

KRUGER2CANYON NEWS

November 2022

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Translocation of SA cheetahs to India — 'there is going to be a lot of heartache and pain'

Don Pinnock

Some say sending African cheetahs to India is a brilliant idea, others insist it's possible but with warnings, and some say it's an absolute disaster.

If the 20 African cheetahs destined for Kuno National Park in India die – and there's a good chance they will – it won't be met with the same fanfare as their arrival.

The question we would then need to ask is whether they were sacrificed for the greater good of conservation or for a national vanity project.

The cheetahs were planned to arrive on India's Independence Day (15 August) but didn't make the date. Instead, they got there on 17 September in time for the birthday of Prime Minister Narendra Modi, who released them into a boma in Kuno National Park.

Twelve more are about to arrive from South Africa, pending the signing of a memorandum of understanding.

Some say sending African cheetahs to India is a brilliant idea, others insist it's possible but with warnings, and some say it's an absolute disaster. The cost is estimated at R200-million in the first five years. The Wildlife Institute of India estimates that in the first year only 50% will survive.



Is it a reasonable project? You be the judge.

The Indian Government For India, the symbolism is important. Cheetahs have been integral to Indian heritage, folklore and culture since time immemorial. The last cheetah in India was

shot in the 1940s. It's the only large wild mammal to go locally extinct. Their return is a mark of national pride.

India's environment minister, Bhupender Yadav, tweeted: "Completing 75 glorious years of Independence with restoring the fastest ter-

Cheetah and cub

restrial flagship species, the cheetah, in India, will rekindle the ecological dynamics of the landscape."







Image: Canva

From the editors desk.



Scan for the digital copy

A very hot hello to all our readers. I think that this summer is going to be a very hot one if one looks at the past month. But hey! It's summer and we live in the lowveld, what should we expect?

Unfortunately, we will not be publishing any constellation this month because Ben Coley from Celestial Events SA, who graciously submits our 'astro-column' every month, has had a major IT crash and lost everything. We wish him well

in retrieving it all and look forward to the addition of his column in next month's edition.

We are grateful that we did get a response from the mayor's office, but followup questions still go unanswered, and they did not get back to me following up on the investigations that were done as per the answers in the Mayors Minute, in August - so I don't know the outcomes of those. I will continue to follow up.

Thanks to Johan Marais from the African Snakebite *Institute*, who has happily joined our team of authors that submit most of our content. For that we are very grateful and hope that you, the readers, learn a lot from his input.

We are happy to welcome Lauren Dold, who has also I don't get it. And I haven't

agreed to submit very interesting content from time to time. We launch her column with the 'Five of Kruger Parks best picnic sites', so enjoy the read, and exploring the sites when you have the chance.

Then there are matters pressing our community, one of which is the new suggested R40 interchange. Forgive me here but I don't get the vision, I don't understand the thought process adverse road conditions and potholes, service issues (like water), litter, dumping, shacks, and the list can go on. We have not solved these pertinent and very prevalent issues, and now we are going to build a multi-million rand interchange, and the balance of the problems go unsolved!?

makes no sense at all. Without fair public participation and input, the whole town demeanour is going to change, in my view for the worse - let's get our stuff sorted and maintained first. let's look after what we have first, let's make it function, let's make sure that when people come through our town, they look at it in awe ... because, surprisingly, it works.

We can't say that now, and it amazes me that the powers that be, seemingly ignore this fact. But if we were to get that right, then, and only then, should we be looking at other projects. I urge you all to involve yourselves with the SANRAL R40 petition – I congratulate those involved; we need committed, concerned

even got to the mall yet. It residents to drive home our concerns and considerations. I truly hope that the petition bears fruit. It will have been submitted by the end of November, and I believe that it is important for us to take cognisance of the work being done in that domain and thank those that devote their time and effort to doing it, for all of us in the community. You can request the 'concerns document' from lizmari@ hoedspruitgh.co.za

> And so it's now a mere 23 days to Christmas - where did this year go? It's been a big year for a lot of people, re-establishing businesses and contacts, and getting down to living again. Long may this continue. On our side there are some interesting developments in the pipeline which will all be

revealed in the new year, but for now let's look forward to Christmas and the festive break - we all need that



Mark Bishop Editor



Letters to the Editor

Dear Ed,

I really want to congratulate you on raising the bar of the Kruger2Canyon News. The content is now substantial and interesting to read and is something that I learn from (as do my kids), and for that I want to thank you. You can be proud with what you have done over the last year and a half – we did have doubts about 'the new blood' entering the scene, but those

allayed with quality! Well done. Brian

Ed: Wow, thanks Brian. I'm very glad you have seen and appreciate the changes made which we believe are for the best. Your comments are much appreciated.

Ed,

The road to the airport – oh my god – that is a disaster waiting to happen and we

doubts have certainly been should be ashamed of the state that it is in. when is something going to be done about it?

Doug

Ed: Doug I agree with you - please refer to the Mayor's response in the Mayors Minute this month. It seems to have been handed to RAL - Road Agency Limpopo. I hang my head in frustration that it does not seem on the 'urgent agenda'.

Dear Editor,

As an old resident in town, I am well pleased that it seems that tourism is picking up. The town seems abuzz. Wow, there are so many people in town. I just wanted to mention that I hope that all this activity extends to the businesses in town and that the town benefits.

I also want to say Mr Editor, that it is so fabulous to read your new version of the Kruger2Canyon News. I would

like to think that we now have the best 'town paper' in South Africa – I think that if there is a competition you should enter. I like your mix of content, within the content, and then the content-advert mix. Well done and keep it up. Takes me back to my youth. Looking forward to my next mental sudoku challenge! Best regards, Marie

Ed: Wow - thank you Marie, very much appreciated and somewhat humbled.

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The Mayors Minute

This month we are lucky enough to have some answers from the mayor's office on questions that we posed some two months ago. It must be pointed out that not ALL questions were answered, and I refer to the September 2022 edition, where I published the questions in my column. So here are the answers.

What are the further developments on the Berlin Housing project?

The township establishment application is still underway.

that dump near Plastic View and we have previously written to the offenders, however we have had no responses and no repeats of vehicles reported - but the challenge continues.

We currently have only 2 general workers for the cleaning of the whole town, and we are going to allocate extended public works programs to assist in this regard.

A plea might be made to our businesspeople to stop dumping litter in undesignated bins. The Town Watch cameras may also assist in tracing offenders.

were assigned to the junction to register all the trucks from Tuesday 23 through to Thursday 25 August 2022. The aim was to take note of the trucks stopping at the junction, so as to communicate with the companies. Our Traffic and Licensing Department has been successful in assisting in tracing the vehicles.

We are in the process procuring "No stopping" and "No parking" signs. Once done, traffic officers will be deployed to monitor and issue fines. There will be a yet to be agreed with the taxi association from Acornhoek.

The town planning department has issued letters to illegal informal traders at the junction and will source capacity from technical service for enforcement.

The road to Eastgate airport is in a shocking state – when is something going to be done about that? It's now urgent – once again the first picture a tourist has of our area.

The Municipality has communicated with the HOD of Public Works, and a meeting is to be held with Road Agency Limpopo (RAL) included, to look into the maintenance of the road and for the road to be budgeted for upgrading in the next financial year. Town planning has further gone on site to take pictures to send to RAL showing the conditions of the roads in the Maruleng local municipality as a result of the lack of response.

one picture has been sent through. However, town planning has done road inspections on 9 August 2022, to get data on the roads that need attention.

When are we going to get a proper controlled recycling dump and a building material dump? The road Klaserie to Mariepskop is a disgrace with rubble and rubbish just dumnped in the

veld (for example).

An inspection was done on Monday 22 August 2022 to establish the source. The matter will be attended to.

The question that was sent through anonymously regarding the housing project and the pressure that it would put on the town and the services was unfortunately not answered.

The only outstanding study is engineering technical report.

Why can we not clean up our town - it's getting full of litter and bottles and is not a good visual appearance for tourists nor for residents?

The only problematic areas of littering of bottles in town is around the bus rank. We have a committee in plastic view who constantly cleans the area.

One of the contributing factors to littering is dumping by lodges in undesignated bins, especially the one at Spar and Plastic View.

The committee further assist in taking down registration numbers of the vehicles

Can nothing be done about the mining trucks stopping opposite La Bamba – as well as the thatching trucks that stop there? The litter there, as well as the traffic jams are really a sad example of our control (litter and traffic management) and pride (in our town).

Road warning signs are in the process of being procured. It was indicated by the department that traffic signs cannot be issued in the absence of the traffic warning signs on the roads, bearing in mind that the R40 is a SANRAL road. However, two officials

need for a night shift allowance for traffic officers.

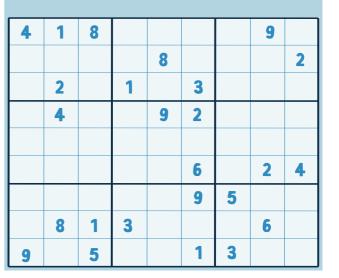
The Acting Municipal Manager (AMM) held a meeting with the taxi association and owners of La Bamba in relation to the taxis stopping at the La Bamba section, and a decision could not be taken in the absence of the taxi association from Acornhoek. A meeting is to be re-arranged with the taxi association.

The purpose is to ensure feedback to the taxis notifying them that only 2 taxis will park at the La Bamba parking lot to pick up shoppers. A control pick-up and dropoff strategy has been agreed upon, but the intervention is

The AMM has further communicated with Cllr Du Preez for pictures of the dilapidated roads in town, and those leading to commercial farms that need fixing from community members - so far

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

SUDOKU



Cont. from page 1

Their import also flags international cooperation around rewilding, the introduction of a top predator and the rebalancing of biodiversity.

After much legal wrangling, the introduction was approved by the Supreme Court of India in 2020. It was also approved by the Namibian government and is awaiting official approval from South Africa's Department of Forestry, Fisheries and Environment. What could possibly go wrong?

The vet

Cheetahs aren't the best travellers. There's a high risk of mortality in translocation. Seven of the first eight wild cheetah reintroductions attempted within South Africa between 1966 and 1995 failed, with the cats dying after release. More than 40 have died from immobilisation complications since 2011. Seven percent exported out of South Africa died this way. But we are getting better at it. The first eight arrived in India alive and well.

What about disease or predation in their new home? An assessment of the disease risk by Adrian Tordiffe, associate professor at the University of Pretoria, is reassuring. The chance of them either transmitting or contracting any communicable diseases, he said, was judged to be low. Nondisease risks, such as starvation or conflict with local predators such as leopards or striped hyenas, were also minimal.

But there is a problem: Kuno is unfenced. "We're used to operating in South Africa with fenced reserves where you have quite a lot more control," he said in an interview with Our Burning Planet. "In India. vou have got a human population of 1.3 billion and no fences. All the cheetahs released in India will be collared and satellite-monitored. In South Africa, if a cheetah decided to wander 100km beyond a park we'd use a helicopter to bring it back. But in Kuno

Serial escapees will be sent The Namibian cheetahs arto Mukundra Hill Tiger Reserve, which is fenced. Despite its name, it's free of tigers, but does have leopards, wolves and striped hyenas. It could see the first encounter between an African cheetah and a wolf.

Kuno has one of the highest leopard densities in the world. But hopefully, the cheetahs are predator-savvy. They come from Phinda in KwaZulu-Natal, where they have been exposed to lions, leopards and hyenas.

"Because they're going into areas where there's quite a high leopard density," said Tordiffe, "we wanted animals that are really quite wild. They're not naïve of those carnivores and they can avoid them, they can defend themselves against them, they're really aware of what they are and the risks that they pose to them."

But there are risks. In South Africa, leopards are responsible for 9% and lions 30% of relocated cheetah mortalities.

If all goes according to plan, the 20 cheetahs will stay in a fenced area at Kuno for a month or so before being released into the park. When the gates are opened, every cheetah is on its own.

The risks will not be just predators. Kuno is surrounded by farmers with cattle, sheep, goats, chickens and dogs. The young of cattle, sheep and goats could prove tasty, while dogs may be a vector for distemper and rabies. Though farmers are well compensated for loss to tigers and the same would apply for cheetahs, there is a bushmeat problem.

According to census research, Kuno has people who eat meat once a week or once a month on average. There is also a significant percentage that eats meat every day. Bushmeat snaring is prevalent in the region. People in the area were also found to own homemade guns, bows and arrows and catapults.

The facilitator

Vincent van der Merwe

rived intact and he's enthusiastic about the whole relocation plan.

"India has a completely different population methodology with a completely different mindset — they have a coexistence approach. There's no fencing. There's no retaliatory killings. Indians around Kuno belong to a completely different religious outlook.

"South Africa has a surplus of cheetahs and we would have to euthanise or contracept them, neither of which is optimal. So relocating is a good idea."

"There are definitely a lot of ambitious people involved enjoying the media attention," he added, "but it's also been a dream for many high-profile Indian conservationists. It's gonna be one hell of an uphill battle, there are going to be massive losses initially. But, you know, we'll learn. Indian parks have huge, unproductive buffer zones bringing in no revenue. They could hire them out as private game reserves."

He says the successful establishment of cheetahs in the proposed introduction sites in India will need to be managed until at least 1000 cheetahs are in place.

"This will require long-term commitment by South African and Namibian authorities to provide unrelated cheetahs for relocation to India. We hope that within 10 years we could have some form of population growth in India, but certainly, within the first 10 years of this project, there is going to be a lot of heartache and pain."

The Indian conservationists

Once released, though, the big cats will almost certainly walk out of the unfenced park, "and then they'll have a hell of a problem," says Ullas Karanth, emeritus director for the non-profit Centre for Wildlife Studies and a specialist in large carnivores. "The cheetahs will get trashed and killed very quickly because there's nothing outside of Kuno - and India. Cheetahs in India "perished for a reason" human pressure, which has only got worse in the 70 years since the species disappeared. "So the first question is, why is this attempt even being made?"

Wildlife biologist and conservation scientist Dr Ravi Chellam of the Metastring Foundation says the cheetah project is poorly conceived and grossly expensive.

"The cheetahs will require intensive hands-on management over decades," he said. "The government has still not implemented the 2013 court order to translocate Asiatic lions, of which there are only around 700 in the world, from Gir, Gujarat, to Kuno but they're quick to implement a 2020 order to bring in cheetahs from Africa, which number around 7,000 in the world. Which is more endangered?

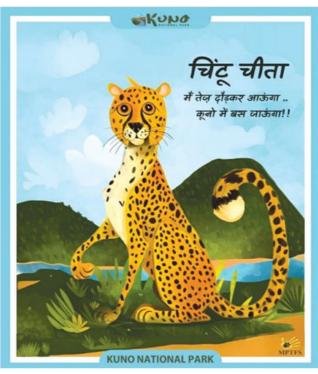
"This project is being rushed through to meet some goals other than conservation. The conservation goals are unrealistic and even unfeasible. Unfortunately, this will be a very costly mistake. It will be one of the most expensive conservation projects India has undertaken. We do not have habitats of the size cheetahs require. Without suitable high-quality habitats, this project is unlikely to succeed."

Prerna Singh Bindra, a wildlife conservationist and former member of the National Wildlife Board, also said she wouldn't classify the cheetah translocation project as a conservation project.

"Such projects, though sexy, are a distraction to our core objective of conserving wildlife and ecosystems. The cheetah is one of the widest-ranging of big cats and is known to travel across areas in excess of 1,000 km2 in a year. Historically, India has lost about 90% to 95% of its grasslands, 31% in a decade between 2005 and 2015. So where will the cheetah roam if it were ever returned to the wild?"

As the South African Department of Forestry, Fisheries and Environment ponders over the memorandum of understanding it is about to sign, it's hoped they'll have looked at all sides of the question. This article was previously pub-

lished in the Daily Maverick.



An Indian public awareness poster. (Image: Supplied)



Cheetah competition in India. (Image: Supplied)



they just have 4x4s."

This means serial wanderers will have to be chased, drugged and returned. Cheetahs are known to be susceptible to capture stress and often die because of it.

runs Cheetah Metapopulation and is both highly experienced in relocations and a consultant to the relocations from Namibia and South Africa. His job is to make sure they get there alive and well.

it's villages, dogs and farms." "There's not any chance for free-ranging cheetah populations now," adds Arjun, an independent conservation scientist who has conducted research on big cats in Africa



Three cheetah cubs with their mother. Cheetah mothers have to be extra vigilant to protect their cubs as they are easy prey both for predators from above (raptors) and on the ground (lions).

Image: Canva



Bowls by candlelight



Winning Team, African Express Spa - Biance Janse van Vuuren, Jaco van Rooyen, Elana Kemp and Pietman Pieterse (above - not in order).

Best Dressed - Arno esterhuizen and Paul van Eden (above right).

Biance Janse van Vuuren of the winning team, African Express Spa, being presented with the teams 'Love the Hoed' bowling bags by Mark Bishop, Editor of the Kruger2Canyon News (below right) Images supplied

Local correspondent

Recently Pick 'n Pay staged a 'Bowls by candlelight' fund raising event at Drakensig. The event saw 24 teams of four bowlers per team, taking part. It was also well attended by an enthusiastic audience of supporters.

The night was fantastic with everything having

been set out and ready for action. Paper bags with lit candles surrounded the green, many 'lumi sticks' and of course the proverbial headtorches were all over the place – and the participants spent the evening running around after their woods. It was fabulous fun. The food was graciously

donated by Pick 'n Pay, and plates of the food were

available to be purchased by the supporters. There were shots being sold as well as raffle tickets – 1000 of which were sold in short time! Many sponsors kindly donated items or outings as prizes, raffle and auction items. About 40% of the prizes were donated by the Hoedspruit community. Pick 'n Pay secured the remaining prizes from their suppliers.

The added x-factor was that the event was themed as "Your mission impossible". Everyone joined in the fun and as a result there were some very interesting costumes, and the 'Best Dressed' award at the event was won by Arno Esterhuizen and Paul van Eden.

Every player - 96 in all went home with a prize. First place was a dual prize

from Nyala Safari Lodge a game drive for 8 people for 3 hours with drinks and snacks supplied, and "Love the Hoed" in conjunction with Kruger2Canyon News, made wonderful bespoke bowling bags for each member of the winning team. African Express Spa came first, followed by BUCO 2 and in third was Raptors Watch.

A total of R 47 660 was

raised. An amazing feat and all for Town Watch - a fine contribution to ensuring a safe Hoedspruit.

Thanks must go out to Natasha and Mathew from Pick 'n Pay who have now been doing this for 15 years! Thank you also to all the sponsors, participants and supporters of the event, and here's looking forward to next year.



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CENTURY 21 Wildlife



NDLOPFU PRIVATE NATURE R7600000 RESERVE | Site: 10,000 m² | Reserve: 2,500 ha

This vacant site in Big 5, Greater Kruger allows you to build your own exclusive bushveld getaway with traverse over the reserve and a neighbouring farm. Membership is limited to ensure the exclusivity of the Ndlopfu Share Block.

Yvette Thompson - 083 655 7176 Ref: 2072996



Vacant stand available on the ever-popular Hoedspruit Wildlife Estate. With the estate almost fully developed, vacant sites don't come onto the market often. Don't miss this opportunity to secure your stand now

Yvette Thompson - 083 655 7176 Ref: 2078050



KARONGWE - BIG 5 R 9 250 000 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. Harvey tile roof for lower maintenance.

Rob Severin - 083 469 3820 Ref: 2063307

ZANDSPRUIT BUSH & AERO R17 000 000 ESTATE | Bedroom 4 | Bathroom 3,5 | Floor: 515m²

Sold fully furnished, decorated and equipped. Price includes a double hangar-stand with plans drawn up. Features include a separate library, TV room, gym, double garage, 2 carports, staff quarter and store-room, just naming a few.

Yvette Thompson - 083 655 7176 Ref: 2050871



OLIFANTS RIVER PROPERTY R 4 500 000 Bedrooms 4 | Bathrooms 4 | 50% share

By purchasing this 50% share in Parsons Nature Reserve you will have access to 2080 ha of prime Big 5 game viewing in Greater Kruger. This quaint bush home also has a lapa, pool and lush garden. The sale includes the use of a game view vehicle

Mike Dodds - 082 906 7004

Ref: 2048251



ESTATE Bedroom 4 | Bathroom 4 | Floor: 200m²

There is an open plan lounge, dining area and kitchen, as well as a guest bathroom and outside shower. Covered patio looks out towards splash pool, braai area, fenced garden and viewing deck. Home is sold furnished. VAT applicable on price.

Rob Severin - 083 469 3820 Ref: 2060556



GREATER MAKALALI R 20 000 000 Bedrooms 5 | Bathrooms 5 | Farm size: 640 ha

This farm within Greater Makalali Nature Reserve, which has the Big 5 with 20,000 ha of traverse. Approvals in place for 10 commercial beds. There is a main 2-bedroom home and 3 guest chalets. Ideal for syndication, families, or convert to boutique commercial lodge.

Jason Jones - 083 267 4794 Ref: 1459112

Ref: 1408817



NDLOPFU, UMBABAT R 11 500 000 Bedrooms 4 | Bathrooms 3.5 | Floor size: 240 m²

The house is privately situated on the banks of the seasonal 'Tsiri river. Ndlopfu is a share block in the heart of a Big 5 Greater Kruger, with only 32 member sites on 2,500 ha of pristine bushveld in the sought-after Umbabat Private Nature Reserve.

Yvette Thompson - 083 655 7176 Ref: 2032793



N'TSIRI NATURE RESERVE R 7 000 000 Bedrooms 4 | Bathrooms 2.5 | Traverse: 2651 ha

N'tsiri Nature Reserve is an exclusive, private use. Big 5 reserve where wildlife roam freely across the unfenced borders with the Kruger National Park, Klaserie & Timbavati Private Nature Reserves. Membership is limited to 65 homes

Ref: 1450349 Yvette Thompson - 083 655 7176



R2 950 000 SILONQUE, PHALABORWA Bedrooms 2 | Bathrooms 2 | Floor size: 160 m²

Easy to maintain bush home located on a 21 ha farm portion within a conservancy and 3 $\rm kms$ from the Kruger Park fence. It's located 7 km from the town of Phalaborwa and within a conservancy with a boomed security gate & a large variety of game.

Mike Dodds - 082 906 7004 Ref: 1317289



R 2 200 000 LISSATABA Bedrooms 3 | Bathroom 2 | Floor size: 180 m²

The buildings, from natural stone and thatch, are neatly located and built into the bush hiding them away. The main living area has a lounge and kitchen which leads out to a thatch patio with spectacular views of the Drakensberg Mountains.

Rob Severin - 083 469 3820





LISSATABA R 3 500 000 Bedrooms 3 | Bathrooms 3 | Floor size: 220 m²

Stunning Olifants river views! This newer home has been well constructed, is in good condition and is perched on the hillside overlooking the river. There is an open plan kitchen, dining room & lounge, leading out to a patio with gorgeous views.

Rob Severin - 083 469 3820





Ref: 1458608



NDLOPFU - Greater Kruger R 13 000 000 Bedrooms 4 | Bathroom 3 | Floor size: 350 m²

This large home is situated in the exclusive Ndlopfu Private Nature Reserve. The home is privately located overlooking the 'Tsiri river. Sold fully furnished and including a game viewer. Solar



MAFUNYANE, KARONGWE R 15 000 000 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.



NDI OVUM7I R 3 750 000 Bedrooms 4 | Bathrooms 3 | Floor size: 380 m²

This 21-ha Olifants river property has a 2 bedroom main home and a separate 2-bedroom cottage, all located under large indigenous riverine trees. The outdoor entertainment area has captivating views of the garden, pool & river.

GRIETJIE, GREATER KRUGER R 8 800 000 Big 5 | Floor size: 400 m² | Stand size: 21,4 ha

This property offers elevated views of the surrounding bushveld, with peace and quiet only the bushveld can provide. This beautifully maintained property offers 3 dwellings - a 3-bedroom main home, a 2-bedroom cottage and a rondavel.

Mike Dodds - 082 906 7004

power backup and recently redone thatch.

Ref: 2063033 Rob Severin - 083 469 3820

Jason Jones - 083 267 4794

Ref: 1459005

Yvette Thompson - 083 655 7176

Ref: 2050020

A WORLDWIDE LEADER IN REAL ESTATE

Ref: 1443333

E&OE Each Century 21 office is independently owned & operated

EXPLORE

Five of Kruger National Park's best picnic sites

Lauren Dola On-the-move correspondent

There are 12 picnic sites spread out throughout the Kruger Park, each of them charming and lovely. Popular and familiar favourites stick out, like the Timbavati picnic site and Tshokwane, but there are some lesser-known spots that are equally delightful.

Picnic sites are some of the only spots in the park where visitors are permitted to get out of their vehicles, so they're a good place to stop for a leg stretch and a loo break, and of course to spend some time lunching in the wild. Skottels are available at all of the picnic spots below, for a rental fee of R30, and each site has toilets (some with plumbing, others are long drops).

The southern region is the busiest section of Kruger National Park in terms of game and in terms of people. The picnic sites down south can get crowded, so it's best to go outside of the brunch rush-hour times.

Nkuhlu

25 km east of Skukuza on H4-1 and 23 kms west of Lower Sabie River on H4-1. Nkuhlu is the Xitsonga name of a Natal Mahogany, the tree that dominates this picnic spot. Nkhulu overlooks the Sabie River, which usually means visitors to the picnic site can spot hippos and other animals near the water. Gas skottels are available for hire for R30, and there is also a small tuckshop for snacks and drinks. The picnic tables are laid out on different levels, and it's best to get a spot on a lower level where you'll have eye-level views of the river.

Nhlanguleni

Nhlanguleni is one of the smallest and quietest picnic sites in the park, mid-way between Skukuza and Orpen on the S36. Nhlanguleni is a basic site, impeccably kept, with long drops and a handful of tables. Apart from Mudzanzeni picnic site further north, it is the only place to stop for a comfort break on the S36. It's about a 3km drive from the old

Lugmag Dam. The veld in this region is quite dry, but the general game is good. Sightings of curious dwarf mongoose at the picnic site are guaranteed!

Mlondozi

Overlooking Mlondozi Dam, about 15 kM from Lower Sabie camp on the S29. Mlondozi picnic site is located on top of a koppie, with views of the Mlondozi River and dam, the wide plains below and the Lebombo Mountains in the background. From the elevated position, sightings of buffalo and elephant are usually good. Thatched umbrellas provide shade over the picnic tables, with benches on the edge of the building for good visibility and photography. There is no shop but there are skottels for hire.

Makhadzi

On H-15, north-east of Letaba Rest Camp. Makhadzi picnic site is in a quiet region of the park, on the way to Giryondo border post, close to Malopenva waterhole. Few tourists wander this far

Image: Lauren Dold

Babalala picnic spot

off the main road, so it's a good spot for those wishing for some peace and quiet. With Giryondo border post open again, Makhadzi has reopened to the public.

Interestingly, before the Kruger National Park was officially proclaimed this was an important post in the Anglo-Boer war. British forces were stationed here to prevent ammunition from Portuguese East Africa from reaching Boer commandos.

160 00

The toilets are decent (for long drops) and there are skottels available to hire.

Babalala

Babalala is about halfway between Shingwedzi and Punda Maria camp in northern Kruger on the H1-7. This lesser-known picnic spot is the best spot to stop after a morning on the magnificent Mphongolo loop, one of the most scenic roads in Kruger. A huge sycamore fig stands sentry over the picnic spot, with a thatched lapa built around it. Babalala is a lovely shady spot to stop on a hot day and is often visited by elephant bulls who come to cool off at the waterhole. This region of the park delivers excellent birding, especially in the summer months.

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110.00





The Picky view

....and the heat continues! No need to introduce myself as you hopefully would have read last month's article.

As this month went on, I really wanted to try something different. So off I went to sample the delightful gourmet spread from Anne's Cotton Club (on the R40), about 5 minutes out of town. The menu was happily not exhaustive, which seems to have added to the personal attention to, and quality of, the dishes that were served. And a good selection of dishes there was. It seating was initially a little confusing as the tables from Anne's Cotton Club, kind of melted into the restaurants table placements from next door - but that was sorted, and we settled down under the big trees outside. Being under the trees was very pleasant and relaxing, and it was well appointed and quite peaceful, despite the busy R40 alongside!

We were a tad boring in our selection of food - ideally, we should have had many different choices. But we opted for the melanzane and the vegetarian platter (with added avo) and a portion of homemade chips hand cut, and perfectly fried.

Well, we were blown away! It was unanimous that the

servings of melanzane were arguably the best melanzane ever! Maybe we were just very hungry, but it was outstanding. Clearly, it was freshly prepared – not oily, and not baked for hours on end. One comment was that it could have been accompanied by a fresh slice of ciabatta, with beautiful cold salted butter. Maybe that just comes from the fact that there was a 'bread addict' in the midst!

The tomato was light, and the amount of cheese was just right – great balance of contents met to perfection. Even though it was a warm day we did not feel that we had overeaten at all. Take note it seems that it was prepared there and then – a welcome change to the general restaurant norm. The taste of the melazane took us straight back to Sicily and the ambience and memories of the port trattoria!

The vegetarian platter with a side of chips was to die for - thank heavens we saw the chips going to another table and that was that. The dish was not an overly 'wow', but it was a great dish for the occasion, well prepared and tasty - on a hot afternoon under the shade with a glass of wine – close to perfection. The humus was fabulous, and I always enjoy a good pita, but I did add avocado, which I think

would generally be a good addition to the spread.

The chips - oh my goodness, the chips! They were hand cut, thick, crispy on the outside, soft on the inside, and "HAVE to be the best chips in town". At the time there was a unanimous vote of confidence in that assumption. We'll see about that going forward.

The only real small piece of counsel I feel, must be levelled at the waitron. No doubt she was on the ball and attentive, but slightly abrupt and imposing. She did interrupt from time to time and at a point, almost had her elbow in my face whilst attending to the table - a little more training and finesse I feel.

Wonderful lime and sodas - cold, lots of ice and not short of a good tot of lime. The glass of house wine was certainly quaffable, and nice and crispy and cold - perfect for a hot afternoon.

To round off our wonderful lunch we opted – as I often do on a whim (hence the figure) - to sample the desert delicacies. We ordered apple tart and cape brandy pudding. Wow!

The tart was fantastic, the apples were clearly freshly prepared in a sugary, cinnamon, buttery glaze. The phyllo pastry was crisp and light. It was a taste and texture delight.

Then came the cape brandy pudding – brace yourselves Hoedspruit! This was a taste sensation, with a festival a flavoursome, moist, soft, date-loaded sponge, dripping with brandy sauce served with a dollop of freshly whipped cream. The fight was on for the last piece, and we were all in agreement that we would all certainly come back to sample this wonderful masterpiece again!

On our return I may even decide to follow the advice of Ernestine Ulmer who once said - "Life is uncertain. Eat dessert first."

The 'damage' was on the upper side of the scale, but we all agreed that the quality of the food was worth every cent spent. Well done to the Anne (who I have not yet met) and her team. I'll be back! AE



Melanzane (above), Cape brandy tart & apple tart (below) handcut chips (below left) Images: AE





Recipe by Veggie Diva



Where do you get your protein...? A question vegetarians and vegans are asked regularly.

The building blocks of protein are amino acids which are found in a variety of foods. Lentils are a good source of some of the essential amino acids our bodies need. This month I'm doing Lentil Meatballs.

Lentil Meatballs

Ingredients:

- 1 x tbl spoon olive oil
- 1 x large onion chopped
- 2 x cloves garlic crushed
- 1 x tbl spoon chopped parsley
- 1/2 x tsp dried thyme
- 1/2 x tsp smoked paprika
- 1/2 cup dried lentils (personally I like to use brown lentils)
- 2 x cups vegetable stock
- ¹/₂ cup walnuts
- 2 x tbl spoons chickpea flour

2 x tbl spoons ground flax seed 2 x tbl spoons nutritional yeast salt/ pepper

Method:

Heat the oil and fry onions until soft and translucent. Add garlic, thyme, parsley, paprika and lentils. Fry for 1 minute.

Add the water, bring to the boil then reduce heat and simmer until tender but not soggy. Approximately 25 minutes. Heat oven to 200 degrees C.

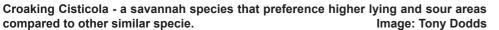
Drain lentils and transfer to a large bowl.

Finely chop the walnuts and stir into the lentils with chickpea flour, ground flaxseed and nutritional yeast. Form small balls, place on a baking tray - if you need more chickpea flour add another tablespoon or two to bind the mixture.

Wetting your hands will help with rolling the balls. Bake for 30 minutes or until brown and crispy. Serve with napolitana sauce on a bed of spaghetti.

As a birder, understanding habitats is an advantage







Rudds Lark - a small, critically endangered passerine that requires very specific conditions in order to survive. Image: eBird

Mike Meidlinger

While watching the vegetation take full advantage, of what has been for most of us, a healthy onset of summer rainfall during the past month, one of the most obvious but perhaps least noticed changes that permeates around us is in the growth of natural vegetation of all kinds.

Not only does the increase in greenery and other vegetative matter support new waves of arthropodic herbivores, but it also provides cover for the commensalistic act of nest building and then breeding. While there are small shoots and buds, species such as the Grey Go-Away-Bird might take advantage of the new leaves themselves, but true herbivory in birds is, in fact, quite rare. linked to two aspects, the geographical location and what types of habitats are present. To determine what could be on the menu, in terms of habitat, there are a few things to think about in order to get to a short list.

The first is which biome or ecoregion one is in? This would also be naturally linked to the geographical location, such as the lowveld savannah, or the grasslands surrounding Johannesburg, etc. Another major thing to be constantly aware of, is if there are changes, thus being able to take note of each individual habitat found while moving through an area. Habitats can be small or vast, but in many cases, several of them can be noted within a single view from even a modest vantage point.

Three-banded Plover, other waders, or herons on the shoreline, Tawny-flanked Prinia and Red-faced Cisticola in rank vegetation or Little Rush Warbler in reeds. Having Rattling Cisticola or Tchagras in grass clumps, White-browed Scrub Robin in the mid-layer and a Blackbacked Puffback or Yellowbreasted Apalis higher up in the trees are all a result of understanding what specific habitat each bird likes to be in.

The knowledge of what each species requires comes through reading through information in field guides, following the advice of others as well as by paying attention while out birding. Much can be pieced together simply by being observant, especially when it comes to local or already Rose-ringed Parakeet -an invasive that is taking advantage of the nature of humans, our homes and cities. Image: John Edwards

at an intermediate level, having some basic knowledge on this topic can mean walking into an area, and already having a good idea of what to look and listen out for. Assessing botanical communities for their avifaunal potential is truly a secret skill that the best bird guides, and experts, use in their armoury. It allows them to identify excellent opportunities, not just for a big list, but in some cases, for species that are difficult or highly sought after.

So, what are the principles of habitats, and more specifically, how do these apply to birding on a day to day level? Firstly, birds are found in almost all habitats, but that doesn't mean that all birds are found in all habitats. As with other organisms and classes, some are generalists and others are specialists. It is, as always, not quite as polar as that, as there can be a variety of how specialized various specialists are. Generalists are easy to distinguish and tend to be some of the most familiar species. Why is this? Well because they can be found almost everywhere. Lowveld species like Darkcapped Bulbul, Laughing Dove, Southern Grey-headed Sparrow, Brown-hooded Kingfisher and Fork-tailed Drongo are all examples of generalists that are found in a wide range of settings.

Many birds simply require broad set of parameters of the right kind. This can be in familiar places, like reedbeds around waterbodies, or when in open grassland in savannah - each of which holds their own collection of birds. Equally though, the same principle applies when in unfamiliar zones. Some bare rocky outcrops somewhere in the escarpment, for example, could undoubtedly hold Cape Rock Thrush, Buff-streaked Chat or Nicholson's Pipit, just because of what they are, and where they are. There are also a handful of usually scarcer birds which are dependent on very, very, specific conditions, which

themselves may or may not be a fundamental limiting factor to the success of those species. Birds such as Rudd's or Botha's Lark, White-winged Flufftail and Blue Swallow, are largely limited by their specific habitat preferences, and are thus treading a fine line between being classified extant or extinct.

Even within a familiar biome, such as the savannah, understanding the habitat needs of less common species often leads to success. Sourveld birds like Pale Flycatcher, Bushveld Pipit, Shelley's Francolin, Flappet Lark and more, are all best located by considering their preferred surroundings.

The size of individual habitats themselves can be from a small stand or area, to vast swathes of monotonous terrain. It is often surprising how many species can be found in even the smallest amounts of habitat, especially if it is excellent or pristine. Narrow valleys of secondary forest for example, that drape down mountainsides, hold species more typical of primary gallery forests. Species like Olive Bush Shrike, Green Twinspot, Blue-mantled Crested Flycatcher and others, survive far from strongholds within metre-wide belts of lush vegetation. This is a classic example of how habitats really do dictate what species can be found.

There are specific habitats

a handful of generalists. Cisticola's are perhaps the best example of this, followed by the Larks, then Warblers and Pipits as well, all partially or holistically bound to one habitat or another.

When discussing this concept, it can't be complete without one final note on the urban environment. The habitat we have generated is like no other, and there are birds that have adapted around and in spite of us. Birds like House Crow, House Sparrow and invasives like Common Myna or Roseringed Parakeet, are all species that have learnt to take advantage of our excess. The most extreme example of this lies in America with the Purple Martin, which is solely dependent on human structures for survival in both breeding and nonbreeding seasons.

Small slivers of natural habitats left between modern cities yield an incredible amount of diversity, particularly here in South Africa. Within Johannesburg birds like Orange River Francolin, Red-chested Flufftail, Short-tailed Pipit, African Grass Owl and more all occur. Durban has forests species like Spotted Ground Thrush, Knysna Warbler and Mangrove Kingfisher, not to mention the pelagic boat trips for the rare Barau's Petrel. Cape Town, one of the world's best spots for oceanbased sea birding, also lays claim to an incredible diver-

Thus, a bloom in vegetation is generally associated with good times ahead for nectarivores, frugivores and granivores relying on flowers, fruit, and seeds respectively. This is alongside the obvious boom in prey numbers which supports the vast diversity of passerines and other insectivores.

Seasonal changes in vegetation offer a wealth of fascinating implications for birds, but it is an awareness of the habitats themselves that is of utmost importance for those who go birding. Knowing what kinds of species to expect in an area is directly

For example, if approach-

ing a dam in an area of lowveld savannah, potential habitats could include the open water itself, a muddy shoreline, damp rank vegetation or a small clump of reed, grassy clumps in the understory of woodland, a patchy raisin-and-buffalo thorn mid-layer thicket and a middle-to-upper canopy of bushwillows and cluster leaves. One would also consider the various types of woodland, sweetveld or sourveld, is there a rocky element, do trees overhang the dam, etc., and knowing to expect Little Grebe or cormorants on the water,

familiar species.

Essentially, the habitat choices of each species are inseparably linked to, and are a direct consequence of, their ecological niche. An ecological niche is simply the space that an organism fits into within the ecosystem. This metaphysical construct is one which they each fill, or carve out, for themselves. This is amidst the riot of other living things, all competing for a sustainable piece of the nutrient pie available in any one area.

Having an even rudimentary appreciation for habitat can help immensely in isolating a bird's identity. Even that have specific birds, the aforementioned forests are one of these, as are mature stretches of Mopane, while the Brachystegia (commonly known as miombo) woodlands of Zimbabwe and further north, are another. Having an appreciation for how different ecosystems support differing avian communities, adds fantastic insight when tackling the challenges of birding and separating sometimes similar looking species apart. In many difficult cases, the members of the famous 'LBJ' families are often, first

and foremost, found in one

habitat or another with only

sity of endemics. These are but a few examples of the over four hundred species that can be found between the country's three major cities.

This month, in order to learn about birds and the habitats they prefer, one of the easiest ways, while out birding, is simply to start taking note of where different species can be found. After a small amount of practice, it is surprising how much can be gleaned and assimilated into a more complete, but also more categorized, view of the natural world.

Happy birding!

Snakes alive - the Mozambique Spitting Cobra



Johan Marais African Snakebite Institute

Three-month old Tshepo was fast asleep in his bed when, around 22:30, he started screaming. This was not his usual attention-seeking cries, this sounded quite agonizing.

His mother rushed over to his bed and picked him up. He was squirming and crying out loudly. A few drops of blood soaked through his vest high up on his chest, and she immediate realized that there was a problem. While still puzzled and trying to work out what was going on, Gladys called her husband in a panic and as he arrived in the room, he noticed a large brown snake disappearing under the bed.

Both ran out of the room with little Tshepo and called the neighbours to help. While walking to the nearest road to await transportation to hospital, one of the neighbours killed the snake – it was an M'fezi (Mozambique Spitting Cobra).

It took close to an hour to get Tshepo to the local hospital, and by that time a dark patch had already formed just above the bite marks on his chest. As the local hospital had no antivenom, Tshepo was transported by ambulance to the regional hospital, but only got there about two hours later. He was treated with six vials of polyvalent antivenom, a product of the South African Vaccine Producer, that is used for the most serious snakebites in South Africa.

Tshepo developed an aggressive bacterial infection known as Aeromonas. He died two days later.

The Mozambique Spitting Cobra (M'fezi), is a common snake throughout much of southern Africa, occurring from south of Durban throughout much of KwaZulu-Natal into Swaziland, eSwatini, Mozambique, Mpumalanga, Gauteng, Limpopo, Northwest Province and elsewhere further north. It averages around 1,2m in length but can reach 1,8m. Though primarily active at night, it may also hunt during the day. It feeds primarily on rodents, frogs, and other snakes, especially the Puff Adder. It is locally abundant, living under rocks and logs, in termite mounds and often found close to water. It may be attracted to homes where there are rodents and frogs or poorly maintained gardens with shelter in the form of building material or piles of rocks.

The venom of this snake is primarily cytotoxic, causing severe pain, swelling, and tissue damage. In small children and pets, it may also affect breathing. In addition to biting, it can also spit its venom as far as 3 m. As very little venom is spat each time, it can spit more than a dozen times. The spitting action is very effective, and the snake aims for the eyes. On the skin the venom does no real harm and can be washed off, but in the eyes it causes instant pain. Victims need to rinse their eyes with lots of water and see a doctor, who will examine the eyes and prescribe an antibiotic ointment. Recovery usually takes two or three days and there are rarely serious complications.

snakebites in South Africa, the Mozambique Spitting Cobra is on top of the list and is probably responsible for most serious snakebites. Many victims are bitten in the face, or on the chest or arms while asleep in their beds. This does not only happen in rural areas where people often sleep on the floor - it also happens in exclusive game lodges, where overseas visitors are paying thousands of rands a night for their room.

It was often thought that these "bed bites" were because of snakes seeking heat and accidentally being rolled on, but having studied hundreds of cases, it is evident that these snakes are accidentally ending up in houses while hunting. On them finding a sleeping mammal, they are biting in a feeding response - literally mistaking humans for meals!

Entrance is usually though an open door or entering under a door if there is a gap big enough for you to squeeze a finger through. Open windows are not much of a problem, unless there are plants growing up against them.

Preventing such bites

only one out of ten snakebite victims that are hospitalised need antivenom, most Mozambique Spitting Cobra victims need antivenom - and urgently. The dosage should be in the region of 10-12 vials of polyvalent antivenom, and sooner rather than later. We now have good evidence that shows that if antivenom is not administered within about four hours following a Mozambique Spitting Cobra bite, it is ineffective and not worth giving. Doctors then must wait a few days to assess the extent of tissue damage before commencing with surgery.

Mozambique Spitting Cobra bites are common with around 40 - 60 babies and children getting bitten every year in South Africa. It is far better to take the necessary precautions to prevent a bite than treating it.

If anyone sees a snake in a house, it is better to call in a professional snake handler to clear the snake from the house. The African Snakebite Institute has developed a fantastic **FREE app** for your mobile phone that is wonderfully informative and has all the necessary details of professional snake handlers in your area. You can get the free app on the link http:// bit.ly/snakebiteapp.







By the next morning some blisters had formed and over the next few days a necrotic wound had formed. Despite keeping the wound clean and replacing the dressing daily,

If one looks at serious

is quite easy – seal off openings by having mosquito doors installed onto all exits, sealing off gaps under doors with rubber of sponge, and by sleep-

ing under a mosquito net. Snakebites are very expensive to treat, and a bite from a Mozambique Spitting Cobra will cost far more than R100 000 to treat.

In the event of someone being bitten by a Mozambique Spitting Cobra, forget about first aid measures. There is nothing that helps. Get the person to the nearest hospital with a trauma unit. While

Johan Marais is one of Africa's leading herpetologists and is CEO of the African Snakebite Institute. He is a best-selling author, a compulsive photographer, and a travel addict. Check out the website on www. africansnakebiteinstitute.

com

A series of Mozambican spitting cobra images taken by Johan Marais, CEO of the African Snakebite Institute.

Are African wild cats feral and are Honeybadgers aggressive ?

No, in fact the very opposite is true – the house cat is essentially a domesticated wild cat.

The wild cat is a naturally occurring species in its own right, pure specimens having stripes on the legs and tail, sometimes pale stripes on the body, black garters on the legs, rufous ears, and loger legs than 'tabby' cats. These features tend to be diluted or lost when inbred or crossed with domestic or true feral (domestic gone wild) cats. Indications from Egypt are that African wild cats may have been domesticated as far back as 4000BC, and since then found their way around the world and, like dogs, have taken on many forms owing to selective breeding. The European wild cat – very similar with shorter legs and longer hair – may also have been domesticated long time ago and complemented the Egyptian population.

Are honeybadgers aggresive?

They are certainly formidable. There are in fact, few animals in the bush, regardless of size, with more tenacity and confidence in their ability than the honey badger. In my experience I would have to say they are *not* aggressive, but are short-tempered and very dangerous when harassed

or annoyed.

Their ears are able to close up. This aids in not only preventing the entrance of soil during digging, but also in preventing stinging and biting insects from harming them. Honey badgers have a thick skin, although it is not impervious to snake bites, scorpion stings and bee stings. It fits loosely, allowing them to turn on attackers when being held. They also have very powerful vice-like jaws equipped with a formidable set of broad crushing teeth, although they lack canines. This capacity, together with the long powerful claws (which give them digging abilities not far off those of the aardvark), their anal glands and an unpredictable disposition, make this an animal to be avoided.

If pursued or approached too closely, they will often turn and charge, teeth bared and accompanied by vocalisations, at foes much larger than themselves. I know of numerous occasions when individuals have attacked vehicles, even going as far as biting the tyres. I once had a male turn and charge my vehicle when I approached him and his mate. They were investigating a hole in a termite mound, and from about 25m, without warning, the male came running over, growling with head lowered, but stopped 10m from my vehicle. He

re-joined his mate, and they both scurried away. I have, however, observed badgers many times since and they have not displayed the slightest sign of aggression. Most invariably run off when disturbed.

Indeed, there are many records of honey badgers having attacked big cats in selfdefence (lions and leopards tend to avoid them), appropriating kills from other predators, and killing a wide range of animals (even wildebeest). In one case in the Sabi Sands one killed a pangolin (the final stage of the encounter being witnessed by other guides). They are probably only threatened by lion, leopard and clans of spotted hyena. The hyena is not as cunning as the two big cats, and is less likely to attack this ferocious animal. They are so formidable that I have seen five lionesses in the Okavango put to flight by two badgers in a bad mood, and I have also witnessed a pride of seven lions giving up an attack on a single irate badger in Etosha.

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

Purchase for a discount of 30% at <u>https://jacana.</u> co.za/product/beat-aboutthe-bush-mammals/

Coupon code **BATB30** is valid until 31 December 2022



Honeybadger (top) African Wild Cat (above)

Photo: Gerrit Rautenbach Photo: Canva

Mica – the shiny flakes found in rocks in the Hoedspruit area



ers, the flat plate that the es on the very early earth. elements wrap around is There are many interestir facts about mica. The work

In the past, very large sheets were used to make windows.

Another popular use is in cosmetics - the rock is ground into fine flakes that add shine and sparkle to makeup. There are many interesting facts about mica. The word *mica* is said to have derived from the Latin word *mica*, which means 'a crumb'. It is said that this name was probably influenced by the word *micare*, which means 'to glitter'.

Biotite was named after

in cave paintings that date back to the Upper Palaeolithic period from 40 000 BC to 10 000 BC.

The largest crystal of mica was found in a mine in Canada and it was some 10m x 4m x 4m and weighed about 330 tons.

The value of mica is attributable to its unique physical ity from opaque to transparent, and they are reflective, refractive and resilient.

As you can see, mica is an impressive mineral.

John has a continuous curiosity and an abiding passion for sharing the stories of South Africa's remarkable biodiversity, rocks and landscapes. Based in KZN, he offers geological learning adventures throughout South Africa. Check out www. johnroff.co.za.

Gneiss showing tiny flakes of Biotite Mica Image supplied

John Roff Nature and Geology Guide

Mica has a shiny flaky look, and is one of the main components of granite and gneiss, which are the common rock types you'll find around Hoedspruit. Next time you find a piece of granite or gneiss, have a careful look for shiny mica flakes in the mix of minerals.

There are several varieties of mica, with the two commonest in this area being Muscovite and Biotite. Muscovite is clearer, and can form very large sheets, whereas Biotite is smaller darker flakes, and usually found in Granites and Gneisses.

Big sheets of mica are used for electrical insulation. If you look into certain toastMica flakes are also added to paint to make it tougher and more weatherproof. The name of a popular building and hardware chain in South Africa probably comes from this property.

Mica is also found in sedimentary rocks, often as small shiny flakes in sandstone and shale.

On the way from Hoedspruit to Mica, (named after the large deposits of high quality Muscovite mined there), just before 3 Bridges, there is an outcrop of schist on the left-hand side of the road. It contains prominent flakes of mica, formed by continent-building processJean-Baptiste Biot, a 19thcentury French physicist who studied the optical properties of micas; and muscovite was originally called "Muscovy glass" because it originated from the

cause it originated from the Muscovy province of Russia. Micas are found in all three major rock types — igneous, sedimentary, and metamor-

phic. The use of mica by humans dates back to prehistoric times. The civilisations in Rome, Greece, Egypt and China all had knowledge of mica and its uses. Even the Aztecs utilised mica. The earliest use of mica by humans is said to be found

properties. Amongst many properties, sheets of mica are inert, elastic, platy, very light, insulating, flexible, hydrophilic, they differ in opac-



Some fun facts about our universe

Andre Gouws

As you are not having a submission by Ben Coley this month, I thought it might just be a little fun to have some quirky facts about the universe to ponder upon. So here goes.

The universe is so big that it has been calculated to span a diameter of between 95 and 150 billion light years.

I really would love to explain how far that is, but it's a pointless exercise as it is just too large a number for us to comprehend! What's more, the universe is expanding at an accelerated rate.

How old is the universe?

The universe has been estimated to be 13,7 billion years old. Again, I'm not going to try and explain that number, suffice to say that its very old.

Space is completely silent.

Sound waves need something with molecules to travel through and since

there is no atmosphere and no molecules to vibrate (causing sound) in the vacuum of space, there is no sound.

The universe was hot when it was young but is getting colder as it gets older.

We know from extrapolation of the Big Bang, that the universe was infinitely hot at birth and has been steadily cooling as it expands. It has been predicted that at the age of one second the temperature could have been 10 billion Kelvin compared with today's average temperature of the universe at 2,725 Kelvin.

We cannot count the number of stars in the known universe.

We have no idea how many starts there are in the universe - we cn try and estimate how many starts there are in our own galaxy, the Milky Way. We can then multiply that by how many galaxies we estimate are in the universe and we

come up with a number that is purely guess work but interesting, nonetheless. NASA says zillions (an uncountable amount) but an Australian National University study put their estimate at 70 sextillion. In 'real numbers', that's 70 000 million million million stars.

More energy from the sun hits earth every hour than the planet uses in a year.

Solar energy usage has increased 20 percent year on year over the last 15 years and that's not even bringing the Eskom disaster into the mix! Solar accounted for 3.6% of global electricity generation in 2021, and it remains the third largest renewable electricity technology behind hydropower and wind.

And the final one, with the Artemis project well underway - the astronaut footprints left on the moon by the Apollo expeditions will probably stay there for at least 100 million years. Because the moon has no



Image: Sergey Nivens

atmosphere, there is no wind or water to blow or wash away the footprints.

prints and interference on the moon will be there for a very long time. But the So, all the human foot- moon is still dynamic and

small meteorites will eventually blast the traces of human endeavour away.

11

Kigelia Africana – the sausage tree

Brett Heasman **Guiding Naturally**

This month we have another BANGER of a tree. This fascinating species is most probably one of the easiest to be recognized (along with well hung folklores), the enormous elongated fruits are no doubt a conversation starter.

Hold back the mash and gravy folks, these extraordinary fruits are somewhat of a let-down. Almost always left to rot under the tree, these well-endowed sausage shaped fruits are utilized in various ways by us homo sapiens, but eating them is at the bottom of the list as they are somewhat poisonous in the unripe stage to humans. The only edible part are the seeds and only if after collecting them they are roasted - and even this was only done in times of famine and as a last resort. However, the ripe fruit is often baked and used to aid fermentation in the beer making process, so I guess it does have a level of importance. The fruit has an array of different medicinal uses, the soft inner mass is applied to the joints to assist in helping with the pain caused by arthritis. I do however doubt that it will reverse that hip replacement the doctor ordered. It is believed to also help with treating sore backs, and the pulp and fruit is used in alternative ways to cure syphilis, skin ulceration, acne, stomach troubles in children, lactation problems for women,

and the most infamous of all uses is in the rituals to possibly enlarge one's own sausage! The powdered fruit is applied to a baby's body in the belief that it will become fat and healthy one must be very cautious to avoid the head, as it is believed to cause swelling of the brain. The plethora of uses doesn't stop with the fruit, the bark is used as a means to treat wounds, epilepsy and tooth ache.

The tree itself is often cut down to build dugout canoes known as mokoros, and many other tools because the wood seldom cracks. The fruit and roots are also used in red and yellow dye that may brighten ones day.

Amazingly a large number of animals do supplement their diets with these ever so large sausage fruits

believe it or not, hippopotami who are grazers and bulk grass feeders, are fond of these monstrous fruits,



The magnificent Kigelia Africana (above) and the sausage-like fruit (below)

ers when they drop on the floor after a night of feast-

along with porcupine, giraffe, baboons monkeys and squirrel, whilst the browsers like elephants and kudu, will relish the leaves throughout the year.

In spring time the tree will flourish with a sudden onset of these large red trumpet shaped flowers. Although they are super pretty, they do not smell very nice. This does not put off our common nectar feeding birds, butterflies and insects that take advantage of them. The tree is also believed to be pollinated by bats, who play a critical role, not only in pollination but allowing others to feed on the flow-

ing on them.

The tree have a lovely typical mushroom shaped canopy, which creates a great place of shade for the resting animals and humans. In fact it is often used in certain cultures as an area of religious gatherings. But one must be warned that the next time you see one of these fascinating trees, remember not to park your car, camp or sleepout underneath these trees, and stay clear of the (up to) 12kg fruit that hangs above your head, because at some stage they will drop, and rocket to earth with a thud.



Pleasures and frustrations of caterpillar rearing

Ian Sharp

This article is the final review of caterpillar rearing. Caterpillar rearing can provide some amazing results providing much pleasure with each new species reared. However, the process can be fraught with frustration, as there are many hurdles nature has put in place and that the unnatural rearing conditions may lead to. This article will touch on some of the aspects, but not cover everything that may await an unsuspecting 'venturist' into the world of caterpillar rearing.

As with silkworms, looking after collected caterpillars does take time and dedication. The major difference, depending on how committed you are, is that there are a variety of species and therefore a plethora of larval host plant species preferences. Having 40-50 different caterpillars to attend to, means that a "shopping trip" into the surrounding bush may be required to collect food for each individual.

To achieve a successful rearing will require substantial effort, other than collecting appropriate food for each specimen. Cleanliness is a major consideration, as containers need to be cleaned of frass (poop) and dead plant material daily. Living in the Lowveld with high temperatures and humidity, creates an ideal opportunity for mould to establish in a container, growing on the frass and old plant material. Excessive mould may overwhelm the caterpillars, or even pupas, that are set aside awaiting eclosure (the emergence as an adult from the pupa or as a larva from the egg).

The success rate of rearing caterpillars can be a bit disappointing – I personally work on a rate of around 40-45%, and that's after attempting to rear more than 3000 caterpillars! However, the thrill experienced with each successful rearing is addictive. With each new species reared, I just want-



Wherever I would go, for work or pleasure, my eyes would wander to the surrounding foliage, scanning for the tell-tale signs of caterpillar presence. A wonderful excuse to get some relief from a boring meeting or conversation!

Providing fresh material to each caterpillar on a daily basis is so important, as wilting leaves can be toxic to the caterpillar in the same way as it is to game animals kept in holding-bomas. Most feeding is done at night, so not much activity will be noted during the day. As caterpillars go through from one instar (a phase between two periods of moulting in the development of an insect larva or other invertebrate animal) to the next, they will become inactive until the shedding of their skin is complete. Another period of inactivity is prior to the pupation phase. This is usually indicated by a colour change too - what we refer to as the 'pink' stage. Another inactivity cause is the dreaded result of parasitism.

fatalities. Every stage of caterpillar development can be parasitized in one form or another. Incredibly, even the smallest of eggs can be parasitized! A moth or butterfly egg half the size of a pinhead can produce a parasitoid. Caterpillars are often collected, and once photographed, parasitoid eggs can be seen in enlarged images, attached to the caterpillar body. Parasitoids either pupate within the body of the caterpillar or emerge to pupate in cocoons, attached all over the bodily remains of the parasitized caterpillar.

Insert parasitoid image here.

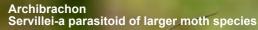
Fly parasitoids are more dramatic, they can become evident during the caterpillar phase or the pupal phase of certain Lepidoptera species. After feeding within the caterpillar or pupa, the maggots will emerge, sometimes leaving a slimy trail down the side of the container, to pupate on the bottom. In nature they would be dropping down to the soil below, digging in and pupating in the soil like

made during the rearing of a specific caterpillar, contributes to the knowledge on the life history of this specific individual. Not only should the different stages of the lifecycle be photographed and submitted with all the collected data to the CRG, but the adult specimen should be placed in a vial and frozen to preserve the specimen for pinning and later identification. The same is applicable to the parasitoid as information on parasitism of Lepidoptera is also hugely important in the understanding of the life histories and ecology of each individual species.

portance. Any observations

If truly dedicated, the pupa casings can, furthermore, also be preserved and forwarded to the CRG. The importance of this is in the identification of the species. The pupas also have certain specific characteristics eg: the pupal clasps, that can contribute to a successful identification of the individual species.

And with this I conclude a short review of caterpillar rearing with the goal of





As a 'citizen scientist' your contribution can be just as meaningful as that of a specialist scientist, ultimately leading to the discovery of an undescribed species of which there are many, espe-

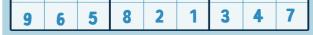
cially in the 'moth' group. In the next article I will look at some of the achievements of the CRG over the last 10 years and touch on some newly described species from the Hoedspruit area.

SUDOKU ANSWERS

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ed to see more, new eclosing moths and butterflies from my rearing attempts. Parasitoids are one of the highest and most prominent causes of caterpillar information is of great im-

most flies do. In terms of the CRG, all edge on our wonderfully information is of great imdiverse Lepidoptera group.







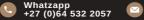
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The Aerotel VIP – a fabulous welcome to SAL

Travel Correspondent

Everything was in place for a fantastic opening of the new Aerotel VIP. Drinks were served on arrival and we were spoiled with a wonderfully catered and hosted afternoon. We were privileged to be part of the selected guests, as invitees to this event. Even the Mayor was there! The hotel overlooks the bushveld and has wonderful vistas of the northern Drakensberg mountains.

It is unusual to be in a hotel that effectively is an aeroplane. Martin and Tracy have done a great job on this beauty - wellappointed and finished off, the plane is elegantly decorated and will serve its time now as an exclusive hotel destination – right here in Hoedspruit.

The history of the plane is a colourful one. It is a Boeing 727-191 (aka SAL), with the deregistered number of J2-KBA, and it has travelled some distance on its way to the heart of Limpopo.

The plane entered service on the 2th of June 1967, in Denver Colorado, USA, at Frontier Airline and remained in the United States for over 20 years. It then was commissioned to Dart Airline in the Ukraine, and a few years later found its way to Africa, and was operated and flown by Aeronexus. SAL was further to be the private jet for the

Martin and Tracy den Dunnen President of Djibouti for over 10 years. SAL eventually found itself in South Africa, and was finally grounded in 2012, never to fly again.

> SAL rose to fame a few years later, becoming part of the first aeroplane hotel in South Africa and indeed the southern hemisphere in 2022. It was restored and rebuilt into a three room, six sleeper, Aero Villa.

Transported by road from Johannesburg to Hoedspruit over a period of 5 days, it was re-assembled and then reworked, buffed, polished and furnished, to spend the rest of its days overlooking the northern Drakensberg mountains and the glorious African bushveld.

It's well worth a visit, and for the curious, it holds the promise of being a fantastic destination and stay.



The entrance and deck (above), lounge (below left) and bedrooms (below right)

Images Supplied



Spotlight time

Local Correspondent

As I bounced around Hoedspruit, fighting with an air conditioner that was playing up in the car, I happened upon Paintsmiths Hoedspruit – I wasn't meant to go there but fate

'challenge'.

It turns out that Lizelle is married to Craig (a big 'oke' that she met one day on site), has a son William (7), and basically describes herself as the "chief cook and bottle washer". My brief encounter that day, and subsequently, was such that I feel she is almost 'one of the boys'. Having grown up in Richards Bay, she always had in mind that she wanted to do Hotel Management and Catering. She went off to do a degree in BComm Hotel Management but for reasons, decided not to complete the degree. She then went and worked for eleven years in the hotel/catering world before moving on to work for BHP Billiton Mozal in Mozambique for two years.

town 16 years ago, never having been here, and subsequently has never left! She has been in her own business since then. On a whim she bought a paint franchise – knowing nothing about paint and flooring. She spent the first part of

vourite song is 'Woman' by Mumford & Sons. She views that her greatest achievement was keeping her head above water during the Covid crisis – "it was not easy carrying on when the times were tough". On par with that she would like to put what an asset she is to the business and the community as a whole. If you want to get great insightful help in all aspects to do with paint - she is the go-to.

Thanks Lizelle, I thoroughly enjoyed our time together, and to close with Lizelle's

make it happen".

As a postscript - I did walk out with two tins of paint!

Paintsmiths Hoedspruit / Lizelle can be contacted on 078 304 2034, or email: lizelle@paintsmiths.co.za

dealt its hand on this particular afternoon.

As I entered into this wonderfully cool (temperature wise) space, I was met by possibly one of the bubbliest people that I have met in Hoedspruit, Lizelle Bigalke. As it turned out, Lizelle is the owner of **Paintsmiths** Hoedspruit. I was certainly drawn in by her enthusiasm and demeanour - although I do think that she was somewhat surprised, when I decided, off-the-cuff, that she should be my next 'Spotlight Time" victim! I did catch her off guard, but she soon warmed to the

On being asked to help tart up a friend's house in Magoebaskloof, she rolled into

the business journey in the application of floors, and then steadily progressed to paint sales.

A self-confessed emotional and highly strung person, Lizelle is not afraid of adversity, but when all else fails resorts to keeping her sense of humour. She is an avid dissectologist! Hah! I knew I had you all guessing. Well, this is someone that loves devoting spare time to doing jigsaw puzzles! We've all learnt a new word now. She has been involved in this over the last 3 years, and

Lizelle's favourite band is REM, and her current fa-

loves it.

being a boss, a wife, a mother, and a sister - all in one! Having said that, she gives

credit to the help of her entire support structure which contributed to her making it through.

She hates conflict - especially when brought about for no real reason, but always views life as a get up and go situation. I can vouch for that – two cups of good coffee later, and plenty sideline chat, I knew I had to 'get the hell out of dodge' or I may be there for a very long time!

Personally, I believe Paintsmiths Hoedspruit can be proud of Lizelle, and

quote for life - "Get up and



Learning to live with wildlife





Graeme Wuth

According to the UN, Earth's 8 billionth person was born in mid-November. It is an arbitrary number insofar as there is no immediate change to our daily lives - but it is a significant marker for our increasing impact on the world. Those who are in touch with nature are more likely to value it, appreciate our dependence on it, and be cognisant of our impact on it. Southern Cross Schools is ideally positioned to establish an awareness of our critical link with nature.

In the past 50 years, the global population has more than doubled. This rapid increase has resulted in worldwide sustainability challenges – our growth has out-paced our rate of adaptation to more sustainable living practices, and as our population burgeons, so competition for land and resources increases, and habitats are lost to the detriment of all - humanity and the natural world.

Human-wildlife conflict (the competition for land and resources, and the threat that both humans and wildlife pose to one another when forced into contact), is an tion between people and wild animals is part of our everyday lives. It is something that makes SCS so special; we are positioned to be at the forefront of learning how to accommodate the natural environment around us, while still developing a modern school.

Since opening 20 years ago, a common conversation and memory of past learners are the wild dogs that run past the school during morning meetings, or leopards spotted walking through the school in the evenings. In the latter part of 2022, a leopard has been frequenting the school property. Of course there is concern for safety, but the solution is not simple. Relocating the leopard only opens the territory up to another leopard to take its place, and there is already limited space for wildlife. Moving the leopard will likely only place it in another leopard's territory. Then, there is an ethical consideration over whether we have the right to move animals when and where we please, not to mention killing them because they pose a threat. If we adopt the mentality of killing dangerous animals when they come into regular contact with us, an expanding human population would call for increased killing and therefore increased threat to wildlife. Sadly, this has been the case throughout history worldwide, and the threat is exponential with our exponential growth. Thus, the SCS solution has been to set up camera traps around the school to monitor the movement of the leopard and other animals, which then guides our activities and movement around the school. Learners are taught how to behave around wild animals and how to respect them. Furthermore, sightings and

discussion of wildlife, foster an interest and often a passion for nature. Such passion is essential if we are to preserve the world we live in for our mutual benefit.

Engagement with nature fosters a respect for nature, and this respect naturally leads to the adoption of sustainable practices. SCS is a 'bush school' - we have the wilderness on our doorstep - and part of its niche relies on driving an environmental agenda. In addition to learning amongst wildlife, SCS has a number of activities and lessons that are focused on the environment as a whole and with what is on our doorstep. Every child at the school, from toddlers in the preschool through to matrics in the college, have a weekly Bush Lore or Enviro lesson, where they get out of the classroom and into nature, learning about and engaging with their natural surroundings. An effort is also made to have lessons outdoors as often as possible. More formally, in the college, there is an Eco-Club that meets twice a week to discuss ecological issues and learn about the bush, by attending talks given by experts in various envihumanely.

For those learners who are passionate about nature, and enjoy immersing themselves in the wilderness, SCS through EcoTraining, has started arranging an annual 4-night/5-day primitive trail, where learners carry all their supplies on their back, sleep under a canopy of stars, encounter big game on foot, and are taught to read the bush. It is on these trips that the magnificence of our African wilderness is fully appreciated, and a love and respect for the wild truly seeps into our hearts. The memories forged and experiences change one's perspective of the world and our place in it. Despite our ability to shape the world, we are a very small part of something much greater than ourselves. In April 2022, eight SCS learners went to the Makuleke Contractual Concession in the Pafuri region of the Kruger National Park. It was an exceptional experience. Next year's group will go on a trail in Tuli, Botswana.

All schools can have lessons about climate change, the impact of population growth, and living sustainably, and some no doubt

Southern Cross learners of all ages engaging with nature Images : Supplied



increasingly salient topic if we are to preserve the natural world while sustainably accommodating our immense population. Our growing population and subsequent concrete development, destroys habitats and squeezes wild animals into human contact, intensifying human-wildlife conflict. Sustainably managing our population and environmental impact requires us to learn to live with wild animals.

Because Southern Cross Schools is located in Hoedspruit, on a wildlife estate on the boundary of the Greater Kruger, the interac-

ronmental fields, going on walks on the wildlife estate, and attending courses and field experiences with those working with wildlife. The College also has an Environmental Committee which aims to arrange events and activities that raise awareness of environmental issues. These range from quizzes and movie nights, to talks for the school about environmental issues, or interesting nature-based projects happening in our community, such as the use of contraception for elephants in Selati Game Reserve, to manage the reserve's elephant population

do so very well. But those schools in the cities will always have these lessons with the environment at arm's length. SCS is able to remove the disconnect between humanity and nature. By doing so, the natural world is valued and appreciated for its own sake. This creates intrinsic motivation to protect it and an awareness of our place on Earth. We have a right to be here, but so does the rest of nature. We are part of nature and depend on it more than we realise. We should not exercise our right at the expense of everything else.



Women that fish...

Marna Meinties

Between 3 to 6 November 2022, St Lucia Ski-Boat Club hosted a 'ladies only' fishing tournament, called the **Queens of the Ocean Ladies** Deep Sea Angling Tournament 2022. Four intrepid ladies from Hoedspruit entered a team called "Women that Fish".

Liezl Schwartz, Marna Meintjes, Nita Scholtz and Hannah Meintjes made up the team and together they chartered a boat called Maverick (could Tom Cruise have had an influence?). Seventeen boats and two Jet ski's took part in the tournament.

The excitement of the start of the tournament was slightly dampened by bad weather on the first day the sea were very rough with very unstable conditions, and the fish did not play their part in making the day a fruitful one. The girls did catch a few fish but only Hannah and Nita's Natal Snoek could be weighed.

Day 2 saw the sea conditions was just as rough as the first day and sadly, de-

spite all the efforts and cajoling of the ocean, the team didn't weigh in any fish.

With a continuation of the bad weather, rough seas and no fish, team "Women that Fish" took 9th place overall a good effort under extreme conditions. But not being a team to shy away from a challenge, the effort put in saw the team take the prize for best dressed team at the 'Rock 'n Roll' theme night.

The competition was a great experience and a good time was had by all. The team wishes to thank all the generous sponsors (too many to mention, but you know who you are) who made this trip possible. The team did their level best to make sure that the Hoedspruit name was held high.

KISS band (above) from the left Hannah Meintjes, Liezl Schwartz, Marna Meintjes, Nita Scholtz

Hannah Meintjes (top right) and NIna Scholtz (right) with their catch of Natal snoek









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