emergency.

Q: What is some information on the layout and lease information for auxiliary services?

A: The medical complex will have dedicated doctor's rooms and shareable session rooms for disciplines that may require it. Service providers can specify how they want to use a space and outfit the space with their own furniture, décor, etc. The spaces start from 25m² and the cost is around R160 p/m² and an added cost of R10 p/m² for access to the solar system. Consulting rooms will be open from Mondays to Fridays from 8am to 5pm, but service providers may do longer hours. Interested parties wanting more information can contact Carien on 083 630 3607 or email her on carien@buzztzn.co.za

Q: Will the hospital be opened in phases?

A: No, the hospital will be completed and then opened. The estimated opening date (all things being equal) will be towards the end of 2024. Updates on the time schedule will be shared with the public.

Q: How many jobs will the hospital create?

A: The precise number is currently hard to commit to. The aim is to start recruiting

management level staff about 6 months before opening, and then general staff about 3 months before opening. This will allow ample time to train all staff.

Q: Will the opening of the hospital impact negatively on other medical professionals in Hoedspruit?

A: Absolutely not. Local service providers have been approached to relocate if they should choose to. No-one is under any obligation - they can stay where they are and still work in the hospital as and when necessary. The hospital is also an attraction of outside patients who seek high quality, comprehensive, specialist medical care, which was not previously available in our area. This will focus attention on the existing high-quality professionals as well and increase local referrals and after care services.

Q: What other benefits will there be from having a hospital in town?

A: Apart from the multiple new specialists and emergency unit, or becoming a prominent medical care facility in our part of the province, another important benefit is medical aid benefits for patients. Many consumers cannot afford full medical aid and resort to hospital plans for emergency medical care. In-hospital benefits will then be affected where someone will not be afforded the same courtesy if they visit a doctor/specialist out of hospital. Now patients can enjoy that benefit right here in Hoedspruit. The hospital also provides an invaluable new attribute for investor consideration in our town.

Q: Hoedspruit water and sewerage infrastructure are currently buckling under the pressure of development, and further approvals from Maruleng Municipality. Will this project add more pressure?

A: No. The hospital will receive its water from the Hoedspruit Wildlife Estate and will also have an additional reservoir. The development has been approved by the Maruleng Municipality – they will communicate any additional requirements that may impact on the town's water requirements in the next 50 years, to the officials that are currently working on plans for the infrastructure. The hospital will also have their own sewage plant and treatment facility.

The Ring of Fire: beauty through the eyes of the beholder

Ben Coley

The Sun is the driving force behind almost every ecosystem on our planet. Its light, heat and movement across the sky are the pillars upon which life has evolved. We take it for granted, but it is the most important factor in our lives and without it, the world would be a dark, icy wasteland, almost devoid of life.

The Sun is a giant nuclear explosion that has been raging for billions of years. Its surface is a bubbling cauldron of molten plasma with temperatures reaching over 5 500°C. Deep within, the core of the Sun is closer to 15 000 000°C and is fusing millions of tonnes of hydrogen into helium every second. This nuclear reaction is the engine that drives the Sun, and is the process is the same in every other star we see twinkling in the night sky. It is ironic that our ever present, life-giving beacon, is an object that personifies the essence of destruction, and offers the perfect reminder that the forces of nature are not to be trifled with.

Despite its terrifying physical characteristics, the Sun has been and still is revered throughout cultures. For millennia it was worshiped, with ancient people giving thanks for its heat and light. Its rising, setting and path across the sky formed the basis of time-keeping, navigation and great festivals, many of which are still celebrated to this day, albeit for different reasons in today's world. Let us not forget that we even have a day named after this giant ball of fire.

The other most prominent celestial object in our skies is of course, the Moon. It takes the Earth 365,25 days to complete a full orbit around our parent star, whereas the Moon completes a lap of the Earth every 29,5 days. The Moon's position in relation to the Sun is what influences its phases, and, as we saw last month, drive the tides that dominate our oceans' relentless movement.

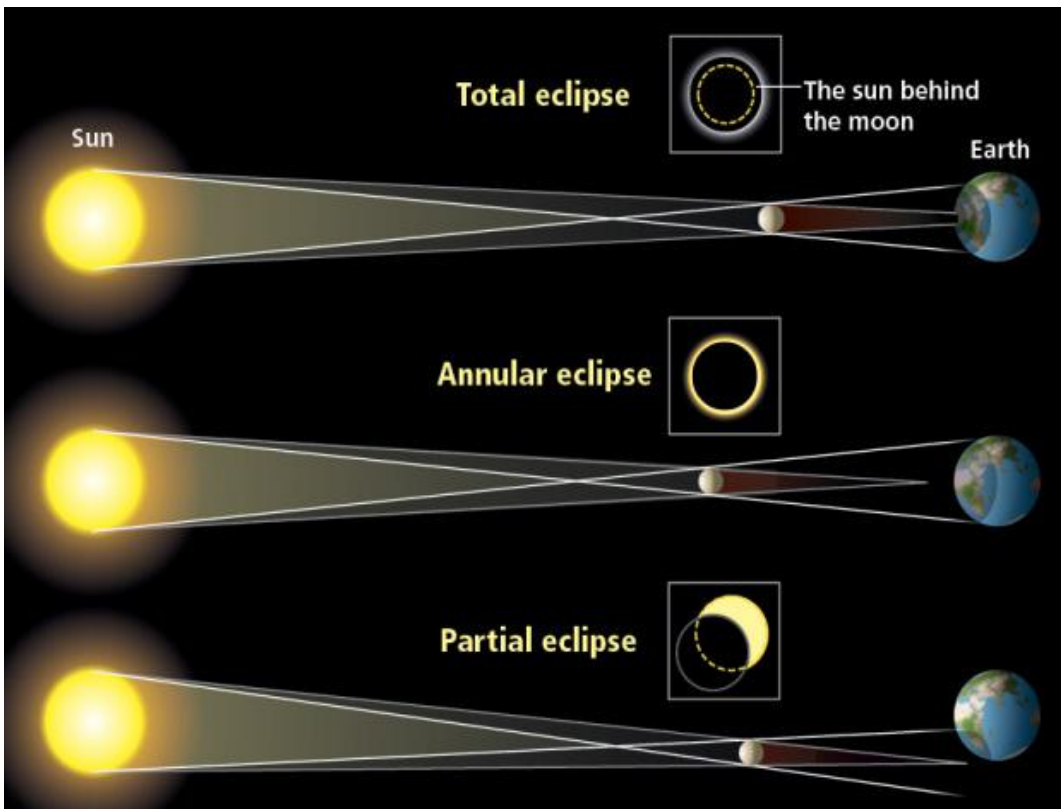
As the Moon travels around the Earth, twice a month the three objects line up in what is known as 'syzygy' (a great scrabble opportunity!). This happens at new and full moon and, when the angles are correct, lead to solar and lunar eclipses.

Lunar eclipses occur only when the Moon is full, and are visible anywhere in the world where it is dark, since it is the Earth's shadow that is cast upon the Moon. Solar eclipses occur at new Moon and have a much narrower path due to the much smaller shadow cast by the much smaller Moon. This means that to see a solar eclipse, a viewer must be in a specific spot on the globe at a specific time, known as the 'path of totality'.

A solar eclipse path is only a maximum of 200 kms wide. October's path stretched across parts of the western and central United States, passing directly through Albuquerque and San Antonio, across the Gulf of Mexico and through some of Central America, Columbia and Brazil, meaning that potentially millions of people were able to view this amazing spectacle.

To anyone in its path, the sight is somewhat eerie and disconcerting. Temperatures drop, winds die down and animals and birds become confused, and it is not uncommon to hear crickets and cicadas break into song. According to those who have witnessed this most unusual phenomenon, it prompts a feeling of unease and wonder. Perhaps it is best described as a true realisation that our existence pales in insignificance to the cosmic forces that have carved out our home over billions of years. It is a powerful and memorable experience that cannot really be described in simple English and truly does have to be seen to be fully understood.

This eclipse was slightly unusual in that it was an annular eclipse, stemming from the word 'annulus' meaning 'ring shaped'. The Moon is not always the same distance from



Eclipse types (above), annular eclipse (below) and eclipse path (bottom right)

the Earth and varies over a range of 40 000 kms. When the Moon is closest to us (at perigee), it looms large in the sky and when this coincides with a full Moon, it is known as a super Moon, seeming around 10% larger than normal. When the Moon is at apogee, or its furthest point, it seems slightly smaller. When this occurs in conjunction with a solar eclipse, the face of the Moon does not completely cover the Sun's surface, leaving an orange ring around its shadow, known colloquially as the 'ring of fire'.

The Moon is not the same size as the Sun despite what they look like in the sky. The Moon is 400 times smaller than the Sun, but also 400 times closer to earth, giving the optical illusion that they are equal in diameter. Each year, the Moon moves further from Earth at a rate of 38,1 cm/year. The Moon's gravitational pull is gradually slowing Earth's rotation and this energy is transferred to the Moon, causing it, in effect, to speed up and move into a higher orbit.

Millions of years from now, the Moon will have moved so far from the Earth, that total solar eclipses will no longer be possible, and

anyone still living here will only ever view annular eclipses.

Partial solar eclipses occur from two to five times a year, but total eclipses only once every 18 months or so. Such is their fascination, that people travel from far and wide to put themselves in the 'path of totality' to witness this amazing cosmic event. Below is a list of future total solar eclipses, but the next eclipse visible in South Africa will not be until 25th November 2030, so there is plenty of time to prepare if you do not fancy chasing one across the globe!



NB: NEVER LOOK DIRECTLY AT THE SUN. ONLY USE APPROVED SOLAR VIEWING GLASSES!!!

Date	Type	Path of Totality
8 th Apr 2024	Total	Mexico, Parts of Central & Eastern USA
2 nd Oct 2024	Annular	Chile, Argentina
17 th Feb 2026	Annular	Antarctica
12 th Aug 2026	Total	Iceland, Spain
6 th Feb 2027	Annular	Chile, Argentina, Parts of West Africa
2 nd Aug 2027	Total	Southern Spain, Morocco, Egypt, Saudi Arabia

Hearing or seeing birds has a positive effect on mental health, study finds



Hearing and seeing birds benefit mental health. Image (above left) Erik Karits Unsplash and Image (above right) - Zdenek Machacek Unsplash
Woodland Kingfisher, (bottom right) at Sun City - Image - Warren Little Getty Images

Jean-Marie Uys

A study published in October 2022 suggests that birdsong benefits mental health. Not only do these and other similar findings have implications for conservation and mental healthcare policies, but they could also inform urban planning that takes into consideration how humans can co-exist with nature in a fair and balanced way in urban spaces.

Everyday encounters with birdlife increase mental well-being for both people with and without depression, according to new research by King's College London, titled "Smartphone-based ecological momentary assessment reveals mental health benefits of birdlife".

The study suggests that hearing birdsong or seeing birds can be prescribed by professionals to prevent mental health difficulties or complement treatments.

Researchers particularly focused on depression, "which is the most common mental illness across the world and is predicted to become the first cause of global burden of disease by 2030". The researchers' findings are a step towards greater environmental and wildlife protection policies to preserve birds' natural and urban habitats, along with mental healthcare policies.

South Africa is reported to have an overall probable depression rate of 14,7% to 38,8%, which urges provincial level plans and resources "to reflect the burden of mental health problems" in each province. Additionally, the World Health Organization reports that low- and middle-income countries' treatment and support services for depression often lack implementation or are underdeveloped. It is estimated that 75% of people with mental disorders in these countries do not receive treatment.

Although there is no golden bullet yet to combating mental illness, birds and birdsong are suggested to be healthy contributors in putting a chirp in one's mood.

The inner workings of birdsong boosting well-being

The study comprised 1 292 participants who regularly tracked their moods and surroundings on the specially designed smartphone app, Urban Mind, which allowed researchers to sample their experiences in real-time, and in real-world contexts.

The data were collected between April 2018 and October 2021 and assessed whether participants described a positive mental state when they could see or hear birds. A positive association was observed between seeing or hearing birds, and momentary well-being during random intervals of assessment.

"Interestingly, we found that the positive effect of seeing or hearing birds on mental well-being was more pronounced when individuals were outdoors," the study reports.

Even though people are more likely to see or hear birds in green spaces, which might skew the data to reflect an overall effect of nature on mental well-being, researchers argue that the positive association between birdlife and mental well-being remains critically significant.

"In order to minimise such possibility, we modelled seeing trees, plants, and seeing or hearing water as additional confounding variables," write Ryan Hammoud and colleagues. "Critically, the results were still significant, providing support to a specific benefit of birdlife on mental well-being, above and beyond the well-established effect of green spaces."

The benefits of bird encounters indicated a lasting effect on mental health, as participants recorded high levels of well-being in their next assessment while they did not hear or see birds. However, the subsequent mood assessment indicated that the effect is not persistent, which strengthens the "possible causal link effect of birdlife on mental well-being".

Another 2022 study evaluating the effect of different soundscapes on mood, state paranoia, and cognitive performance found

that listening to birdsong improves depression, anxiety and paranoia.

The study was conducted using an online experiment with 295 participants, who were exposed to a diverse range of traffic and bird soundscapes. Both before and after exposure, participants filled out depression, anxiety and paranoia questionnaires.

Traffic noise soundscapes were associated with increased depression, while birdsong significantly decreased depression, anxiety and paranoia.

"In sum, the present study suggests that listening to birdsongs regardless of diversity improves anxiety, while traffic noise, also regardless of diversity, is related to higher depressiveness," the study notes.

Sustaining urban birdlife

With more than half of the global population living in cities, where birds are the major (if not only) contact people have with wildlife, it becomes important to reduce the effects of urbanisation on urban bird habitats.

"The vast amount of predicted urbanisation in the coming years will [...] consume habitats and reduce the possibilities for birds to thrive in cities and thus also reduce people's potential to detect birds," writes Marcus Hedblom and Enrique Murgui in the book *Ecology and Conservation of Birds in Urban Environments*.

The largest occurring urbanisation processes are under way in Southeast Asia and Africa and, together with South America; these continents foster "some of the most important areas of urban bird biodiversity", according to Hedblom and Murgui.

A push towards more sustainable urbanism is "sorely needed", a 2021 study by Katherine E French reports. "Urban populations are set to expand from three billion people as of 2000 to 6,4 billion by 2050," with South and Central Asia and sub-Saharan Africa predicted to be the greatest areas of growth.

"The patterns of how urban birds are affected by urbanisation processes are simi-



lar globally, with decreasing habitats and change of habitat qualities and pollution effects," Hedblom and Murgui write.

In response, French proposes that integrating biomorphic urbanism – "a design ideology that takes inspiration from nature to develop more sustainable cities that reduce the environmental impact of urban life" – into city planning could help improve the damaging effects of increased urbanism on the environment by providing "new prototypes of how humans and nature can co-exist in a more balanced and fair manner".

Incorporating plants into architectural designs and protecting existing natural urban spaces, such as parks and urban forests, attract a diversity of birds which, in turn, improves the well-being of a city's inhabitants.

In light of this, an "increasing number of areas for urban bird conservation are being recognised and habitats managed" to provide for an increase in urban bird populations, according to Hedblom and Murgui. "In a global perspective, cities do still provide habitats to allow a diverse bird fauna."

The King's College London investigation notes how the prescribing of nature-based activities, or "green prescribing", has become popular in aiding those with mental illness.

"Our investigation supports the notion that visits to habitats with a high degree of birdlife, such as parks and canals, may be encouraged as part of green prescribing efforts."

This article was previously published in the Daily Maverick

The strange habits of butterflies

Steven Woodhall

Everyone knows that butterflies drink nectar, right? And some know that they start life as caterpillars that feed on plants. Which doesn't go down too well with some, if those plants happen to be a crop or their prized garden plants! There are many species of butterfly that don't 'follow the rules' - such as caterpillars that don't eat leaves!

Many butterflies in the family *Lycaenidae*, or 'gossamer-winged' butterflies, have evolved to feed as caterpillars on food that is high in nutrients or protein. This allows them to grow quickly as larvae under conditions where perishable food, like leaves, may only be on the menu for a short period of time. They simply lack the nutrients to get the butterfly through to adulthood before they dry up and become unpalatable. The basic level of this behaviour is to eat seeds.



Black-and-orange playboy *Deudorix diocles* caterpillar in a pride-of-Kaap seed pod



Black-and-orange playboy *Deudorix diocles* fast flying male adult

Male black-and-orange playboys can often be seen whirling around the treetops like a little dervish, chasing other butterflies - often ones much larger than themselves. Where does he get all that energy from? Well, he's a butterfly so he drinks nectar, but as a caterpillar he fed on the seeds of leguminous plants like pride-of-Kaap, *Bauhinia galpinii*. This is a common lowveld plant and the greyish-brown female playboys can often be seen laying eggs on the base of the pods.



Black-and-orange playboy caterpillar hole in a seed pod

The caterpillar hatches from the egg and bores into the seed pod where it gorges on the nutritive, protein-packed seeds. All you can see on the outside is a small hole, sometimes with the caterpillar's rear end blocking it.

OK I hear you say, that's just like the grubs we find in apples or plums. Yes, this is a common and successful survival dodge that many butterflies and moths use. Some, like the pea blue butterfly, *Lampides boeticus*, do it to an extent that they are a pest of crops like peas.



Pea blue, *Lampides boeticus*, a well-known pest of cultivated peas

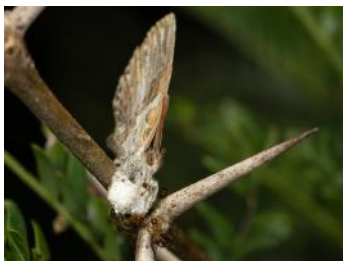
There's one rather common little butterfly that doesn't touch plant matter at all, as a caterpillar or an adult. Allison Sharp, who lived in Hoedspruit for a long time, photographed a caterpillar munching on a plant hopper.



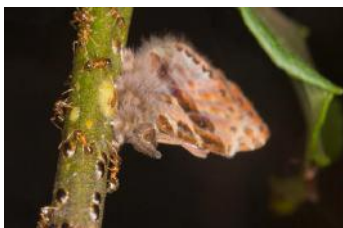
Southern pied woolly legs, *Lachnocnema laches*, young larva eating a Homopteran nymph
Photo Allison Sharp

The caterpillar has long front ('true') legs with which it catches the plant hoppers. Allison reported that the plant hoppers (which can jump quite long distances), keep still after they've been caught by the caterpillar and allow themselves to be eaten. Is this venom in action? Who knows?

The adult butterflies are attracted to the honeydew produced by plant hoppers and scale insects.



Southern pied woolly legs, *Lachnocnema laches*, female feeding on scale insects



Southern pied woolly legs, *Lachnocnema laches*, male sucking at scale insects

The scale insects attract ants, which appear to ignore the butterfly and allow it to suck honeydew from the scale insects alongside them. But that's not the end of the weirdness. Woolly legs caterpillars have been seen being fed mouth to mouth (trophallaxis) by ants! That's how the ants feed their own young.



Southern pied woolly legs, *Lachnocnema laches*, final instar larva being fed by trophallaxis

You can find woolly legs anywhere there are scale insects or plant hoppers. They aren't rare and are endlessly fascinating to watch.

Related to woolly legs are an even weirder set of butterflies - the skollies (genus *Thestor*). These have evolved to live with certain ants in a cuckoo-like relationship. One species, the Basuto skolly, *Thestor basuta*, is common and widespread in the grasslands and savanna, from the foothills of Lesotho to the Harare area of Zimbabwe. They are found all over the grassy hills in KwaZulu-Natal, Mpumalanga and Limpopo, and a few places in Gauteng. They have relatives all over the Karoos and Fynbos, where they have specialised like crazy - 28 species in total!



Basuto skolly, *Thestor basuta*, male perching



Basuto skolly, *Thestor basuta*, female with pugnacious ants, *Anapolepis custodiens*

The Basuto skolly cannot feed in the adult stage, which makes their frantic territorial behaviour amazing. They only live a week or two, but that's long enough to mate and lay eggs. Here we see a male perching on a grass leaf, defending his territory. The female is looking for somewhere to lay eggs amongst the host ants.



***Thestor basuta*, eggs amongst jassid plant hoppers**

Here a female Basuto skolly has laid her eggs amongst young nymphs of jassid (*Homoptera*) plant hoppers, which like scale insects feed on plant sap. The young caterpillars would feed on the eggs and young of the hoppers, then at some stage move into the pugnacious ants' underground nest. Here our knowledge becomes sketchy. Although fully grown Basuto skolly larvae have been placed inside captive ants' nests they have never been observed feeding. What we do know is that these butterflies are usually found near termites' nests, and the ants are known to feed on the termites. Other species of skolly have been reared in captivity, like the peninsula skolly, *Thestor yildizae*, shown here.



Peninsula skolly, *Thestor yildizae*, caterpillar fed by trophallaxis The mouth-to-mouth feeding is clearly visible Photo by Alan Heath

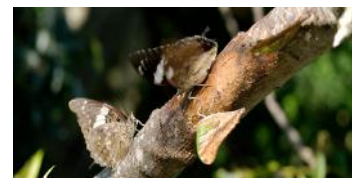
Another thing we know about skollies is that they inhabit some of the most arid and inhospitable places in South Africa. In such places there is barely any plant matter but there are pugnacious ants and termites...



Roggeberg skolly, *Thestor pringlei*, female ovipositing at Swaarweeberg near Sutherland in the Karoo

Sutherland is known for its harsh, arid climate, but some butterflies are found there. This female Roggeberg skolly is laying eggs on a bare, dry grass stem with no sign of any jassids nearby. It's likely that the young larvae are carried directly into the ants' nests by their hosts.

There are several species of butterfly whose adults don't use nectar. *Charaxes* butterflies, often called 'emperors' or 'kings' are forest canopy insects that are hardly ever seen on flowers. They would be seldom seen at all, were it not for their fondness for fermenting fruit or tree sap, and some less savoury foods.



Green-veined charaxes, *Charaxes candiope*, and blue-spotted charaxes, *Charaxes cithaer* on, tree sap

These butterflies are feeding on sap leaking from an injured tree. The damage is probably being done by borer beetle grubs. This kind of behaviour is often seen in the lowveld and forests. The butterflies need the energy given by the alcohol in the fermenting sap.



Bushveld charaxes, *Charaxes achamenes*, and others sucking at baboon scat at Lekgalameetse

Here are four species of butterfly feeding on baboon scat on the road through the forest at Lekgalameetse Nature Reserve. There are three charaxes - bushveld charaxes, *Charaxes achamenes*, green-veined charaxes, and satyr charaxes, *Charaxes ethalion* - all males. In addition, there's a tiny *Lycaenid*, the black pie, *Tuxentius melaena*. These 'poo clubs' are not a rare sight in the game reserves, but it would be interesting to know what these butterflies find so attractive about the dung? Black pies are usually found on flowers, but they are also often found on urine or dung.

Firstly, most animals don't use all the nutrients in their food and let a lot go with their dung. Other animals sometimes use dung as a food source, like the hyaenas. There would be plentiful protein and even sugar in that dung - especially if its author had been feeding on fruit, as the baboon had.

Secondly, dung and urine are sources of salts and electrolytes. Butterflies whose caterpillars eat plants are herbivores. Like many herbivores (notably antelope and cattle), their diet is lacking in salts and must be augmented by 'salt licks'. These butterflies are on a salt lick! In fact, commercial salt licks left out for cattle often attract butterflies.

And as for the dung feeding, they are a type of 'fly' after all!

Snake venoms – the three types and their effects



Puffadder (above), Mozambique spitting cobra (middle) , snouted cobra (top right)



Copyright :Johan Marais

Luke Kemp
African Snakebite Institute

There are one hundred and seventy-seven snake species and sub-species in southern Africa. Around seventy-six species are non-venomous and are essentially harmless to humans. Fifty species are considered mildly venomous with a venom that may cause similar reactions to a bee sting - slight swelling, light pain, and some itching. Thirty snakes are considered venomous although not life-threatening. These bites are typically quite painful with some decent swelling and occasionally some tissue damage. Twenty-one snake species in southern Africa are considered highly venomous and have caused fatalities in humans.

The venom of African snakes is grouped into three different types: cytotoxic, neurotoxic and haemotoxic.

Cytotoxic venom

The most commonly seen bites are from snakes that contain a cytotoxic venom. This venom causes pain, swelling, blistering and discoloration of the skin. The venom is cell-destroying, and often leads to the necrosis. In necrosis, the tissue dies and oftentimes leads to skin grafts, amputations, or other surgeries. This venom is common in puff adders and most of the spitting cobras. This venom seldom leads to death, provided the bite is treated in a medical facility, but it does cause morbidity and bad scarring or even amputations are common.

Recorded deaths are usually as a result of organ failure, and this may take more than a day to occur if the bite is left untreated. Polyvalent antivenom is effective

in the treatment of these bites. It is vitally important to get treatment and antivenom as soon as possible, as antivenom can prevent further tissue damage, but it cannot reverse any damage that has occurred. If a victim delays going to the hospital, or visits a herbal healer, the time wasted will result in more tissue damage.

Neurotoxic venom

The most dangerous venom is the neurotoxic venom. This venom shuts down the nervous system, causing interferences between signals from the brain to the muscles. Some of the first symptoms include drooping eyelids (ptosis) as the muscles on the eyelid become paralyzed. Victims talk of a metallic taste in the mouth and often salivate uncontrollably. There may be a tingling sensation in the lips. Eventually, the muscles around the lungs start becoming paralyzed and the lungs no longer expand to suck oxygen in.

This is a fast-acting venom and symptoms can occur within 10-15 minutes. Most deaths that occur in South Africa from snakebite (around 10-12 a year) are from neurotoxic venom and death may occur within 2-6 hours after the bite.

This venom is found in the black and green mambas, as well as our larger non-spitting cobras such as the Cape cobra and snouted cobra. Mouth to mouth or using a bag valve mask is sometimes required to assist the breathing of a bite victim. Ambulances are the preferred transport method, as they can keep the patient stable and breathing en route to the hospital. It is vitally important that the victim be taken to a hospital as soon as possible, where they can be treated

with antivenom and put on a ventilator if necessary.

Haemotoxic venom

The third venom we have in southern Africa is the haemotoxic venom. This venom attacks the blood system, preventing the clotting mechanism and causing blood to move through the mucus membranes. This results in hemorrhaging with bleeding under the skin (like bruising), bleeding from the nose, the gums, in the urine and eventually bleeding on the organs, and finally the brain.

Bleeding on the brain (brain hemorrhaging) is usually terminal. It is a very slow-acting venom and often there are no symptoms for the first 6-8 hours. A simple blood clotting test at a clinic or hospital can show whether the patient has been envenomated.

This type of venom comes from our back-fanged snakes such the boomslang and vine snake. Bites from these docile and shy snakes are uncommon and deaths are rare. Death may take between a day and three days to occur if untreated. There is a monovalent antivenom made purely for bites from the boomslang, which is highly efficient and will prevent any further bleeding.

There is no antivenom for the vine snake and bites will need to be treated symptomatically. There has never been a recorded death from a vine snake in southern Africa.

Snakebite is most common between October and April, the warm rainy season, and most bites occur on the feet or legs as a result of people accidentally standing on snakes. The majority of bites occur at night or late evening as many snakes are mov-

ing around at that time. The use of closed shoes and a torch will greatly reduce the chances of accidentally standing on a snake and getting bitten.

For snakes found in the house, garden or workplace, make use of the free ASI SNAKES app to locate a local snake remover in your area. Do not attempt to move the snake/s yourself!

Check out the website on www.africansnakebiteinstitute.com – get your FREE App on the link <http://bit.ly/snakebiteapp>



Boomslang (above) and black mamba (below) images: Johan Marais



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The Lantana lament – *Lantana camara*



Lantana camara

Louise Pravid

Toxic tendrils creep over disturbed land as webs of root systems colonise the ground beneath them. Bursts of vibrant colour pop against hairy, dark-green leaves, a fireworks display put on by a tenacious weed. Poison berries glimmer invitingly in the daylight, made plump by a sponge-like intake of water.

Competitive as ever, nearby botanical species are quickly eliminated by thirst and substrate corruption. Many beautiful things do little to disguise their danger, they will advertise it with bright contrasting colouration. This should have been considered when *Lantana camara* was removed from



Images supplied

its native habitat in South America, and brought to Europe as an ornamental, living decoration for garden enthusiasts. It did not take long for this species of lantana to spread throughout the world. Of the recorded 150 species of lantana, only a few are considered safe, as only a few are considered dangerous, and even deadly.

No one is too sure when or how *Lantana camara* arrived in South Africa, but records of it date back to 1858. It was first noticed due to mysterious deaths of both livestock and people. Additionally, there was a decrease in both animal and botanical biodiversity noticed in areas choked by it. More than a century later it was confirmed that *Lantana camara* was the responsible party. Not only are the berries fatally poisonous

to all mammals including humans, but their hair covered, thorny stems and leaves cause skin irritation, rashes, and welts.

This plant is particularly vicious in its biology, but it is also a vicious and prolific invasive species that adapts well to a range of different climatic conditions. *Lantana camara* has developed copious colonies across South Africa having spread everywhere from its first discovery in the Western Cape. The species has spread rampantly north and eastward, it edges the boundaries of our rivers and reserve fence lines. It is particularly good at establishing itself on disturbed land, land that was once farmed, overgrazed, mined, or used in a way that dilapidated the original natural integrity of the earth.

It has been proven by peer reviewed academic research that *Lantana camara* has a significant impact on water quality, the biodiversity of invertebrates, and restricts indigenous pasture, making it difficult for grazing animals to access food. Additionally, the weed grows in thick, prickly clumps under trees, along water sources and fence lines, making near impenetrable thickets, altering animal movements and ecology in certain areas.

The weed's range continues to expand, and is edging ever closer to some of our most important protected areas. By South African law, any landowner that encounters *Lantana camara* on their property is obliged to control and remove it, this however, is easier said than done. To get rid of the plant, both intense mechanical and chemical control methods are used. The plant must be chopped down to its base in the soil, all sticks, leaves, flowers, and berries should be burnt, and a strong chemical poison painted over the remaining stump for absorption into the root system, to ensure there is no coming back. The roots should also be removed (and burnt) and the soil rehabilitated to make way for indigenous species to return.

As FGASA members we are all custodians of the natural world committed to preserving it for our own benefit and the benefit of future generations. *Lantana camara* is a ticking ecological timebomb, and it is our responsibility to control and remove it for the conservation of our natural heritage. Huge thanks to Greg Kietzman for bringing this to our attention. We would love to get involved in removal efforts and assist in gathering volunteer groups to help more.

Do male lions hunt and why are adult male lions seen together ?

The answer to this question will vary from area to area, but essentially the answer is yes! Although the amount of hunting that pride males do is largely a function of circumstance, lion males are by no means lacking in hunting skills. A prevalent misconception is that males rely entirely on the lionesses for food, but this is totally illogical. Cubs of both sexes learn to hunt in the same way - through play, observation, practise and experience. Young males, once evicted, spend a few years alone or in coalitions and either have to kill for themselves or starve. In addition, pride males often spend a lot of time away from the pride to adequately patrol and scent mark the area in an effort to keep intruders out and ensure safety of their cubs. I have seen lone males in these situations successfully hunting warthog, wildebeest, impala, and zebra. I know of a lone, large male (blind in one eye) that jumped onto the back of a large male wildebeest and broke its neck by pulling the muzzle back with one paw. This was an amazing feat, considering the lion had no binocular vision. The problem is that mature males are large, have conspicuous manes, and are slightly less agile than the females, making the average female arguably more efficient as a solitary hunter.

On a few occasions when I have seen a pride (including a male) hunting in thick bush at night, there is often mayhem as the prey (especially those in herds) bolt in a variety of directions with the pride duly scattering as well. In the ensuing free-for-all, the lionesses, usually outnumbering the male 3 or 4 to 1, are generally at the point of impact, actually grabbing the animal. The male then rushes in and, amid major aggression, steals the kill. I have had numerous comments about 'how he lazily lay back and now steals all' but this is a biased view of events based on preconceived ideas. The male was participating in the hunt, but was also slower, and most importantly, outnumbered. Even a skewed view

of 'numbers' would tell you that a female was far more likely statistically to catch the prey (if only one was caught). I have, in fact, seen males on two occasions in a pride effort actually catch the first prey - the females on both occasions immediately backing off, but two young males (about 3½ years of age) contesting the spoils on the one kill, and after an aggressive encounter being allowed to feed with the pride male. This was all the more remarkable because the prey was small - an Impala.

The old adage 'spend the least energy to acquire' applies, and although it is often imperative that the extra weight and power of the males be used to bring down large and/or dangerous prey like elephant, hippo, buffalo or giraffe, they will let the females do the hard work. After all, they have to spend days walking kilometres and have dangerous fights to ensure that the territory is safe for females to raise cubs. Males are 'lazier' and more reliant on females in areas where the lion population and concentration is low in stable territories, and they therefore don't need to spend as much time away patrolling.

Why are adult male lions seen together?

Imminent territorial males forced young males out of their territory because they are deemed to be a potential threat to reproductive opportunities. These young males risk being killed if they stay and are then homeless - suddenly being cast into unfamiliar territories occupied by other mature males. If possible, they will leave with brothers or similarly aged half-brothers to improve chances of survival in both hunting and defence through their two to three-year nomadic phase. During this time, they are constantly moving through occupied territory, and they have to lie low, or risk being killed.

Young males will, therefore, commonly team up with other nomads (unrelated males of dif-



Male lion coalition

Image : Canva Pro by Rudi Hulsho

fering ages) because they are all in the same predicament and need the support and stability that cooperation in sociability brings. This so-called **coalition** will invariably not develop a dominance hierarchy unless there is a distinct age difference. They will be in a good position to take over a territory earlier than they would have done had they been alone, and they will maintain the territory for longer than their individual primes. They may even have the capabilities to take over adjacent territories. This all means access to many females - probably a reason why there is no need to develop a hierarchy and to fight for females because they are plentiful. Direct reproductive success for each male is therefore

almost guaranteed. This is important if these often unrelated males are to pass on their own genes.

Coalition males are likely to live longer than solitary males owing to the long-term security that strength in numbers brings. Bonds between coalition males can be very strong. With physical contact being conspicuous - they will lie against or over one another and often nuzzle - something you seldom see between males and females.

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




WELCOME TO HOEDSPRUIT

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We hope that you will thoroughly enjoy your stay here. Because your safety is of utmost importance to us, we request that you consider the following safety recommendations:



It is safer to use a shuttle arranged by your host than to rent a car. Your host will also be in a good position to advise you of the areas that should be avoided. Google is not always the best option to use, ask your host to send you a pin location of your destination. It is also advisable not to drive on public roads after sunset.



Withdrawal of money - we do recommend that you withdraw cash from the ATM located inside the banks or at the INSIDE of shops. NEVER EVER allow someone to help you or distract you while you are at the ATM. If something should happen at an ATM where someone has distracted you and possibly gained access to the ATM while you are busy, call your bank and STOP the card IMMEDIATELY. Go to the nearest police station and report the incident.



Ensure your valuables such as cameras, laptops, etc. that may be left in a vehicle are not visible.



When locking your vehicle with a remote, please don't just walk away from your vehicle. Please check that your vehicle has locked first before walking away. Remote jamming is a common practice in South Africa (the suspects use an additional remote to block the signal of your remote). You may think you have locked your vehicle as you pressed the remote, however, with the signal jammed, the vehicle did not lock and the suspects then have the ability to simply open the vehicle doors and remove all your possessions.



Do not pay for any parking except where there is a boom and you get a ticket to pay. It is standard practise however to tip car guards in the car parks of large shopping centers. They will normally be clearly visible.



If you are stopped along the road by Traffic Police or Policemen and they request cash, never pay them anything. It is unlawful to offer a member of the Traffic Police or Police any form of payment for any reason whatsoever. If they refuse to issue a written fine to you, do the following: Remain calm and respectful. Take note of the officer's name. Request to be escorted to the nearest police station. Report the situation immediately to the person on duty. Get in contact with your hosts too.



If you visit the Kruger National Park, please ask your host to guide you in terms of which gates and routes are the safest to use to get into the park.

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

The following numbers are only relevant if you are in Hoedspruit or the immediate surrounding areas:
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- ## QUIZ ANSWERS
1. Roald Dahl
 2. White – the spots come later
 3. Lateral Thinking
 4. Paint Your Wagon
 5. Accra
 6. Artemis, sister of Apollo
 7. Pierre
 8. The President of South Korea
 9. The internet
 10. Dalton, USA
 11. Chlorine
 12. The Roosevelt Hotel
 13. Bangalore
 14. The White House
 15. Signs
 16. Cyprus
 17. Canada
 18. The vacuum cleaner
 19. Brussels
 20. Sri Lanka in the 3rd century BC
 21. Andy Warhol
 22. King Lear
 23. Driving
 24. Caesar's Ghost




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Wilna at 0157930267 or info@raptorsviewhoa.co.za
Enquires: James Cary 0716752525

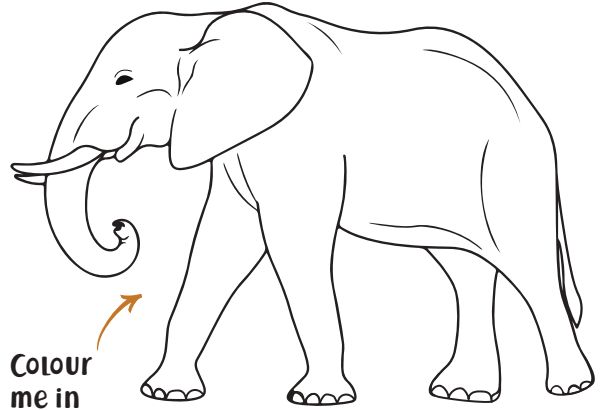


RAPTOR'S View
Home Owners Association

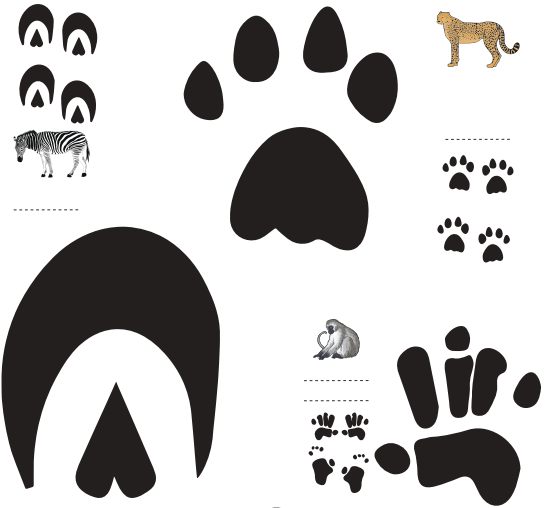
Junior FGASA & Kids In The Wild

How many words can you find?

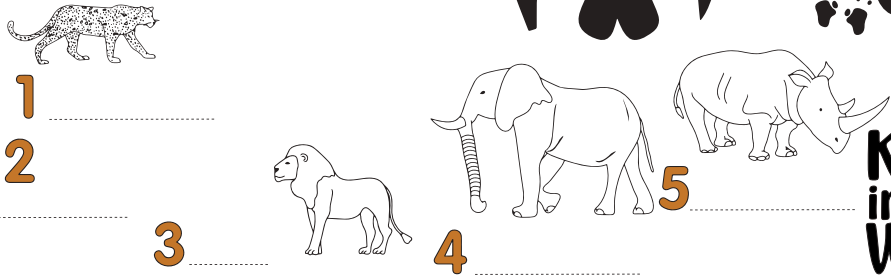
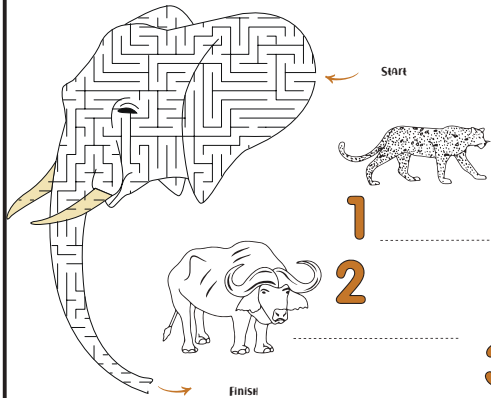
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Y	T	A	L	N	D	E	A	P	E	S	I	L	A	A	R	D	V	A	R	K
U	H	C	E	M	I	N	I	D	H	A	S	O	P	E	P	I	R	D	L	V
P	I	R	P	O	R	C	U	P	I	N	E	R	T	C	V	G	H	M	K	A
M	P	T	H	E	A	R	Y	I	Q	W	X	N	P	Z	I	O	U	L	R	S
P	P	G	A	R	F	O	E	S	G	I	R	A	F	F	E	M	E	E	C	A
A	O	H	N	T	N	C	D	T	G	V	W	B	I	J	U	I	B	O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



Name the Animal...



Can you name the Big Five?



If you love the wilderness, and are passionate about conservation, then we have the perfect thing for you. Junior FGASA in partnership with Kids in the Wild bring you the new and improved Pangolin Course. The Pangolin Course includes a once off membership with Junior FGASA, a fantastic learner manual and workbook as well as the option to do on demand lectures with Kids in the Wild. Children can study at their own pace with Junior FGASA or with Kids In The Wild. Register with Junior FGASA or Kids in the Wild today, to start the Pangolin course. www.juniorfgasa.co.za | +27 (0) 11 886 8245 admin@fgasa.org.za | www.kidsinthewild.co.za | +27 (0) 66 485 1956 info@kidsinthewild.co.za



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