Singita

Photo by Brian Rode

WILDLIFE JOURNAL
Singita Kruger National Park
For the month of May, Two Thousand and Twenty

Temperature
Average minimum: 11˚C (51.8˚F)
Minimum recorded: 4˚C (39.2˚F)
Average maximum: 23˚C (73.4˚F)
Maximum recorded: 27˚C (80.6˚F)

Rainfall Recorded
For the month: 0 mm
For the year to date: 70 mm

Sunrise & Sunset
Sunrise: 06h32
Sunset: 17h15

Autumn has definitely arrived now. The early morning temperatures have dropped and one now needs to wear a fleece or jacket first thing in the day again. The sun is rising later and setting earlier every day. The leaves on the trees are starting to change colour again and are dropping from the branches. The winds have picked up seasonally and the leaves chase each other all over the place. Sometimes it looks like they are doing some type of intricate dance. The grass is starting to change colour and the veld has turned to gold in places. There is still a fair amount of grass cover in the concession as a result of the good rains that we had last summer and we are of the opinion that there will be good grazing for the animals for the majority of the winter months ahead. In the valleys, where the water table is high there are still some thick stands of green grass. Many of the seasonal

waterholes have dried up or are drying up, but there is still a fair bit of water in patches in the N'wanetsi River and the in the deeper pools in the valleys for the animals to drink. Gudzani Dam still has water and is attracting quite a few animals, such as elephants and buffalos.

Photo by Brian Rode

The impala lilies are in full flower now. They add a bit of colour to the landscape where they occur. Some of the aloes on the ridges are also just starting to bloom and will soon be attracting the beautiful, metallic-coloured sunbirds who are enticed to the sweet nectar in the flowers. The summer migrants have disappeared and birds such as the cuckoos, the European and southern carmine bee-eaters, barn swallows, lesser-spotted eagles and Wahlberg's eagles have started their long journeys northwards. Although the intra-African and Palearctic migrants have now left we have seen some of the altitudinal migrants arriving back. These are birds that move from the high mountains to the west of the area (where it is getting much colder now) and come down to the Lowveld where the day temperatures are still warmer. These include birds such as the beautiful red-capped robin-chat, which has become a regular in the thickets at Sweni Lodge, and the stone chats that can now be seen perched on top of bushes in the open grasslands (they are particularly obvious when driving on the H6 road between the lodges and the staff village). Over the last few weeks we have been hearing the lions roaring close to the camp at night. Although there have been no guests at the lodges (due to the lockdown) we have seen the Shish Pride on one or two occasions near the camp and we have seen Mananga Pride, on the odd occasion, while checking the boundary roads. The cubs are growing up quickly and are still looking healthy. It makes us wonder what they are thinking now that they are not seeing vehicles as often anymore. We are looking forward to the time that people can and are willing to travel again. Come and visit as soon as you can. We would love to share to this amazing area and the stunning nature and wilderness here with you again.

Some Bush Stories follow, as well as a May Gallery of images.

An amazing encounter on foot **Article by Coleman Mnisi**

Photo by Brian Rode

On a morning training exercise my colleagues and I were dropped off at Pony Pan from where we had to make our way back south towards the lodge. It started as a quiet morning as it was a bit cold which led to less activity of animals. We were enjoying the experience and had much to look at, from different animal tracks, grasses and all the interesting trees.

Within an hour of walking we decided to take a short break at Dumbana Pools where a hippo sighting was expected. When we arrived there we spotted a young male leopard watching us from only 40 m away. I was so amazed by how relaxed he was and not showing any signs of being uncomfortable with us. Everybody was moving around trying to get a good view of him as he jumped from rock to rock playing and looking for any potential food in between the rocks. He was a young leopard and they don't always need to bring down a big animal for food. It was our first time to actually watch a leopard be playful with people close by looking at him. A few minutes later he went towards a hamerkop nest trying to reach into where the chicks were, but it wasn't an easy thing for him to do.

I had so many questions in my mind after looking at his reactions towards people on foot. With so much respect we slowly started walking away from him. I turned and looked back at everyone and I could see the emotion and excitement on their faces. If this is how animals have so much trust in human beings then we should also fight and strive for their peace and protection in their natural habitat, and hopefully they live long to the next generations.

Searching for and tracking down the big cats **Article and photographs by Brian Rode**

A sighting of one or more of the big cats tends to be a highlight for many of the guests that come to Singita Kruger National Park. When I refer to the "big cats" I am referring to lions (*Panthera leo*), leopards (*Panthera pardus*) and cheetahs (*Acinonyx jubatus*). We are fortunate to have a chance of seeing all three of these cats in the Singita Lebombo concession of Kruger National Park.

The idea of seeing these large cats is often stimulated by watching wildlife documentaries. Unfortunately, these documentaries often give people the impression that these large cats are abundant, easily found and are hunting most of the time (the reality is that these documentaries have taken years to film and that only the highlights are shown).

As apex predators at the top of the trophic pyramid the big cats are actually relatively scarce in relation to all the herbivores. It is not easy to find them. It takes quite a skill and lots of luck too! Fortunately, Singita Kruger National Park, has some incredibly skilled guides and trackers, who are intimate with the bush and who work together as a team to find these elusive cats for guests to see and photograph. One's chances of seeing some, if not all three of the big cats, in a two to three-day safari here is reasonably high. Singita Lebombo is well known particularly for lion sightings. The guides and trackers use various methods to try and locate these predators. We search their favourite habitats with trained eyes, and we try and calculate where they are likely to be based on their specific behaviours; we listen for alarm calls from other animals; and we follow the tracks and signs that they have left behind. Each of these cats have favourite places that they like to be, which helps us to find them.

Cheetahs prefer open grasslands so they can hunt and chase down their prey. They often lie in the shade of a tree in the shorter grassland areas (like the Central Depression and Golf-course Clearing). When they are lying down, resting, they tend to lie flat on the ground with their heads raised at a right angle to their bodies. We

therefore tend to look for the shape of their small heads sticking up above the grass. Cheetahs also like to climb up fallen trees in order to be able to search for their prey. In other areas, like in the Sabi Sands Game Reserve the cheetahs often make use of large termite heaps in order to look around.

Leopards can climb well and in the our concession they like to rest up on the cliffs and ridges, where they have a good view over the veld below them. Leopards can, on occasion, be found in trees (particularly when they have kills that they place up there to avoid hyenas from stealing their food). We do not have many large, easily climbable trees here and so we do not often find them lying up in trees. In other areas it is important to check out all the large marula trees, which have thick branches for leopards to lie on. When looking for a leopard in a tree one of the things that may give them away is the long tail that hangs down below the branch that they are lying on. Leopards have a bright white underside to their tails which can help us to find them. Sometimes our first indication that there may be a leopard in the long grass or thick vegetation is a flash of white as they flick their tails.

Since the big cats have pads on the bottom of their feet, which may be vulnerable to thorns, they tend to like to walk along the roads and along the well-used animal paths. Lions, in particular, are often found close to roads or well-trodden animal pathways. During the heat of the day lions tend to sleep in the shade of trees and this is a good place to look for them.

Finding and following the tracks (trailing the animal) is like finding the thread that is attached to the needle in the haystack. If you are able to follow it all the way it will eventually lead to what you are looking for. Unfortunately it is not quite as easy as just following the trail. The pads on the underside of the feet of cats do not always leave clear imprints on the ground. Cats often walk over leaves, through thickets, over rocks, over hard clay surfaces or through long grass which can cause the trail to be lost. They often change direction and the trail can be very erratic, without a dominant direction (particularly when they are hunting). The large cats don't really want to be seen and hide well. It takes an extraordinary amount of skill in order to trail and find the cats on a regular basis.

Other animals also help us to locate predators by giving loud or distinctive sounds. Many antelope give an explosive bark when they see large cats and jackals often follow behind cheetahs howling loudly. We also pay attention to the behaviour of the other animals in the area. Many antelope have an "alert stance". They will all stare at the predator and may even follow the predator for a while at a safe distance. Animals running away from a particular area (and particularly towards you) might indicate the presence of a predator hiding in the bushes or trying to hunt them. Vultures descending from the sky to a particular point or large numbers of vultures perched in dead trees could indicate the presence of a carcass and the predator that killed it. It is more likely that the predator is still in the vicinity if the vultures are perched as opposed to if the vultures are dropping to the ground, since lions will often chase them away and even try to kill them. Hyenas running in a particular direction may also give an indication that a predator has killed, or is busy killing some unfortunate animal.

We can also use our sense of smell when trying to find the big cats. The smell of death and decay might indicate a carcass that the predators have been feeding on. Additionally, carnivore droppings (when fresh) can be quite pungent! When cats mark their territories they often spray urine onto bushes. This urine has a smell very similar to popcorn (particularly the territorial spray of a male leopard). Any of these scents may give us an indication that there was or is a cat in the area.

Our trackers often track down these cats for us on foot so that the guests can see them. While out on drive, the tracker may see fresh footprints of one of the cats from his seat right at the front of the vehicle and stop the guide, who then gives the tracker a rifle and a hand-held radio and drops him off to continue following up on the tracks on foot. The guide then communicates with the tracker by way of radio and together they co-ordinate the search for the animal. If the tracker finds the animal he will then communicate this with the guide who will then come and pick the tracker up again and take the guests to go and view the animal that was being searched for.

When guests are exposed to a tracking / trailing experience, while on safari, it can be an incredibly rewarding experience and a highlight of their trip, particularly if all the hard work pays off and they get to locate and see the predator that they have been looking for. One gets a major sense of accomplishment and achievement when, after hours of searching, one is rewarded with a view of one or more of these beautiful cats.

Most guests do not physically get involved with the tracking down of cats on foot. However, it can be just as thrilling to find the fresh footprints of one of the predators and with the aid of the guide and tracker, follow the trail while in the vehicle and try to figure out where they could be. It is like playing a game of hide-and-seek. In order to do this one first has to find the footprints and identify which species left them. One of the characteristics of all cats is that they have three lobes at the rear end of the plantar pad / metacarpal pad (the

main pad of the track, much like the palm of a hand). Dogs and dog-like animals tend to only have two lobes at the rear of the plantar pad. Cats usually have four toe pads / digital pads in a semicircle around the front of the plantar pad. Most cats have retractile claws and only extend their claws when they are needed (in the case of hunting prey or climbing trees). When they are walking, lions and leopards do not generally extend their claws and therefore claw marks are generally not visible on lion or leopard tracks. Cheetahs have semi-retractable claws / non-retractable claws and as adults they cannot withdraw their claws fully. Cheetahs use their claws for grip when running and their claws therefore get worn blunt through usage. Claw marks may on occasion be seen when viewing cheetah footprints. Claw marks are usually visible on dog / dog-like tracks.

Once we have established that we are indeed looking at the tracks of one of the big cats (as opposed to one of the dog-like creatures such as African wild dogs or spotted hyenas) we then need to establish which of the three large cat species left the prints.


Lion


Leopard


Cheetah match-stick = 42mm

Lion prints are very large in comparison to those of cheetahs or leopards. Adult lion tracks usually measure between 100 and 140 mm in length (from the back of the plantar pad to the front of the toe pads). Lion tracks are also much wider than those of leopards or cheetahs. The sex of a lion can quite often be distinguished from the track. The plantar pad in lions tends to be quite square / angular (particularly in males), whereas the plantar pad in females tend to be more triangular. Male lions have much larger, more bulky tracks and the front part of the plantar pad (just behind the toes) is flatter or even concave as opposed to the front of the plantar pad of a female which is more triangular or rounded. Claw marks are not usually seen in lion tracks. Leopard prints are smaller than lion prints (measuring between 70 – 100 mm in length). The digital pads are more rounded and daintier. Sexual dimorphism is also exhibited in the tracks of leopards. Male leopard tracks are usually approximately as long as they are wide. Female tracks, however, tend to be longer than wide. Another way to tell between the tracks of a male leopard and a female leopard is to look at the two outer lobes at the back of the plantar pad. In male leopard tracks these lobes tend to be more rounded and the edge of the plantar pad tends to be straighter as it goes towards the front of the pad. Female leopards have more angular outer lobes and the edge of the plantar pad (going towards the front) may be slightly concave. Claw marks are usually not visible in leopard tracks. There may, however, be confusion between the tracks of a male leopard and lion cubs (between the ages of 6 months – 1 year) as they are quite similar in size. Usually lion cub tracks will be found with adults, whereas male leopards tend to walk alone.

Cheetah tracks are similar in size to those of leopards, although they tend to be longer than wide. The track of a cheetah usually measures 80 – 100 mm in length. Claw marks may be visible. The lobes on the back of the plantar pad tend to be much more pointed and stick out further than in the other cats (particularly the outer two lobes). The plantar pad, itself tends also to be much more box-like than the triangular shape of that of a leopard. The plantar pad also tends to be smaller than that of a lion or leopard.

When cats walk at a normal pace their front and back footprints tend to register directly. This means that their back foot goes onto the exact same position that the front foot has just left i.e. the back print usually aligns directly on top of the print of the front foot. As the cat picks up pace the back footprint is usually placed further forward than the front foot. Generally speaking, the further forward the back print is from the front print the faster the cat was travelling. The prints of a cat running also tends to show dust that has been sprayed forward from the track and, often, the digital pads (toe pads) spread more widely apart.

Tracking and trailing big cats can be very interesting and exciting and can be the highlight of a guest's stay. Luckily we do have some incredibly skilled trackers and guides who will do their best to find the cats for guests who come and visit us.

Some of the venomous snakes of the South African bushveld areas

Article by Chantelle Venter
Photos by Brian Rode

Snouted cobra

Only 16 out of the 151 species of snakes found in southern Africa have venom considered to be life-threatening to humans which includes: two species of mamba, six species of cobra, coral shield cobra, Gaboon adder, puff adder, berg adder, boomslang, and two species of vine snake. The vast majority of snakes seen in the African bush are not deadly to humans (many are constrictors or have venom that does not seriously affect human beings). Less than 1% of snake bites result in human fatality. The chance of being bitten by a snake can be minimized by wearing boots when walking or hiking, keeping a safe distance away from snakes and avoid playing or trying to catch them, especially if you are not able to identify what type of snake it is. One should be very careful when moving / lifting rocks, branches or building material as snakes might use these areas to hide away. It is also important to watch carefully where you are walking and to be wearing closed shoes. At night the use of a torch is extremely important in order to avoid the possibility of stepping on a snake.

Snake venom is made up of proteins and peptides, and is stored in modified salivary glands that are situated behind the eyes, on either side of the head. Venom plays an important role in aiding snakes in defence, the capture of prey and also speeds up the process of digestion (as they are unable to chew their food).
Venom types are generally classified into four main groups namely: neurotoxic (affecting the nervous system); cytotoxic (affecting tissue); haemotoxic (affecting blood chemistry) and myotoxic (paralysis of muscle). Many snakes have a combination of different types of venoms.

In order to help you identify some of the dangerously venomous snakes found in the African bushveld, see a brief description below:

Black mamba (*Dendroaspis polylepsis)*

Black mambas are the largest venomous snakes found in southern Africa. The black mamba is one of the most feared creatures in Africa. Adult snakes can reach an average length of 2.5 to 3 meters, although mambas are said to reach a maximum length of up to 4 meters. They can be described as both slender and agile, with large heads, and are able to spread a narrow hood and gape to show the black colouration inside of the mouth.

They have a characteristic smile when viewed from a side profile and have a head shaped like a coffin. Their body colour can vary from a dark olive to a grey-brown or typical gunmetal grey and they have pale grey bellies.

They are generally considered to be terrestrial and feed on small mammals, but can also be found hunting squirrels and birds in trees and bushes. They are considered to be one of the most dangerous snakes in Africa due to their supposed nervous disposition and potent (neurotoxic) venom. Mambas are not often seen and are quite territorial.

Mambas are what we refer to as proteroglyphs (based on their dentition). They have short, hollow (like an injection needle), fixed, fangs that are situated at the front of the mouth.

The venom of a black mamba is generally considered to be potently neurotoxic. Symptoms of a mamba bite may include dizziness, nausea, ptosis (drooping of the eyelids), difficulty in swallowing and breathing, slurred speech and possible headaches. In cases of severe envenomation death usually results from organ failure.

Puff adder (*Bitis arientans*)

Puff adders are short, stocky snakes. The average adult length is in the region of 1 meter, although further north in Africa it has been reported that they could possibly get up to 1.8 meters. Puff Adders rarely get longer than 1.3 meters in southern Africa.

They are very distinctive looking snakes, with a triangular-shaped head and light chevron markings (V-shaped) on a brown and khaki background. They are extremely well-camouflaged and blend in well with their surroundings. They have keeled scales (the scale has a ridge running down the middle) on the upper surface that make them look rough. They tend to be terrestrial, spending most of their time on the ground. They are very seldom seen in trees or bushes.

Puff adders are generally fairly stationary in nature and often lie next to animal pathways waiting to ambush prey such as mice and other rodents. If one walks too close to a puff adder it may warn you of its presence by making a hissing sound (hence the name). Although they appear to be sluggish snakes puff adders are able to strike extremely quickly.

Puff adders are considered to be solenoglyphs. This means that they have long, hollow, recurved fangs (up to 2 cm long) that fold back in the mouth when it is closed. The fangs are situated near the front of the mouth. The venom of a puff adder is considered to be cytotoxic in nature. Symptoms of a puff adder bite include extreme pain, massive swelling, the possibility of blood-blisters forming and necrosis (cell decay and tissue destruction). Although bites from this species are considered to be extremely serious most do not result in death (if proper medical help is sought). Amputation of the affected limb may occur in extreme circumstances.

Mozambique spitting cobra (*Naja mossambica*)

The Mozambique spitting cobra is a fairly common snake in the lowveld area. It can be fairly long (it can exceed 1.7 meters in length). They are very elegant looking snakes with a “mean” face. They are generally light brown in colouration with a salmon-pink underside and often with black stripes across the chest area. They are able to spread a wide hood.

Mozambique spitting cobras are generally nocturnal (active at night), although they can also be seen during the day on occasion. They feed mainly on frogs, toads, rodents and reptiles (sometimes even other snakes). They are often found near human habitation (in rural areas) and hide under rubble, building material etc. This is possibly the venomous snake that we encounter the most in the lodge surroundings.

They have a dentition much like the black mamba (proteroglyph), although the fangs and venom are specifically adapted to a snake that spits. The venom glands tend to be large with strong muscles to push the venom further. The venom is also more liquid so that the snake can spray it over a distance. The hole at the tip of the fang is such that it directs the venom out at a ninety-degree angle to the tooth and the aperture is slightly smaller than that of non-spitting cobras (so that there is more pressure to force the venom out). Mozambique spitting cobras are able to spray their venom even without spreading a hood. They are able to spit their venom for up to a distance of 2,5 meters.

These snakes have a predominantly cytotoxic venom (much like that of a puff adder). Venom entering into the eyes causes immediate pain, a burning sensation, chemosis (it causes the eye to ooze), swelling of the cornea, redness to the sclera (the white part of the eye) and loss of eyesight. If venom gets into the eye it needs to be washed out with running water thoroughly and the victim needs to get to a doctor as soon as possible to avoid becoming permanently blind. Even after the venom is washed out of the eye it may cause a “scab” to form over the eye, which can be seriously painful and irritating (particularly when blinking) until the eye heals fully.

Snouted cobra (*Naja annulifera*)

The snouted cobra (which also used to be referred to as an Egyptian cobra) is one of the larger, more impressive cobras in southern Africa. This snake can get up to 2,5 meters in length and can spread a wide hood when it feels threatened.

These snakes may come in various colour forms i.e. a beautiful golden, honey-hued colour, or a dull grey (similar to a black mamba) or even have broad, interspersed bands of black / dark grey and cream. The lighter coloured individuals often have a dark “tear-drop” under the eyes. The darker forms may have blackish bands across the chest and the underside tends to be yellowish in colour. Juveniles may have a black band across the chest. Snouted cobras can become quite thick in girth.

These snakes are usually nocturnal, but may be seen moving about on overcast days. They often bask in the morning sun close to where they live. Snouted cobras feed predominantly on toads, rodents, birds, lizards and even other snakes (they seem to be particularly fond of feeding on puff adders). They are mainly terrestrial, but may also climb into bushes or trees.

Snouted cobras have a dentition similar to mambas. These snakes have a predominantly neurotoxic venom, with some cytotoxic qualities. Snouted cobras are not spitting snakes.

Boomslang (*Dispholidus typus*)

The boomslang (an English translation is “Tree Snake”) is a beautiful arboreal (it lives in trees and bushes) snake with large eyes and a small bullet-shaped head. It is a long slender snake that can attain a length of up to 1.6 meters. This is one of the few snakes that are sexually dimorphic. Males tend to be bright emerald green, whereas the females tend to be brown or grey. In the western Cape region the males can be black with bright yellow, orange or green bellies. The juveniles often have bright green eyes. Boomslang have got keeled scales (like a puff adder) on the upper surface of the body which help with keeping grip when climbing tree trunks or when moving from branch to branch. When distressed these snakes may puff out their necks (in a ball shape as opposed to flattening the neck out like cobras). These snakes have got amazing eyesight and are supposedly able to see stationary objects. The positioning of their eyes and the hollow in front of the eyes gives them binocular vision and allows them to judge distance well.

These are diurnal (active during the day) and hunt birds, frogs and reptiles (chameleons in particular). They also raid bird nests to feed on the chicks.

Boomslang are considered to be fairly relaxed, placid snakes and very seldom attempt to bite people unless they are harassed or caught.

They have opisthoglyph dentition, with their short rearward facing fangs placed deep within the mouth. These fangs lie in line with the back of the eye and are grooved, as opposed to being hollow. Because their fangs are placed far back in the mouth they are considered to be “rear-fanged or “back-fanged” snakes.

The venom of a boomslang is said to be haemotoxic and causes the blood-clotting mechanism to be affected. Symptoms from a bite from this snake may take a while to appear and appear as massive internal bruising. Blood may start flowing from previous injuries or from bodily orifices. This venom is said to be highly toxic but may take many hours for the symptoms to show. Very few people die from Boomslang bites and fatalities are as a result of blood-loss.

May Gallery **Photos by Brian Rode**