Lion climbs for prey

Joy in a shoebox

Working with Gr R’s

Small beauties
An Authentic Bush Experience

The Klaserie Drift Safari Camps Group comprises of 2 camps which are ideally located to enjoy all the wildlife Africa has to offer, in a private and secluded setting; featuring the big five, incredibly diverse landscapes and comfortable accommodation with all modern amenities.

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The Klaserie Drift Safari Camps Group comprises of 2 camps which are ideally located to enjoy all the wildlife Africa has to offer, in a private and secluded setting; featuring the big five, incredibly diverse landscapes and comfortable accommodation with all modern amenities.

The intimate Camp provides a welcome mixture of African rondavel suites that can accommodate 10 guests, and a modern, clean farm style main building and entertainment area. A flagstone pathway leads guests to the awe-inspiring lookout deck, built above the Klaserie River, incorporating a second entertainment area with breath-taking views.

A dry river bed separates the Camp from a frequently used watering hole, which lies adjacent to the extensive entertainment area and commonly attracts jackals, hyenas, warthogs and elephants. Across the green lawn and under the large trees, the charming, large house provides ample accommodation for eight guests.

Reservations: 082 456 0673
talitha@klaseriedrift.co.za • www.klaseriedrift.co.za
Editor’s note

I can’t believe we’re speeding towards the end of the year again! It feels like just yesterday when we were saying goodbye for the holidays and here we are, 12 months later, tying up another year.

Time flies when you’re having fun, I guess. It’s been a busy year for the Eco Children team. We’ve forged ahead sowing our seeds of change and I believe we have come a long way in our aim in improving education in our area. I would like to take this opportunity to thank everyone who has supported us during the year and helped us achieve the successes we have.

To celebrate the end of the year, this edition of the Klaserie Chronicle is filled with wonderful, inspiring articles on all of our community and conservation projects during the past quarter. You will be seeing more of these in the future so you’re always up to date on what Eco Children is getting up to and how it’s making a difference. If you want more regular updates, remember you can follow us on Facebook (facebook.com/ecochildrenSA) and check in on our website (ecochildren.co.za) at any time to see what we’re busy with.

Working in our community and seeing the impact of our hard work is incredibly fulfilling and I would like to encourage you, our readers, to join us as we pay it forward and try to add value to others’ lives.

No matter how we contribute, it’s important to add value in an authentic way, with genuine interest and a caring heart. Our actions can be simpler: listen more than we talk, give our full attention, lend a helping hand, inspire someone to take action, love more, or be a shoulder to cry on. Simple actions can yield great results.

With that very mindful message in mind, I would like to wish you and your loved ones a joyful festive season filled with love and laughter. May this time bring splendour to your life, peace to your mind and joy to your heart.

Happy holidays!

CEO Eco Children

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Thank You

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Readers’ Queries

The Klaserie Chronicle is published quarterly and distributed to KPNR members, as well as Eco Children donors, partners and Chronicle advertisers. For any contributions or queries please email admin@ecochildren.co.za or contact Laura on 082 713 7550. We love to hear from you.

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Photographs

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Pangolins in crisis

Article by Harriet Nimmo & photos by Mike Kendrick

Pangolins are one of the most elusive and little-known African animals and at the top of the sightings wish list for many visitors to the Klaserie. Sadly, pangolins now have the dubious acclaim of being the world’s most illegally trafficked animal. They are poached for both traditional African medicines, known as muthi, as well as rapidly escalating demand by Asian markets for use in traditional medicine. Just like rhino horn, their scales are made of keratin – no different to human toenails.

South Africa is home to the little-known Temminck’s ground pangolin. Tragically more and more of these are now being confiscated by the South African Police Service (SAPS) and anti-poaching units, having been held illegally in captivity by poachers. To cope with the rising number of pangolins being seized in the Greater Kruger Area, Rhino Revolution, a local non-profit organisation based outside Hoedspruit, has formed an alliance with the African Pangolin Working Group to provide a rehabilitation service and centre for these rescued pangolins.

Rhino Revolution are now caring for pangolins seized from the illegal poaching trade by SAPS and Hemmersbach anti-poaching unit. The first pangolin arrived mid-September and eight more were brought in during the next six weeks!

The pangolins are arriving severely compromised – very stressed, badly malnourished and dehydrated. Rhino Revolution’s two full time RCVS registered veterinary nurses, Jade Aldridge and Natalie Rogers, are in constant contact with the African Pangolin Working Group’s network of experts. With the assistance and supervision of Provet, a specialist wildlife veterinarian practice led by Dr. Pete Rogers, the pangolins are anaesthetised on arrival, X-rayed to check for any internal injuries or broken bones, weighed, rehydrated on a drip and blood tests are undertaken to check glucose and protein levels.

The rescued pangolins require round the clock, 24/7 medical care and support. They are fed with a supplementary protein feed, via a feeding tube, to try and improve their nutrition. At night, if well enough, the pangolins are “walked” in the bush for them to find their own food supply of ants and termites, to encourage natural feeding behaviours and dietary intake as soon as possible. This can take many hours every night.

Rhino Revolution’s aim is to release the pangolins back into the wild as soon as possible – once they are healthy and weigh more than 5kgs. The first pangolins have already been released, each wearing a GPS & VHF tracker, so their progress and well-being can be monitored remotely. They are being released into secure reserves, in areas as near to where they were found as possible, and monitored remotely by researchers.

Rhino Revolution’s veterinary and husbandry costs are rapidly escalating. They are reaching crisis point, where they will have to turn pangolins away if they cannot raise sufficient funding. If you would like to help please visit www.rhinorevolution.org/donate or contact info@rhinorevolution.org.

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It was another joyous end of the year as Eco Children got to hand out a whopping 1,600 Santa Shoeboxes at crèches and schools around Acornhoek, Bushbuckridge and the Klaserie Private Nature Reserve.

Corné Havenga, CEO of Eco Children was overwhelmed by the generosity of everyone who donated. “We have had the privilege of collecting and distributing Santa Shoeboxes in the Hoedspruit and Acornhoek area for the past seven years and this year has been a highlight. Our donors, both local and from further afield, really came to the party to make sure that each child received a box of joy this festive season,” she said.

This year’s donations bring the total number of Santa Shoeboxes that Eco Children has handed out over the past seven years close to 10,000 and Havenga was quick to point out they couldn’t have done it on their own. “We are so grateful to the Santa Shoebox project for establishing this amazing initiative and helping us to share the joy with those who don’t have much and who so deserve a little joy in their lives. Then, of course, we have to acknowledge each and every person who pledged and donated a Santa Shoebox this year. This project is totally reliant on the goodness of each and every one of you and we thank you from the bottom of our hearts that you enable us to make this happen each year,” she continued.

Eco Children reached out far and wide to collect enough Santa Shoeboxes this year and received a big boost when a number of local lodges pledged 100 shoeboxes each during their Mandela Day celebrations in July of this year. Klaserie Drift Camps, Camp George and Sun Destinations each donated 100 boxes, and were supported by a massive donation of 200 boxes from Southern Cross Schools. More boxes came in from the 100% Foundation (50 boxes), the Simunye Group (54 boxes), and Huis Maroela (100 boxes). Rynfield Primary School in Benoni was the biggest donor, sending a whopping 300 boxes halfway across the country to Hoedspruit.

Havenga concluded: “We cannot thank everyone who donated enough for their support of this project and also every volunteer who helped us collect and label boxes on a sweltering Lowveld summer day. We absolutely cannot do this without you and we hope to see you again next year as we share the love during the festive season. We would also like to thank Santa Shoebox itself and the Kidz2Kidz Trust who make all of this possible. We love being a part of this and hope we can continue doing this for many years to come.”

Photos by Sabrina Chielens
Surveying critically endangered African White-backed Vultures

Article and photos by Kerri Wolter of VulPRO

African White-backed Vultures are declining at a rapid rate and if we are not careful, Africa’s most common species could be extinct within the next two decades. The once abundant vulture, now uplisted to critically endangered and listed as a CITES I appendix species, is fast becoming a reliable tool in highlighting poaching scenes. However, this comes at a price as poachers have recognised the tell-tale signs of a kettle of vultures thermalling above carcasses – whether they have been predated naturally by predators, succumbed to old age or disease, or where the animal has met its untimely death at the hands of human greed aptly known as poaching.

Given the vast movement patterns of White-backed Vultures and their historical breeding and foraging ranges covering Africa, there is little accurate data as to their real population size. Thus, VulPRO has chosen selected sites where the species can be studied, their population recorded, breeding biology observed and threats mitigated. Comparisons are then made from each site whereby we hope to come up with sound conservation strategies in the hope of trying to save the species before they are lost to our African skies.

The Olifants River Private Game Reserve, situated adjacent to the Klaserie Private Nature Reserve, is the largest region within the Balule Nature Reserve and is our flagship site. It is here African White-backed Vultures find refuge in a world surrounded by high poaching incidents. Surveys are undertaken during the vultures’ breeding season which starts from May and continues until the end of the year.

The first surveys highlight the number of breeding pairs followed by the second count which record the number of chicks produced, and lastly the third count to determine the success of the breeding season by recording the number of chicks successfully fledged. Surveys are undertaken by walking throughout the reserve, mostly along the river where it appears the species prefers to breed, with your neck often cocked upwards to concentrate on the birds and their breeding activities. This can often lead one into some interesting and precarious situations, given Olifants is a Big 5 game reserve. Nothing quite beats the African bush and walking alongside Africa’s majestic giraffe listening to vulture chicks begging for food, or watching thermalling vultures congregate at a thermal before-soaring off to their next updraft.

Our results over the past three years have shown a slight increase in the number of African White-backed Vulture nests in the reserve, but also how the species takes over Hooded Vulture nests which does not bode well for another critically endangered vulture species. We have started recording tree preferences and our results so far show the favoured tree species as follows:

1. Sycamore Fig Ficus sycomorus (58% of nests)
2. Jackalberry Diospyros mespiliformis (23%)
3. Knobthorn Afromia nigrescens (11%)
4. Matumi Brachodendron salicina (5%)
5. Leadwood Combretum imberbe (3%) There is also an overlap of the species of tree used by African White-backed vultures and Hooded vultures.

In addition to undertaking surveys, we undertake vulture captures but only outside of breeding season so as to avoid any stress and disturbance to the breeding birds. We strongly believe that the birds should not be unnecessarily disturbed during their breeding activities. Captures are undertaken with the use of capture nooses strategically placed around carcasses. Once one or more vultures are captured, they are processed, wings are tagged and, where possible, tracking devices are fitted to the birds for research purposes.

One such bird was processed just after fledging and has now been monitored for just short on 12 months. The tracking data gives one insight as to the movements of vultures and also into the difficulties of trying to protect a species that forages throughout the Southern African Development Community (SADC) regions. It also highlights what has already been published; that vultures in fact spend 80% more of their time outside of protected areas than what we had originally thought a few years back.

The work we are currently undertaking inside of the Olifants Reserve is vital to the monitoring and understanding of a resident population of breeding vultures; identifying threats and understanding what makes this site so successful in comparison to other sites experiencing many losses and poor breeding success is pertinent to having the perfect recipe in the hopes of saving Africa’s vultures. As such this project will continue into the foreseeable future and we hope to tag as many of the breeding adults as possible in which we can understand and identify site fidelity and track both breeding adults and offspring for further insight into their movements and ecology.

We are therefore appealing to all our readers, colleagues, friends, family and more to please report any wing tags to us. We are starting to get some great feedback from landowners in the area but are hoping to spread the word wider and incorporate a wider community of landowners, farmers, reserve managers, tourists etc to be on the lookout for vultures and tagged vultures. In addition, we are looking for possible Masters and PhD students who would be keen to assist us with the analysis of our vulture tree nesting data as well as appealing to the local community for assistance with accommodation for our pending student in which he/she can visit the sites, undertake further research and grow this work.

Also, we are keen to do further research in adjacent reserves to Olifants so if you are keen and would like to get involved or would like us to come and assist you, please do not hesitate to contact us. We have already trained and are now working with landowners from Khaya Ntluko, one of the eco estates in Hoedspruit who has vultures breeding and feeding on the estate.

Visit the VulPRO website at vulpro.com for more information on their work or contact Kerri for further information at kerri.wolter@gmail.com.
A few years ago, Eco Children was introduced to the Simunye Project when they visited the organisation with volunteers from Huntingtower School in Melbourne, Australia. This year, the school returned with more volunteers set on making an even bigger impact than their predecessors.

The volunteers were only in the area for a few days but made a massive impact during the time they spent here thanks to their boundless enthusiasm and energy as well as all the hard work they had put in before the visit to raise funds for essential needs in the area identified by Eco Children.

The volunteers were tasked with expanding the Eco Village at Mphaku Primary School, a school adopted by Eco Children that keeps growing and cannot produce enough vegetables to supplement their feeding scheme for all learners. In just two days, these volunteers built another 10 keyhole gardens to help with the need for fresh produce at the school, planted numerous big trees to green the area and donated a number of beautiful books to the school’s library.

They also packed 54 Santa Shoeboxes for our annual Santa Shoebox drive in the area, and sponsored a playground at the school with funds raised before their visit.

Corne Havenga, CEO of Eco Children, was mightily impressed by these volunteers’ can-do attitude and positive energy. “We have worked with many volunteers and this counts as one of the most positive experiences we’ve ever had. Everyone was willing to get their hands dirty and it seemed like they truly enjoyed the hard work and spending time with the children at the school. We would like to thank everyone who travelled all this way and sowed a seed of change in the lives of learners at Mphaku Primary, and also to those who donated and helped make this trip happen,” she said.

As the school year comes to an end, Eco Children and Makwetse Primary School can celebrate the completion of a brand-new classroom at the school.

Makwetse is one of the biggest schools adopted by Eco Children and houses a total of 752 learners. There is a chronic shortage of space at the school and some classrooms house up to 90 learners at a time.

When the school heard they were to be the recipient of a brand-new computer lab from the Department of Education they were overjoyed but this meant the school would lose another classroom to house the computers. This caused an unbearable lack of space and Eco Children stepped in to help build a new classroom at the school where basic education could continue.

Construction started in the third quarter of 2018 and has progressed swiftly. Corne Havenga, CEO of Eco Children, said learners and teachers can look forward to more space in the new school year. “We know this extra space will have a positive impact on the quality of education learners at the school receive and look forward to seeing the final product in 2019,” she said.

Photos by Sabrina Chielens
Dr Barnes once again added class visits to the programme, and she was able to observe and assist teachers within the context of their classroom. She was able to observe their teaching methods and demonstrate hers. These visits have proved invaluable as Dr Barnes had a real opportunity to identify problems in teaching methods and could address them in real-time.

One of the greatest problems identified is that teachers convey math as a series of rules to memorise, as opposed to developing and teaching a true understanding of the subject. Said Corné Havenga, CEO of Eco Children: “We believe that by empowering teachers to understand the subject they're teaching methods improve and this enables them to transfer knowledge to their learners. This has a positive effect on their learners' understanding of math. We focus on building a true understanding of the subject amongst teachers and learners, as opposed to simply memorising rules.”

Dr Barnes agrees and sees the potential, especially in the long term, of this project. She is also energised by the progress she has seen over the past couple of years, since the project kicked off: “I continue to learn something new from these teachers each workshop and mentor visit. They help so much to shape the culture of our workshops in their honest and open approach. I am convinced we need to just keep working on improving the teachers’ understanding of mathematics, in order to free them up from rules and grow their feeling and understanding of math before we will start to see major changes in their practice.”

In October, Eco Children presented its annual maths camp, hosting the top 15 educators that had dedicated a lot of time and energy to the Eco Children maths capacity building workshops during the year.

The camp was presented at the Southern African Wildlife College where Dr Hannah Barnes from BushMaths presented more workshops and all attendees got to go on three game drives. The topic covered during the weekend was fractions and the teachers who attended completed approximately 12 hours of mathematics, the equivalent of six workshops. Dr Barnes says there was a bit of fun mingled in between the hard work and this made for a much different experience than the weekly workshops. “The teachers just seem to engage on a much deeper level, perhaps due to the time available or perhaps due to the context being out of their usual routine and venues, or a combination of both,” she said.

Research has shown that South African learners are not on par with the rest of the world when it comes to math skills. Eco Children started doing capacity building workshops for math educators in 2015 to address this issue and this year, a total of 14 workshops took place at schools in the area. Eight of these workshops were for intermediate phase teachers and six for the foundation phase.
Two gorgeous little guys

Article by Peter Lawson

The two smallest kingfishers in southern Africa are brightly coloured and they both live in the Klaserie Private Nature Reserve (KPNR). They are the Malachite Kingfisher *Corythornis cristata* and the African Pygmy Kingfisher *Ispidina picta*.

These two kingfishers are vastly different in habit but very similar in appearance and this confuses many people when they see them. To tell them apart take note of the following:

The African Pygmy Kingfisher is well named as it is the smallest of the two. Its total length from tip of a long beak to end of tail is only 13 cm and it weighs a mere 15 grams. It has a bright blue back, wings and tail and a blue crown. The beak and legs are red in adult birds and black when juvenile. The underside is orange, which contrasts beautifully with the blue back. It also has a broad orange eyebrow and a pinkish-violet patch behind the eye.

The Malachite Kingfisher is ever so slightly bigger, measuring 14 cm in length and weighing in at 17 grams. It also has a bright blue back, wings and tail, red beak and legs when adult. The underside is orange like its cousin but it has some white on the belly. The main difference between the two look-alikes is in the head and face. This one has a blue-green crown and eyebrow and no purple wash behind the eye.

So much for the appearance of the two gorgeous little guys, but there is a lot else besides. African Pygmy Kingfishers are migrants from central Africa and you will only find it in the KPNR during the summer. On a sad note, many birds are killed on migration by flying at speed into windows. They fly low, see vegetation reflected in the glass and collide with the window.

Although this species is migratory it does breed in our area. The nest is a tunnel dug into a low gravel bank away from water, and often in aardvark burrows. Both mom and dad take turns incubating the pure white little eggs and both are good parents when it comes to feeding their offspring. Another big difference between the two species is that African Pygmy Kingfisher is not a true kingfisher as its diet consists mainly of insects and is generally found away from water amongst dense vegetation, but in drier areas than the Malachite Kingfisher.

By contrast, Malachite Kingfisher is a true kingfisher. You will find it near water, usually perched still on reeds or low overhanging vegetation, waiting for small fish or tadpoles to come swimming by. It will then dive into the water to catch its dinner. This species is not migratory and is present all year round in the KPNR. It too breeds in a tunnel made in a low bank, but generally on the edge of a dam or stream. Similar to the African Pygmy, the Malachite parents also take turns incubating pure white eggs and look after their offspring well.

These two similar looking kingfishers are well worth adding to your list, so make sure you look for them when out and about in the KPNR. They are both lovely to see and would not be happy if they knew you were ignoring them due to their small size.

"These two similar looking kingfishers are well worth adding to your list"
You might wonder what Project Painted Lady is. It is not a beauty contest or a competition for make-up artists, nor an actual painting of a lady. A Painted Lady, or Sondagsrokkie as it is known in Afrikaans, is in fact, a butterfly. Vanessa cardui belongs to the Nymphalidae family of butterflies and is a common and colourful butterfly that occurs on every continent except Antarctica and South America. And yet, despite being so common, the Painted Lady is only recorded in about one-third of all quarter degree grid cells for South Africa in the LepiMAP database when it ought to be observed almost everywhere.

That’s why we need your help. If you have seen this butterfly, or any other butterfly or moth, then please photograph it and submit your photos to LepiMAP.

LepiMAP is a joint project of the Animal Demography Unit (ADU) and the Lepidopterists’ Society of Africa. It is the African butterfly and moth mapping project and is a continuation of the Southern African Butterfly Conservation Assessment (SABCA). It aims to determine the distribution and conservation priorities of butterflies and moths on the African continent. LepiMAP is a fun and easy way to do your bit for biodiversity conservation. Anybody, anywhere in Africa can contribute to this awesome citizen science project.

By submitting your photos to LepiMAP, you are helping to map the 21st century distribution of this beautiful butterfly. You are saying: “I am an Ambassador for Biodiversity” by making your photos count for conservation.

In order to contribute to LepiMAP or any of the other Virtual Museum projects you need to follow these easy steps:

Step 1: Register as an ADU observer at adu.org.za/register.

Step 2: Once you are registered, log into the Virtual Museums website at vmus.adu.org.za by clicking on the LOGIN tab on the left-hand side of the screen.

Step 3: On the left-hand side of your screen click on Data Upload. This will bring up a two-page form: the first page collects the information, and the second page uploads the photos.

Step 4: Fill in the form. All areas marked with * are required fields. If you do not have the GPS coordinates you can use the Google Map provided and pinpoint the area where you took the photo. After completing the form click on “Save” at the bottom to save this information.

Step 5: Select the project to which you want to submit your photo. Upload your photos and click on Submit at the bottom of the form.

After your photo(s) have finished uploading to the database, you will receive a confirmation of the submission. You can load up to three photos per record. Once the record is submitted, confirmation of its arrival is provided by the appearance of a thumbnail version of your photo, and the basic details of your record.

The ADU is also home to many other citizen science projects. There are projects for mammals, dragonflies, weaver bird nests, reptiles, frogs, scorpions and even spiders. So when you are out there, LepiMAPping away, please do not forget to keep an eye out for all the other amazing critters out there. And next time you want to squash that spider with your shoe… stop! Take a photo instead and submit it to the ADU’s SpiderMAP.
**The road to trails guiding**

**Part 4: The Trails Guide’s Brief**

It is standard procedure for a trails guide to deliver a pre-trail brief to all participants prior to departing on a guided walk. The pre-trail brief serves to inform all trailists of the rules to be adhered to while moving through a natural environment where potentially dangerous animals are present. The brief will include a list of ‘golden commands’ to be followed in the case of a sudden confrontational encounter with one of these potentially dangerous animals. Amongst others the commands will include: always stay behind the rifles, stay in a group, and do not run.

Equally important as the pre-trail brief is the trails guide’s brief. This discussion between the lead and back-up trails guide will include standard procedures or ‘golden commands’ when confronted with a dangerous situation. With numerous trails guide training providers, mentors, and assessors in an industry that historically has had a high guide turnover, George B. Shaw summed up the current status of the critical trails guide’s brief when he said: “The single biggest problem in communication is the illusion that it has taken place.”

It is recommended that two trails guides (each with a rifle) accompany the walk. The lead trails guide and back-up trails guide walk in front of the group as they move across the terrain in single file. The purpose of the lead trails guide is to facilitate the walking experience, which may include viewing potentially dangerous animals. The role of the back-up trails guide is to provide an extra set of eyes and ears, group control and support of the lead trails guide with a second firearm during a sudden and potentially dangerous encounter. It is important that the back-up trails guide follows the lead of the lead. In other words, the back-up trails guide will chamber a round (prepare the rifle to fire), and wait for further commands once the lead trails guide has done so and he/she is in a safe position (not behind the lead trails guide).

It is encouraged that the following three command system is incorporated by trails guides and discussed during their trails guide’s brief as it does not allow any room for confusion. The commands will be provided by the lead trails guide only. They are as follows:

**Warning**

This command may be delivered in two ways. First, a shot fired by the lead trails guide. This will always be a kill shot (going for brain). The back-up trails guide should follow up by shooting at the animal’s brain as soon as the shot from the lead trails guide is heard. The second and alternative command to the shot fired from the lead trails guide will be a verbal command “kill”. This may be necessary if the lead trails guide is experiencing a rifle malfunction or is not in a position to place a shot. Once the verbal command has been delivered, the back-up trails guide takes over the responsibility of the situation until the animal is neutralised.

**Hold**

Confirmation that the lead trails guide has decided not to take any further action at this point in time. This is valuable to the back-up trails guide as it eliminates any doubt as to what action he/she should be taking in what is usually a sudden and unexpected situation. This command is generally used while an animal is approaching out of curiosity, with intent to confront or is already busy with a warning charge.

**Kill**

The lead trails guide should not deliver the warning shot. Should the warning shot be ineffective the lead trails guide would have wasted valuable time (space) and increase the likelihood of a malfunction (jam) while trying to reload a second round. Therefore, the warning shot should be taken by the back-up trails guide upon the command given by the lead trails guide. The shot should be placed off to the side of the animal and into the ground three quarters the distance to the animal. The warning shot should not only provide the loud audio disturbance, but an additional visual disturbance (puff of dust) as the bullet hits the ground. The warning shot placement is ultimately dependent on terrain. Warning shots have been effective in some cases, but is often not enough to deter the animal from a determined confrontation or charge. Should the warning shot be ineffective, the lead will be ready to provide the next command.

**Hold**

It is important that the lead trails guide conduct their duties in what can be considered as a very forgiving environment. The last thing any trails guide would like to do is to kill an animal to protect the participants from serious injury or death, but the more time they spend out on trail, the more likely it will become that they will require the implementation of the ‘three-command’ system.

**Kill**

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**The road to trails guiding**

**Part 4: The Trails Guide’s Brief**

It is standard procedure for a trails guide to deliver a pre-trail brief to all participants prior to departing on a guided walk. The pre-trail brief serves to inform all trailists of the rules to be adhered to while moving through a natural environment where potentially dangerous animals are present. The brief will include a list of ‘golden commands’ to be followed in the case of a sudden confrontational encounter with one of these potentially dangerous animals. Amongst others the commands will include: always stay behind the rifles, stay in a group, and do not run.

Equally important as the pre-trail brief is the trails guide’s brief. This discussion between the lead and back-up trails guide will include standard procedures or ‘golden commands’ when confronted with a dangerous situation. With numerous trails guide training providers, mentors, and assessors in an industry that historically has had a high guide turnover, George B. Shaw summed up the current status of the critical trails guide’s brief when he said: “The single biggest problem in communication is the illusion that it has taken place.”

It is recommended that two trails guides (each with a rifle) accompany the walk. The lead trails guide and back-up trails guide walk in front of the group as they move across the terrain in single file. The purpose of the lead trails guide is to facilitate the walking experience, which may include viewing potentially dangerous animals. The role of the back-up trails guide is to provide an extra set of eyes and ears, group control and support of the lead trails guide with a second firearm during a sudden and potentially dangerous encounter. It is important that the back-up trails guide follows the lead of the lead. In other words, the back-up trails guide will chamber a round (prepare the rifle to fire), and wait for further commands once the lead trails guide has done so and he/she is in a safe position (not behind the lead trails guide).

It is encouraged that the following three command system is incorporated by trails guides and discussed during their trails guide’s brief as it does not allow any room for confusion. The commands will be provided by the lead trails guide only. They are as follows:

**Warning**

This command may be delivered in two ways. First, a shot fired by the lead trails guide. This will always be a kill shot (going for brain). The back-up trails guide should follow up by shooting at the animal’s brain as soon as the shot from the lead trails guide is heard. The second and alternative command to the shot fired from the lead trails guide will be a verbal command “kill”. This may be necessary if the lead trails guide is experiencing a rifle malfunction or is not in a position to place a shot. Once the verbal command has been delivered, the back-up trails guide takes over the responsibility of the situation until the animal is neutralised.

**Hold**

Confirmation that the lead trails guide has decided not to take any further action at this point in time. This is valuable to the back-up trails guide as it eliminates any doubt as to what action he/she should be taking in what is usually a sudden and unexpected situation. This command is generally used while an animal is approaching out of curiosity, with intent to confront or is already busy with a warning charge.

**Kill**

The lead trails guide should not deliver the warning shot. Should the warning shot be ineffective the lead trails guide would have wasted valuable time (space) and increase the likelihood of a malfunction (jam) while trying to reload a second round. Therefore, the warning shot should be taken by the back-up trails guide upon the command given by the lead trails guide. The shot should be placed off to the side of the animal and into the ground three quarters the distance to the animal. The warning shot should not only provide the loud audio disturbance, but an additional visual disturbance (puff of dust) as the bullet hits the ground. The warning shot placement is ultimately dependent on terrain. Warning shots have been effective in some cases, but is often not enough to deter the animal from a determined confrontation or charge. Should the warning shot be ineffective, the lead will be ready to provide the next command.

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**The road to trails guiding**

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Earlier this year, Eco Children initiated monthly capacity building workshops to help grade R teachers in the area improve their teaching skills.

The early childhood development phase is of utmost importance in a child’s development and forms the foundation of a child’s future. This is the phase in which children learn and pick up knowledge faster and it needs to be utilised to its fullest to ensure children have the best foundation possible.

The grade R workshops are facilitated by Eco Children volunteer, Sabrina Chielens. She has taken the challenge on board to empower grade R teachers improve their teaching methods. The workshops have a big focus on making learning fun for these young learners. It is important that learning in this phase be disguised as games in order to keep learners engaged.

Sabrina explains that the Eco Children team noticed that teachers in the foundation phase are often not qualified for their role and also not aware of their big role in the development of the children they work with every day. Furthermore, the parents were also not aware of their role as parent during this phase. “This manifestation leaves a huge gap in the foundation of a child. A gap that they will carry with them their whole lives, and go from generation to generation, unless we break that circle and give them the support they need,” she says.

She continues and says children in the foundation phase of education need a united front of teaching from both teachers and parents. “We need to acknowledge that early childhood development is a united effort. Parents and family are the first and main provider to form a good foundation. After that, caregivers at the creche and teachers at the school start to play an important role in a child’s life. This doesn’t mean the task of parents and family is done, they still have to be actively involved and enhance the development of their children. Both parties need to communicate and share progress, concerns or problems.”

Eco Children is looking for a sponsor for the monthly grade R workshops. This is a wonderful opportunity for businesses to make a difference. If you are interested in getting involved in this project, contact Eco Children on corne@ecochildren.co.za.

Photos by Sabrina Chielens
The Associated Private Nature Reserve (APNR) Ground Hornbill Project has seen a plenitude of researchers and conservationists contribute to its development over the last 18 years. People often remark about how good it must be to work in the field, understanding that our time is spent outdoors and away from a desk. Of course, we agree: we love what we do. However, our lives dedicated to studying and conserving endangered birds is not without its drawbacks. For every triumph, there's a challenge, and there are the aspects of the job that people might find surprising!

What we appreciate most is simply being able to spend all day in nature. During our most recent research, we have been looking into Ground Hornbill vocalisations and how individuals and groups are able to recognise each other. We need to be out in the bush long before sunrise and wait for the birds to call, as this is the only way we can locate them. It means sitting quietly in the darkness and listening to nocturnal life subside and give way to the dawn chorus, while watching the first segment of sun emerge.

Indeed, waking up at 2am every day for a few months can be difficult (especially for someone who is not a morning person, like myself) but these are by far the best hours to be out in nature. By the time the Spurfowls start to chime and the stars disappear in the sunrise, we've forgotten all about our early morning wake up call.

Another big advantage of the work we do is contributing to the conservation of the species. Over the last two years, we have installed six nests throughout the APNR and of those, four were occupied within the first two weeks. We know that over 100 Ground Hornbill chicks were born in artificial nests over the years, which is deeply encouraging. In addition, we have managed to harvest over 50 second-hatched chicks, which would otherwise have been doomed in their nests. These chicks were given a second chance and now, many are adult birds located all over the country, adding to the population of this declining species.

The downfall of this activity one might not realise or appreciate, is that we spend hours in the car, covering long distances through the nature reserves during the hottest months of the year. The nests are located far away from one another, and when the Lowveld heat starts to creep in very soon after sunrise, we know we've got a long day ahead of us in what feels like an oven.

Luckily, awareness of our little-known project is growing, and more and more people are showing interest in the cause. We are receiving frequent contact from people who call to report sightings of Ground Hornbills or just to ask about what it is we are doing. Curiosity is key and it helps us to share information about these unusual birds and our environment. We love meeting people on the job and always enjoy talking about what we do to interested parties both within and outside the conservation sector.

Lastly, from a research perspective, one of the most exciting aspects of the job is investigating the unknown in order to better understand the species. Our current research is focused on the birds’ group dynamics, specifically looking at the role individual birds within different groups play to contribute to the vital group functions: territory defence and reproduction. We are very pleased to be making steady progress on this, gaining a deeper understanding of Ground Hornbills and ultimately extending our ability to effectively conserve the species.

Needless to say, we have birds on the brain! Our research requires long hours and very demanding seasonal field work, but what many might consider a downfall, we have learned to truly appreciate. Frankly, we embrace our bird brains and hope to continue putting all of our energy into learning, developing, and conserving these big, black birds: The Southern Ground Hornbills.
Leopard or Lion?

Article by Bina Kana & photos by Pradeep Kana

Our family have been blessed to visit the Klaserie Private Nature Reserve (KPNR) for a number of years but none can compare to the one when my husband and I stayed at the amazing Baobab Ridge Game Lodge in June this year. This is due to the rare sightings we witnessed. One of these sightings makes for the kind of story which, when someone is relating their safari experience, would definitely prompt me to say: “That’s nothing, let me tell you of this one time when we were at the KPNR.”

The kill

A leopard had killed an impala ram and hoisted it up a tree towards the end of a branch. This was easy to spot as the tree was close to the tar road and devoid of any foliage. After we spotted the carcass, we visited the spot on every game drive in the hope of spotting the leopard. One fine evening, as dusk fell, we were rewarded with the sighting of the female leopard sleeping next to the carcass up on the tree. This made for wonderful pictures but this is not the climax of this story.

Early the next morning with all of us bundled up in the game vehicle against the cold, crisp winter air, we once again made our way to the same area in the hope of spotting the leopard once again. As we approached the tree, lo and behold, we were greeted by four lions, two males and two females. They were pacing around the tree looking up at the carcass from time to time. They sure looked hungry!

In our full view, one of the male lions made his way slowly to the tree and contemplated climbing it by lunging itself against the tree with its two front paws. We all held our breath waiting for his next move but it was all in vain as he calculated the risks and gave up before trying.

Now it was time for the battle of the sexes. One of the lionesses made her way to the tree trunk with her two front paws. The next few seconds was like a slow, silent movie. You could hear a pin drop in all the game vehicles and each of us was silently willing her to continue going up but we knew she would not make it 2 meters straight up before the first fork in the tree. Even if she got there, she still had to navigate all the way across one of the branches, where the carcass rested.

She proved us all wrong and made her way up the tree trunk, towards the fork of the tree. Can you imagine the graceful, commanding lioness on the ground, now looking completely awkward as she fumbled in the fork of the tree, positioning herself to walk across the branch to the carcass? Each one of us waited with bated breath, urging her forward but at the same time worrying for her safety. She gingerly made her way across the branch, with all of us cheering on silently, and reached her goal.

She tried to tear the meat off the carcass, but nearly lost her footing as she wobbled dangerously for a few seconds. She decided the meat on the carcass was not worth her life and made her way clumsily back down.

Safely down

Phew! Each one of us let out our breath as she made it safely to the ground, albeit without the impala, and applauded her bravery. This will be ingrained in my memory and surely on all who witnessed it. What a privilege to witness this event.

Thank you, David

We were not aware that we were driving with a legend until we passed a game vehicle from another lodge. As we stopped to greet the guests and guide, this guide remarked: “Do you know you are riding with a legend?” He went on to elaborate, as we all looked totally confused, wondering who this legend was. He said our guide, David Mathonsi, was one of the rarest gems of the KPNR and has earned the nickname of the leopard whisperer.

Then it all made sense, as I recalled the number of times on our previous visits, when we had been on a game drive, shortly into each game drive the radio would crackle alive with: “Gena Mathonsi, gena”. Everyone wanted to know what David had spotted in the bush for them this time. Thanks goes to David and to the entire Baobab Ridge Game Lodge team for making our stay unforgettable.

You can see a video of the sighting on the Baobab Ridge Game Lodge Facebook page at facebook.com/baobabridge.
As an extension of Eco Children’s grade R capacity building project, the organisation has partnered with local lodge, Kapama Private Game Reserve to host fun workshops for grade R learners at Makwete Primary School twice a week.

The lodge’s community development manager, Carmen Hallet is at the head of the programme at the lodge and travels with guests to the school twice weekly to present these fun workshops to learners younger than 7 years old. During the workshops, there is a focus on learning through playing and on developing learners’ fine and gross motor skills.

Eco Children and Kapama joined forces to launch these workshops as a need was identified in the area to improve early childhood education. Eco Children CEO, Corné Havenga explains that this is such an important part of a child’s education it cannot be overlooked: “We believe in the importance of early childhood development and have committed to improving this at the schools we are involved with in order to give learners at the schools the best chance of success in their futures.”

Guests at Kapama have the opportunity to travel to Makwete during their stay at the lodge. During these visits they take a tour of the school’s Eco Village and library and get to be a part of the workshops. Carmen says the feedback from guests have been very positive and they have seen an improvement in the development of children they work with every week. “Over the past year, with a lot of love, patience and well thought-out activities, we have seen an immense improvement in numerous children’s overall development and self-confidence. I firmly believe that a child’s mind is not built to sit and be taught, but rather to explore, play and learn, and that this will contribute greatly to their further development and education,” says Carmen.

Kapama and Eco Children partner for grade R’s

Photos by Sabrina Chielens
Local Hoedspruit pilot, Jaco Scheepers recently volunteered to fly two sub-adult lionesses from Gondwana Game Reserve in the Western Cape to Nambiti Game Reserve in Kwazulu-Natal for The Bateleurs. The translocation was requested by Dr. Joel Alves from WildlifeVets in order to increase genetic diversity on Nambiti Game Reserve.

Jaco transported the lionesses using Martin den Dunnen’s aircraft, a Cessna 206. As a result of a cold front in the Western Cape, the flight was delayed and rescheduled a number of times. Weather permitting, Jaco and Joel were to fly out of Hoedspruit on Tuesday, 28 August. This was essential as the permits were expiring on the following Friday.

The flight down to Mossel Bay took seven hours with a stop for fuel in Bloemfontein and an overnight stop at Gondwana Game Reserve. The lionesses were darted first thing in the morning and driven on the back of a bakkie to the airstrip in Mossel Bay. An hour and a half later they were in the air and on their way for the long haul to Nambiti - a flight that lasted five and a half hours.

The grass strip on Nambiti was not ideal and challenging to land on but with Jaco flying they landed safely. Both lionesses were offloaded and driven to their habituation boma. They were fitted with collars and microchipped before the immobilisation was reversed. The total down time for the lionesses was nine hours on the dot. Jaco and Joel spent the night at Nambiti and made the two-hour flight back to Hoedspruit on the Thursday morning.

It was an unbelievable effort from Jaco and everyone involved. It was a massive undertaking as the long trip covered seven provinces with a diverse shift in landscape and weather conditions throughout. It would not have been logistically possible to carry out this translocation without the help of The Bateleurs, Jaco Scheepers and Martin den Dunnen. The lionesses were released from their boma after four weeks and will hopefully establish themselves and serve to improve the genetic diversity in the lion population on Nambiti.

For more information on The Bateleurs, contact Zelda de Keijzer at info@bateleurs.org.
The Kit-a-Kid project has been a roaring success this year, with donations heading towards Eco Children’s target of handing over 700 school uniforms before the end of the year.

CEO of Eco Children, Corné Havenga, was excited to confirm that more than half of the required donations have been received and hundreds of children had already received their new school uniforms as they look forward to the new school year.

The Kit-a-Kid programme is one of Eco Children’s most successful initiatives ever, having kitted out more than 3,600 learners with school uniforms since its inception in 2009. This year, Eco Children is aiming for its biggest year yet, hoping to kit out 700 children with a new school uniform.

“I am still amazed how a child’s attitude changes the moment they receive their very own, new school uniform,” said Havenga. She continued: “For many of these children, this is the first time they own a new set of clothes and not a hand-me-down. The amount of pride they take from this simple thing is incredible and we can see the effects of this in the quality of the work they produce.”

A big part of this year’s success was the donation received from German couple, Tobias and Nicole Grabmeier, who decided to raise money as part of their honeymoon trip to South Africa. They visited Eco Children during their honeymoon and donated R21,700 to the cause. Havenga was full of praise and thanks to this generous couple: “What a way to celebrate your honeymoon, thank you Tobias and Nicole! This is a simple, easy and affordable way to have a real impact on a child’s life and we would like to encourage everyone to get involved and donate to this worthy cause, no matter what the occasion.”

If you would like to donate, you can do so on Eco Children’s profile on Givengain at givengain.com/ecochildren or contact corne@ecochildren.co.za. Each R300 donated gives a child a full uniform consisting of shoes, a shirt, shorts or a skirt, and a jersey.
In winter this year, 16 members of the Bushveld Bird Club met at the Klaserie Dam for the first ever Co-ordinated Waterbird Count (CWAC) on the dam.

A CWAC forms part of the citizen scientist projects that are undertaken by volunteers and members of bird clubs throughout South Africa. The information which is recorded and documented during the count is sent to the Animal Demographic Unit (ADU) of the University of Cape Town. They use this data to map South Africa’s biodiversity over time and provide much needed data for waterbird conservation.

CWAC counts are undertaken and submitted twice a year in mid-summer and mid-winter and take place on South African wetlands which includes natural pans, vleis, marshes, lakes, rivers and even man-made structures such as reservoirs, which can support significant numbers of birds.

The ADU provide the necessary list of birds that are to be included in the count. Records are kept by the ADU and notes are made by those undertaking the count of what birds are breeding. The information is used for many reasons, to name a few:

- Monitoring the numbers of birds
- Identifying the species at the location
- Understanding how waterbirds use wetlands
- Serving as an early warning system for wetland degradation

The Bushveld Bird Club arranged four teams. Three teams walked on the western shoreline of the Klaserie Dam and one team used a small boat, kindly provided by Carl van den Berg from Ndabushi Bushveld Retreat, to count the inaccessible areas on the eastern shoreline. 25 different species on the CWAC list were recorded, with Reed Cormorants being the most prevalent species, followed by Blacksmith Lapwings and African Jacana.

The teams are looking forward to the summer count which will take place in late January as it will be interesting to see which migrating water birds will be at the dam and how many species will be breeding.

Thank you to Hannes Potgieter who granted permission for the club to do the count on the Klaserie Dam and Louwtjie Roux who gave the club access to the dam at the Klaserie Caravan Park for the extended count and for the members to have their refreshments after the count.

Other CWAC’s in the area include the Swadini Dam which is undertaken by the Mpumalanga Parks Board. Further information on this important project can be found on the ADU CWAC website at cwac.adu.org.za.
Bushveld Moments

“In order to see birds it is necessary to become a part of the silence.”
~ Robert Lynd

Photo by Warren Howson, KPNR Ivory Wilderness, Canon EOS 5D Mark II; 600 lens, 1/5000 @ f/ 9

Lappet-faced Vulture

Crested Barbet

Malachite Kingfisher

Photo by Samuel Cox, KPNR, Canon EOS 7D Mark II; 400 lens, 1/800 @ f/ 5.6

Photo by Chris Kotze, Canon EOS-1D Mark IV; 600 lens, 1/800 @ f/ 6.3
Tons and tons of pride

Photos by Sabrina Chielen

2018 will go down as one of the top years in the history of Eco Children bursary learners. These are the words of Corne Havenga, CEO of Eco Children after the awards evening at Southern Cross School (SCS) earlier this quarter where the Eco Children bursary learners shone like the bright stars they are.

In 2018, Eco Children, the Make a Difference Leadership Foundation (MAD), and SCS supported eight learners at the school. These learners all came from adopted schools where Eco Children operates or were identified during holiday workshops hosted each school holiday by Eco Children. This year, these learners really came into their own as they received award upon award, recognising their potential, talent and character.

Mersin Ngobeni, the only grade 12 learner on the programme this year, received the Leadership Award as well as the Earth Ethics Environmental Award at the SCS prize giving. This award goes to a grade 12 learner who shows a passion and commitment to living a sustainable life, something he shows a genuine interest in.

Said Havenga: “This young man has held various leadership positions: He was head of his boarding house, house captain and Crux leader. His integrity and commitment to his position, makes him stand out above others and knowing the things he has had to overcome to get to make it this far make me incredibly proud to know him.”

Nhlanla Tivane and Katlego Mamiane were placed respectively first and second in their academic year (grade 11) and were both appointed as Crux leaders and boarding house leaders in 2019. Lala was also selected as Head of School and House Captain (and received the “Fire in the belly” award), while Katlego was appointed as head of the girls’ boarding house. “I am so immensely proud of these two ladies. Everything they do, they do with passion and always with a smile,” said Havenga.

Havenga concluded: “We cannot put in words how proud we are of these learners, as well as all our other bursary learners who performed well this year. Their drive and commitment to success and how they do not let dire circumstances keep them from reaching their full potential is inspiring. We cannot wait to see what the future holds for all of them and we look forward to welcoming our newcomers onto the programme and helping them reach similar heights.

“We are so grateful to MAD and SCS for helping us empower these talented youngsters and giving them the opportunities they deserve!”

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One Enviro Loo can save up to 420 000 litres of water annually!
Fear Factor
Article & photos by Dr Michael Clinchy and Dr Liana Zanette

Our word for the Klaserie Private Nature Reserve (KPNR) is “unbelievable.” Unbelievably gorgeous. Unbelievably kind and helpful people with extraordinary passion for conservation. It is unbelievable that two kids who grew up in the frigid temperatures of Canada would have the privilege of working here. And what do we work on? Though it may, at first, seem a bit incongruous with the beauty that we see in nature, we work on fear. Fear is a part of nature. We all see it every day at the Klaserie, and we all certainly experience it on occasion as well! From the beauty that we see in nature, we work on fear. Fear is a privilege of working here. And what do we work on? Conservation. It is unbelievable that two kids who grew up in Canada would have the privilege of working on something they are interested in because our previous research has given us reason to suspect that animals will be afraid of us. Setting up our ABR to get high quality responses has certainly been a learning experience for us. In the first year, we learned that dams were the places to go to get wildlife on camera, especially in the dry season, so that is where we now deploy our systems. Never having worked in South Africa before (our only experience in Africa had been in Uganda), we were incredibly naive to a few key features that can make research a bit difficult out here: trees like knobthorns with impossible barbs on them, large carnivores that seem to like to eat our equipment, and the elephants that enjoy smashing it all to smithereens. We are now super prepared for all such contingencies and this past year, we did not lose a single system to leopard, hyena, or elephant. And, once in place, all we need to do is download the data stored in the camera’s memory card every 10 days.

None of this work would have been possible without the support of KPNR warden, Colin Rowles, and the gracious landholders in the Klaserie. We are also very appreciative that Colin, despite the fact that he has zero time to spare, is always happy to stop for a chat. We have learned a lot from him about real-life conservation and management issues that we bring to our lectures back home in Canada. We would also like to thank Thornybush warden Tom Coetsee and section manager Hannes Zowitsky for their time and support in this research. Their kids, Molly, Preston, Nina, Lisa and Simone have been terrific contributors and it is a real joy to see how excited these kids are by the animals and landscape that surround them.

Dr Michael Clinchy and I (Dr. Liana Zanette) are wildlife biologists from Western University in Canada. For the last 18 years or so, we have been researching all manner of wildlife, from birds to lions, in many different places in the world, to better understand the nature of fear. We have learned a lot over the years. The common theme emerging is that fear has its uses in keeping the environment healthy. Fear can help keep prey numbers in check. We have discovered that by being vigilant, scared prey get eaten less often, but avoiding predators means that prey themselves eat less. The consequences are a 50 percent reduction in the number of offspring they can produce per year. That’s half as many kids, just because of fear.

Fear of predators also has important knock-on effects that reverberate down the food chain beyond the prey themselves. In another study we discovered that the fear of large carnivores reduces how much food their prey eats, which in turn increases the abundance of the prey’s food further down the food chain. Now, let us tell you about what we are discovering at the Klaserie.

We have been working in the KPNR for the last two dry seasons, spending one to two months at a time, and each year just gets better and better. We are using a piece of equipment that Mike and I developed a few years ago that has proven indispensable in studying how fear affects wildlife. We call it the Automated Behavioural Response system (ABR). Each ABR consists of a regular, motion-triggered camera trap that is hooked up to a custom-built speaker that we fasten to a tree. When an animal walks by, it sets off the camera, which then sets off the speaker that plays 10 seconds of sound. The video feature of the camera trap then allows us to film how fearful animals are. If an animal flees, it is considered afraid. If it hangs around and continues feeding or drinking or wallowing, it is clearly not afraid. Seeing animals come to life on video and watching them as they respond as they normally would to predators, is something you don’t normally see every day, but we do in these videos. It is an incredible, unique experience.

In 2017, we started this work by testing wildlife’s responses to several large carnivores to see what the herbivore community was most afraid of. We found a clear “hierarchy of fear”: Lions were most feared (prey ran from lion grows 60% of the time), followed by wild dog (prey ran 40% of the time), then cheetah (prey ran 30%). Not surprisingly, the herbivores were not afraid of benign bird calls. What is quite amazing is that while the herbivores fled from the large carnivores, the large carnivores did the opposite and typically approached any and all sounds. This has given us a new set of ideas to test in future years.

In the meantime, this past dry season, 2018, we again brought our system to the Klaserie and set up in Thornybush as well. This time we were interested in understanding how afraid prey may be of the very top predator in the food chain: Humans. We have become interested in this because our previous research has given us reason to suspect that animals will be afraid of humans when humans are a key source of mortality. Using our ABR, we have demonstrated that mountain lions in California and European badgers in the UK are more afraid of people talking than any other sound we throw at them. We know that humans have been the main cause of death of both species for over a century, but the connection between humans as predator and the fearful responses in prey has not been directly tested. In 2018, our goal was to gauge wildlife’s responses to human sounds (people talking, gunshots, domestic dogs barking) to see whether they are more afraid of us than they are of lions. A second component is whether prey flee more often to humans in the Klaserie, where hunting occurs, compared to Thornybush, where hunting is absent. We acquired a staggering 15,000 video responses, and preliminary results are as expected. So far, so good.
Look-alike birds:
Part 4

Article & photos by Derek Solomon

The correct identification of birds can be problematic, particularly when two or more species look fairly similar. In many cases the adults are fairly easy to identify but the juveniles or immatures can cause problems. This series takes a look at various common but often confusing or look-alike birds that can be found in the Klaserie Private Nature Reserve and surrounding areas.

The Martial Eagle and the Black-chested Snake Eagle are two raptors or birds of prey that often cause identification problems in the field.

Martial Eagle

The large size, brown head and upperparts and white underparts should make this eagle easy to identify but it is often confused with the adult Black-chested Snake Eagle. When perched, the two most important characters to look for are the spotted underparts and the fully feathered legs. It also has a slight crest at the back of the head, although this is not always raised.

In flight, the adult Martial Eagle has all dark underwings which clash with the all-white underparts and helps to confirm identification even from a long distance.

The immature on the other hand is grey above with white underparts and no spotting. The underwings are mainly white, with the main flight feathers turning black as it mouls into adult plumage.

Black-chested Snake Eagle

Although it is much smaller than the Martial Eagle, at a quick glance it is easily confused with the Martial. The upperparts, head and breast are blackish and the underparts completely white. Together with this, the most important characters to look for are the lack of black spots on the underparts and the unfeathered legs. In addition, the crown is smooth and rounded with no sign of a crest.

In flight, the underwings are white with black barring across the flight feathers.

The immature is brown with dark blotching and barring on the underparts. On the underwings there are narrow dark bars on the flight feathers.
The serval *Felis serval* is a lovely and scarce member of the cat family and can be found throughout the Klaserie Private Nature Reserve (KPNR). However, it likes to be near water and has a preference for bushy areas or areas with long grass. In appearance it resembles a young cheetah but has longer, pointed ears and a shorter, ringed tail – cheetah have stubby ears and a long, spotted tail.

I was once having breakfast in a rest camp in the Kruger National Park and a family at the next table were talking about a cheetah cub they had seen that morning and wondering where the adults were. They produced a camera and were looking at photographs they had taken, so I asked if I could have a look. When I told them it was a serval they were surprised and admitted they did not know what a serval was. Then they were impressed when I told them how scarce they were and hardly ever seen. They felt proud when I told them it was wonderful that they were able to photograph it.

Serval are mainly nocturnal but are sometimes seen at dawn and dusk, as well as on rainy or overcast days. Their food consists mainly of rodents such as Angoni vlei rats, single-striped and multimammate mice. Larger cane rats are also a food source and they have no hesitation in taking to water in pursuit of prey. Prey is mostly killed with a slap from a forepaw. They also include insects in their diet.

It is sad that in agricultural areas outside reserves they are often killed for the mistaken belief that they attack livestock, which they never do. This, plus habitat displacement, has caused them to be listed in the CITES Red Data Book as rare. Fortunately there are protected areas such as the KPNR where they are secure.

Generally, serval are solitary animals but males and females can be found together when they are breeding. Up to three young are born in summer, usually in grass dens, but also in disused aardvark burrows on occasions.

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**Serval: A small, elegant cat**

*Article by Peter Lawson*

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In the last article I let on to the fact that I wish we still had a rich tradition of storytelling, not just with regards to the night sky but with nature as a whole. It is something that I believe develops intrigue and respect for the natural world. Of course, over time with changes in society and information, the stories must change too. Ancient Greek mythology would do little to create reverence in our minds, it may be interesting or entertaining to hear but unlikely to make you feel connected to the stars in the way the stories did so for the Greeks.

We no longer think the earth is at the centre of the universe and we have massive telescopes, both optical and radio, to see deep into space. When you walk through a forest you can see the natural cycle that takes place over long periods of time. Saplings become trees which eventually mature into forest giants that fall, slowly decomposing and providing nutrients for new saplings. Astronomers can gaze out into space and see stars at different stages of development. They can see that even stars go through the cycle of life.

In the simplest sense, stars are born out of huge clouds of hydrogen that are gradually pulled together with gravity until it reaches such an enormous mass that the pressure and temperature cause fusion. The hydrogen fuses into helium and in the process gives off energy, lots of energy! Although, just like the trees in the forest, not all stars are the same. Some are made from such massive volumes of hydrogen that things get a little more exciting with the nuclear fusion of elements. The hydrogen fuses into helium as described earlier but the sheer abundance of matter causes the core to become even hotter and denser. A new core is formed as carbon is fused from the helium and so the process goes on, fusing heavier elements at the core of the star. The core becomes denser and denser, releasing masses of energy outwards which in turn balances the inward pressure and keeps the system from collapsing.

Once a core of iron is formed, things begin to change and nuclear fusion is halted at the core because iron requires too much energy to fuse. The core grows denser and with no outward energy to fend off the inward pressure the system collapses and the star goes supernova, exploding all of its matter for trillions of kilometres. This event produces such tremendous energy that the iron can now be fused into heavier elements such as gold, silver, uranium and others. So just as a giant forest tree falls and decomposes to provide nutrients for new trees to grow, supernovae explode out into space and provide new material for the birth of stars and their planets. The gold that makes your jewellery, the uranium that powers nuclear war and the platinum that caused tragedy in Marikana were all formed in a supernova. In fact, the calcium in your bones, iron in your blood, and phosphorus in your hair were all made thanks to a supernova. How wonderful to know that you and I are made of things that stars are made of.
**Going the extra mile:**

**Janelle Genis**

Article by Catharina Robbertze & photos by Top Photography

In this series we feature some incredible people who are driven by dedication and an absolute passion for what they do to make a real difference in their chosen field. We salute you.

Dr Pete Rogers is well-known in wildlife circles around the world. His work as wildlife veterinary surgeon has saved many an animal’s life and he’s known to be available at any time of the day or night. However, not many people know that Dr Rogers has a helping hand who is always there with him, making sure he has everything he needs to treat an animal successfully.

Janelle Genis has been Dr Rogers’ assistant for the past 15 years and is an integral part of his practice. Some, including Dr Rogers, would go as far as saying she is indispensable. When Dr Rogers is in a helicopter, darting an animal, Janelle is following on the ground with all the necessary equipment she packed herself and managing all the logistics and numerous people involved with the operation. There is hardly a photo of Dr Rogers where Janelle isn’t visible in the background and her presence has been an invaluable part in the rescue of dozens of animals.

15 years of adventure

Janelle has lived in Hoedspruit for 15 years and has been Dr Rogers’ assistant for almost this entire time. Before this, she worked mostly with small animals at a veterinary practice in Louis Trichardt, but she took a chance when she arrived in the town and contacted Dr Rogers to ask if he needed an assistant. “I was moving to Hoedspruit and knew about Dr Rogers so I phoned him up and asked him if he needed someone and luckily he did,” she says.

It has been a rollercoaster ride ever since, she continues: “I don’t have any formal qualifications as a veterinary nurse and was thinking of doing a diploma but decided instead to get into the practice and learn with him. He saw I was interested and decided to take a chance on me and now we’ve been through so many experiences together.”

**A day in the life**

Although they work on small animals as well at the practice, they mostly focus on big game and, most of the time, they find themselves out in the field, reacting to an emergency. She explains: “Most of the time we have something planned for the day, but you never know what you’re going to do when you arrive at work. There is very often an emergency that has to be dealt with and planned procedures have to be moved out. You can have a rhino dehorning planned and on the same day there could be an injured rhino or an elephant with a snare and then you have to quickly go there and then get back to your dehorning.”

The work takes complete commitment and passion and that is probably where Janelle stands out from most other people. Most days she works from dark to dark and very often she will be at the office after everyone else, preparing the bag that needs to go to the field with them the following day, making sure they have everything they could possibly need, but not unnecessary equipment that will slow them down.

But, she says the hours don’t bother her at all. “I love coming to work, even if it’s long hours. I can’t see myself doing anything else. Every day when we go out to the field I get a knot in my stomach and I thrive on that. There are so many things that can go wrong, you have to be prepared for all of them, and the day you don’t have that knot in your stomach anymore, that’s the day you know you have to stop doing this,” she says.

She continues: “The best part of my job is to relieve an animal from pain. We see snared animals so often and to be able to take that snare off and treat the wounds – it’s almost like you can see the relief when that animal walks away.”

**The good, the bad and the ugly**

Unfortunately, it’s not all good all of the time however. “It’s amazing to save an animal’s life but you can’t save them all. You have to focus on the ones you did save but you never forget the ones you couldn’t. There are a lot of ups and down emotions every day. On one day you could have saved a wild dog’s life and that same afternoon you may have to put down a dog. That’s why we have to focus on the ones we can save and learn from the others,” Janelle says.

Another perk for Janelle is the variety in the job: “We work on everything, from elephants to pangolins. Nowadays we deal with many animals that have been confiscated from smugglers, like pangolins. When they get to us, we need to stabilise them and from here they get sent to Johannesburg to be rehabilitated.”

Over the years, Janelle has developed a special place in her heart for buffalo and rhino. She has worked on approximately 10,000 buffalo and 2,000 rhinos in the past 15 years. “There was a time when we were working 40-70 buffalo a day - you worked with those animals so often, you got to know them personally. At the moment, the majority of our work is with rhino injuries and a bit of dehorning,” she says.

She says the dehorning of rhinos has had a positive impact on the fight against rhino poaching but it’s still a big problem. One of her worst memories is going to an extremely bad poaching scene and she admits the rhino work has been very challenging. Luckily, there are also highlights and she remembers meeting the legend Steve Irvin during a cheetah surgery and being a part of one of the first airlifts of a black rhino.

She’s quick to point out that it’s the everyday things that keep her passionate: “I’ve had to jump into a river to wake up animals who have fallen asleep in the river to stop them from drowning, I’ve been chased by all kinds of things. Every day is a challenge, every species is different and you never know what you’re going to get when you arrive on a scene. I’m very thankful and lucky to be able to do this,” she concludes.
As the bush celebrated the arrival of spring, Eco Children celebrated yet another holiday workshop at the headquarters of the Klaserie Private Nature Reserve. As usual, the holiday workshops took place during the school holidays and over 500 children attended a workshop filled with fun, games and learning.

A very practical and important theme was covered during this workshop: How to be safe in the bush. This is important, not only because the bush can be a dangerous place, but mostly because the children at the workshop live on the reserve or just outside of it and chances are higher for them than most other children to encounter a wild animal one day.

During the workshop, the exemplary Eco Children volunteers taught the children about bush rules, respect for fauna and flora, how to stay out of trouble in the wild and a lot of time was spent on explaining animals’ personal space and the fight and flight response. It was a week of immense fun and valuable learning and everyone is looking forward to the summer version where Father Christmas is sure to make an appearance to hand over Santa Shoeboxes.

Photos by Sabrina Chielens
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