



The Kalahari

Adventure between desert and floodplain

Stefan Schreier
Hendrik van der Walt



**„I never knew of a morning in
Africa
when I woke up and was not
happy”**

Ernest Hemmingway

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Prologue

Dear Reader

We want to introduce ourselves and how we got to the part of the world that we describe and share in the following words and footage.

My new world

by Stefan

My interest in Southern Africa did not grow overnight. Step by step I got deeper into this region, the nature and the people. Until my first journey here, Africa was just another continent on the globe. Although I knew that there was a big variety of attractions, I had no clear plan of where to go first. I did not really know what to expect at all.

Only during my first visit in 2007, arriving from Germany, did I start to get an idea about the details of the region. I frequently talked with the African local people and slowly started to get an overall picture of where I was. I started to realise that I was in the Kalahari.

Every day that I am in this great wilderness area, I see, hear and smell something new and different. Not a single day starts like another and every sunset is unique. Every scene I witness is set in a different light under the constantly moving and changing cloud formations above. The Kalahari sky seems to be bigger than anywhere else I have ever been before. And I haven't even mentioned the incredible variety of life in this part of the continent yet.

When I experienced some of this during my first visit, my curiosity was ignited. It stimulated my appetite to experience more of it. I wanted to learn more, see more, to hear more and to smell more. Now, after visiting the region

several times over the last 12 years, my feelings about it are very different. As soon as my holiday is over and it is time to leave, I miss the place already! The last days on safari, we already start to think about the next itinerary. There are always new areas to explore, of course, but there are also parts that we will always want to go back to. As soon as I am back in Germany, my planning for the next visit starts.

Do not misunderstand me. On the one hand it is always good to go home again. The days out there in the bush and the savannah are long and at times challenging. With our descriptions of the experiences, we will share with you how we try to inhale as much of the bush as possible. This keeps us busy from dawn till dusk, and that is only a normal day. Under certain conditions, we might get up well before daybreak, maybe around 4:00 or so and we might be busy observing something interesting in the evening or even in the middle of the night. I have to ask Hendrik, who you will get to know better in the following pages, to apologise for our unconventional mealtimes. Breakfast can happen anywhere between 5:00 and 11:00, while supper is always eaten well after dark. We always take more than enough spare batteries with us for the different lights we need for our various nocturnal routines. When I get back home, I normally need to recharge my own personal batteries by catching up on some extra sleep!

In this book, we share the magic of the Kalahari with you. We want you to enjoy the region well prepared. The variety of knowledge we include in our descriptions of places we have visited is designed to enhance your own experience if you do come here eventually. Please take note that everything described took place in the limited periods of my holidays and mostly very close to the official tourist routes and tracks. Access is limited by the various Wildlife Authorities. This is, of course, in the best interest of conservation. That does not mean that we never manage to

go off the beaten track. This is Africa, and as Hendrik sometimes says, “Expect the unexpected.....!”

Under my skin

by Hendrik

The Kalahari is pure magic. Once under your skin, it lingers there forever. About it is a hypnotic quality that grabs your attention and stimulates your imagination. It is unlike anywhere else on this beautiful planet of ours. My first visit to this part of Southern Africa was in 1988, just a few months after starting to work as a hiking guide for Drifters. The founder, Andy Dott, offered me this opportunity after he had noticed on my CV that I had resigned from my previous job a year earlier to do a walk around South Africa, all along the coast. He kindly agreed that this provided me with enough experience to be called a hiking guide! Thanks to Andy I could then start to live out my passion for nature and above all, I discovered the African bush. Drifters was one of few operators that offered camping tours in the early years when South Africa was avoided by most travellers due to politics.

After a couple of hikes with small groups consisting mainly of South Africans, I was sent on a trip to Botswana. I went with an experienced guide to learn a bit how to conduct a safari there. Arno Oosthuizen was a very good mentor and we had a great time together. I got a glimpse of the great Makgadikgadi Pans on the way towards the Okavango Delta. When I experienced this wonderful place for the first time, I had the feeling that it was custom made just for me. Being a bird and tree lover, it was like discovering a pure piece of Paradise itself on Earth.

The delta satisfies just about all the most important needs that I have. The sights, sounds and smells are almost beyond description. Together with the rest of the places in

the Kalahari that we try to share with you in this book, it forms part of one of the few relatively unspoilt Wilderness areas still left on Earth. Once you get to know it a little, it grows slowly but surely from a seed planted in you by life itself. It grows into nothing short of a spiritual experience. You almost become a baobab tree yourself, or rather you realise beyond any doubt what a great giant and symbol of life it is. On many visits over 30 years, I'm reminded every day that we have a big responsibility and challenge to look after this gift of true Wilderness in all its glory.

During our first trip together 13 years ago, I soon realised that Stefan is a guy who is interested in everything in the bush and in nature. Taking pictures with a variety of cameras probably helps to keep him focused and attentive. For my personal observation binoculars are sufficient. I can only speculate how intimately acquainted with the local ecology my dear travel partner will be after 30 years of numerous safaris in the great African Savannah. I am very proud of the small part I might have played in assisting Stefan in discovering more about the secrets of the bush.

Good times and bad times

by Hendrik

This book was written and compiled during the current tough times we are all experiencing in different ways due to Covid-19. The economic implications of the pandemic are even tougher in the countries of Southern Africa. Tourism provides full time and part time work for thousands of people in this region. Since the release of the great Nelson Mandela from prison about 30 years ago, the industry has grown into a very important contributor to the upliftment of rural and urban communities everywhere in the region. Almost all these tourist activities ended abruptly at the end of March 2020. There was no early warning. The one

moment all of us involved in tourism were planning and looking forward to the busy season of 2020. We were all simply left stranded, especially the many freelancers among us.

Stefan has always wanted to share our travel experiences with others. This was the perfect time to sit down and do it. It also provided us with the opportunity to do some virtual travelling in the Kalahari, a place which we both love so much. This book will take you on a journey to the southern and central parts of the greater Kalahari, including the Makgadikgadi Pans, the Moremi Game Reserve, the Okavango Delta and the Chobe National Park further north.

We will share and illustrate a variety of interesting and unexpected information, which is not often covered in standard guidebooks. All stories are based on our own experiences and private magic moments while on safari. We touch on a variety of fauna and flora, as well as the local inhabitants and their legends. The geological and more recent history is briefly explained in simple terms. This will help you, our reader, to put the Kalahari in context. This is important as it will make it easier to understand how all the different pieces fit together into the bigger whole. The book is designed to stimulate the reader's appetite to find out more for him- or herself and to investigate further.

INTRODUCTION

History of the Kalahari

The greater Kalahari is a basin of sand that covers an enormous 2 500 000 square kilometres. The area contains geological as well as earth history. Here the evolution of flora and fauna, including that of humans, can also be traced.

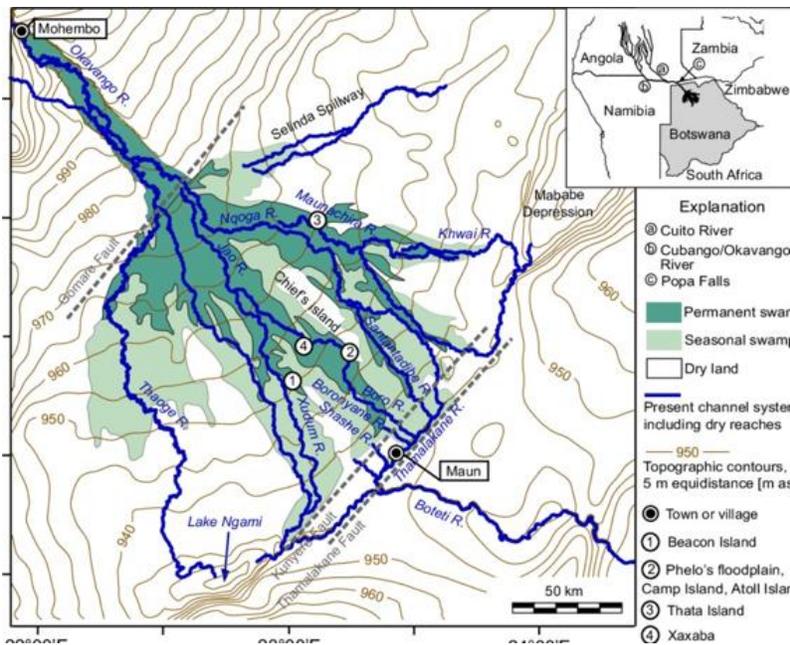
The name, Kalahari, is derived from the Setswana word, Kgala, meaning the great thirst.

This basin is the largest uninterrupted stretch of sand in the world with a depth of up to 200 metres, which is the result of erosion of the geological layers called the Kalahari - and Karoo Super group. It extends south to north all the way from the Orange River in South Africa to the tropical forests of the Democratic Republic of Congo [1]. The popular perception of most travellers is that the Kalahari is only a desert. It is however only partly true for the southern part, where the Kgalagadi Transfrontier Park and Central Kalahari Game Reserve are situated. The further north you go, the higher the rainfall. Nowadays, the deep sands are covered with more lush vegetation. The central part, which includes the Kafue National Park in Zambia and the Okavango Delta and the Chobe National Park, both located in Botswana, is rich in surface water due to the presence of the Okavango and Chobe Rivers. Both rivers originate on the highlands of Angola where more than 1 000 millimetres of rain fall annually. Downstream both waterways encounter the Gumare fault in Botswana.



The Okavango meanders in the Panhandle area between two parallel fault lines only, which lead the river from north to south. This upper course of the Okavango River delivers permanent water to the 80 kilometres long Panhandle. Then, it encounters the Gumare fault line and spreads out into a permanent swamp. Here it forms the UNESCO World Heritage site, the Okavango Delta, the biggest inland delta on Earth [2].

The water levels of the delta fluctuate continuously. Between the arrivals of the annual flood waters, we find temporary dry areas on the edge of the delta. These are called floodplains. Some large islands in the southern parts of the delta, like Chiefs Island and Chitabe Island, are parts of the so called Sandveld-Tongues which stretch up from the arid south. The combination of all this creates a paradise for a wide spectrum of flora and fauna, big and small.

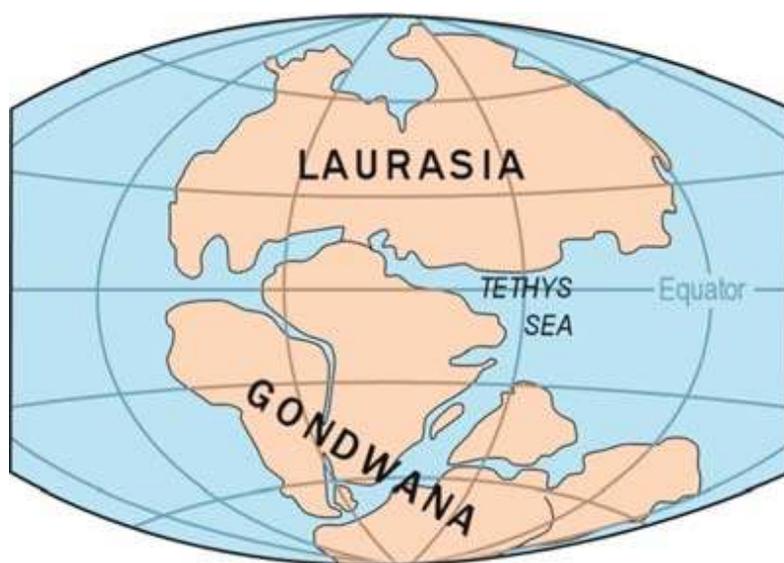


The Kwando River becomes the Linyanti after entering Botswana. Like the Okavango, it is also spread out into a swam by the fault line, only on a much smaller scale. The main outlet from the Linyanti is called the Chobe River. It flows along the Gumare fault in an easterly direction and forms the northern border between Botswana and Namibia. After flowing through the Chobe National Park, it joins the great Zambezi River near the Zambian and Zimbabwean borders with Botswana. The modern day course of the great Zambezi River, as will become clear in the next part of the introduction, was directly influenced by geological activity in the Kalahari and in the East African Rift Valley, 1 000 kilometres to the east.

A brief geological history of the Kalahari Basin

Africa was born as a continent approximately 100 million years ago (mya). Before Gondwanaland started to break up during the Triassic period about 200 mya, Africa was still

connected to Madagascar and four other future southern continents: India, Antarctica, Australia and South America [3]. Once Antarctica and the rest finally drifted away, each on its own tectonic plate, Africa finally stood alone. At that time reptiles were the dominant animals on Earth, having evolved after the insects, fish and amphibians. Mammals were tiny and nocturnal, hiding from the predatory dinosaurs that ruled the world. Soon after standing free and alone, the continent was uplifted due to activity deep inside the earth. Three great basins were formed in the process: Chad in the north, the Congo basin in Central Africa and the Kalahari basin further south.

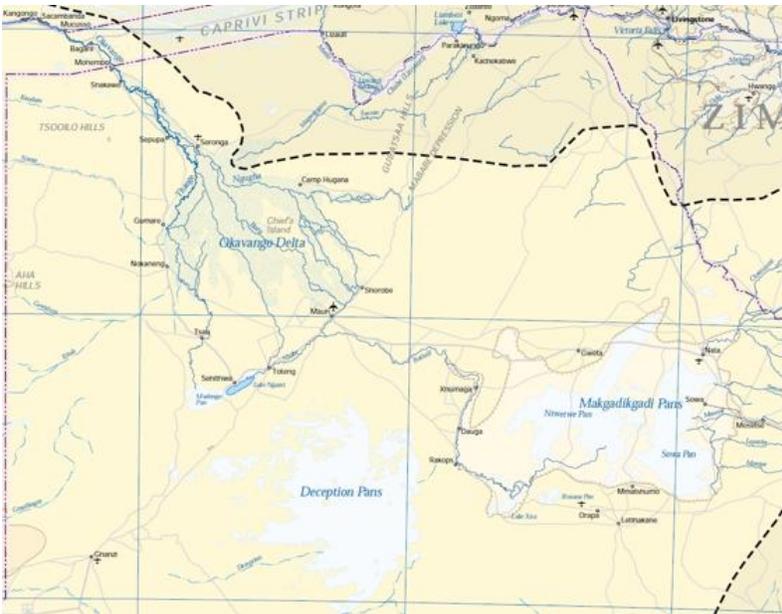


During the next 60 million years of erosion caused by water, ice, heat and wind, the Kalahari basin received most of the continent's sand. Africa kept on drifting southwards during this long period, resulting in the climate becoming increasingly drier. The climax vegetation changed from tropical forests to thorny shrubs and other plants that adapted in a remarkable way to the dry and sandy conditions. About 30 million years ago, tectonic plates were moving apart along the eastern part of Africa. This created a series of great rifts all the way from the Red Sea to just

south of where the Okavango Delta is today. As the plates moved apart in similar fashion, causing the breakup of the Super-Continent, Gondwanaland, volcanic activity along the lines of stress became common. High mountains were formed by the uplift that followed. The highest mountains in Africa were formed by volcanic activities. This includes the 5 895 m high Uhuru peak on the well-known Mount Kilimanjaro.



The influence of glaciation on Antarctica about 5 million years ago brought even more arid conditions to the Kalahari. The cold Benguela Sea current has since then transported water from the South Pole upwards towards Africa. Flowing north along the west coast of Southern Africa, it is the biggest reason for the low rainfall currently experienced here. Strong winds spread the sands far and wide. This created a more or less flat landscape of sand throughout the basin. Around 4 million years ago the long characteristic red dunes of the Kalahari were formed by the ever strong blowing easterly winds. Then followed a much wetter period.



This led to the formation of the Super-Lake Makgadikgadi in the heart of the Kalahari. Most of the water flowing into the area was finally guided by the dunes themselves towards the lake. The lake is estimated to have covered a surface of between 60 000 and 80 000 square kilometres at its peak. It was roughly in the shape of an hourglass, with the Okavango Delta on the one side and the Makgadikgadi salt pans on the other. It would have covered the area now occupied by the delta, the Makgadikgadi Pans, the Mababe depression in the Savuti part of Chobe NP, Nxai Pan, Lake Ngami and the surrounding areas [4].

Approximately 3 million years ago a new fault known as the Kalahari/Zimbabwe axis was formed by warping of the earth's crust. This resulted in the lake receiving even more water until it reached its capacity. Water was subsequently forced northwards and then eastwards by a new fault line in its way towards the Indian Ocean. The formation of the first Victoria Falls happened as soon as the upper Zambezi dropped over a 300 metres high basalt cliff well downstream from where the current Victoria Falls is. As soon as this happened around 2 million years ago, it was connected to the middle Zambezi, which was busy cutting

back slowly due to geological processes started south of Lake Malawi in the East African Rift Valley. The middle Zambezi was capturing several rivers, including the Luangwa and Kafue, in the process. Finally, it also caught and captured the water falling over the edge of the extensive Basalt plateau as described already. Since then, it kept on cutting back in a zig zag fashion in sandstone plates embedded in the hard basalt lava rock.

In this way several new falls were formed over the last 2 million years forming today's Victoria Falls and gorges downstream. The process, which happens at a few centimetres per year, is still carrying on to this day. After completion of the current route, the Zambezi became the 4th longest river in Africa at 2 574 kilometres. It is the largest river in Africa that drains into the Indian Ocean. After this whole geological drama, that finally brought two big rivers together from a distance of more than 1 000 kilometres apart a long time ago, a return to a drier period commenced again in the Kalahari. These arid conditions still exist today.



Evolution in the Kalahari

The Kalahari sand is teeming with life just under the surface. It provides cover for a large variety of both bigger and smaller mammals, insects and reptiles. Life underground not only protects them against predators, but also against the intense heat of summer. The top layer of sand could easily exceed 50 degrees Celsius in the middle of the day. The current variety of animals and plants has evolved unusual ways to cope with the relentless summer heat and the freezing cold winters. The following are some examples.

The oryx is one of Africa's biggest and most beautiful antelopes. Locally known as the gemsbok, it is perfectly adapted to live in the most arid conditions. Both sexes carry long rapier sharp horns to defend themselves against all predators. Their silver grey coats reflect the sun and help them to withstand the intense heat. These remarkable animals can tolerate temperatures that would kill most others. Its first defence against the heat is physical orientation. Gemsbok retreat, whenever possible, into the shade to avoid overheating. It might lie down in the shade with its belly on the cooler sand. When no shade is available or when it needs to graze, the animal will try to keep the smallest part of its body turned to the sun and the biggest part to the breeze. This helps to release excess body heat. The white belly reflects heat and solar radiation from the hot sand during the day.



Oryx antelopes also have various less obvious ways to cope with the harsh conditions of their habitat. They do not pant and sweat to stay cool. Instead, they breathe deeply and slowly to preserve precious moisture. The blood flowing to the brain is cooled by a special network of veins situated in the nasal passage. The feature that protects the brain of the antelope is called carotid rete. Blood cooled down by the nasal area is then used to cool down the blood on its way to the brain. Heat is exchanged in this process. It is a very efficient way to protect the body and simultaneously avoid too much sweating (which has the result of fluid loss). When open water is not available these extraordinary animals can survive by obtaining enough water from plants like the tamma melon, gemsbok cucumber and the gemsbok bean, to name but a few.

Some animals, like the desert pygmy mouse, are only active at night to escape the energy sapping heat during summer days. This tiny mammal can live without water. It gets its moisture through its diet of harvester termites. It also feeds on grass seeds. It takes shelter in shallow burrows in the sand during the day.

Other species like ground squirrels and suricates also live in burrows but forage for food during the day. Ground squirrels carry their own sun umbrellas behind them! They turn their backs towards the sun. Then they simply raise and fan out their bushy tails. It protects these cute little animals against the blazing heat. The meerkat, as the suricate is often called, evolved into one of the most sociable creatures on earth. *Meerkats United* was a popular documentary made by the BBC and narrated by David Attenborough. The title says it all. Meerkats have learnt through the millennia how to work together as a team for protection and survival. Living in groups of twenty or so, some members stay at the home base to defend the shelter while others are out searching for food. Anything from beetles to scorpions and snakes will do. They remove the stings from scorpions before consuming one of their favourite meals. While they hunt, there is always one meerkat on the lookout for predators, especially eagles in the sky above. The guard would be totally alert to any possible danger. The little fellow typically stands on its hind legs, often on a small mound or bush, to increase the visual range it could cover. If the sentinel spots something like a martial eagle circling too low for comfort right above them, it will screech a sharp warning call to alert the rest. The meerkats will disappear into their communal burrow in a flash, giving the eagle little or no chance of success. As soon as the big bird acknowledges defeat by rising on a thermal above, the cute little animals are out in the open again to carry on their busy ways. A new lookout will then replace the colleague who just did a great job. He surely deserves to be released from his post for a while.

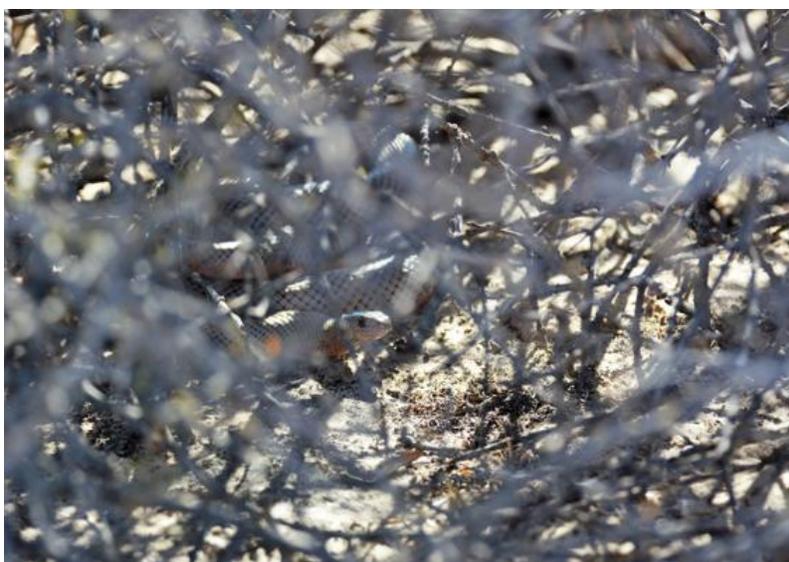


The oldest forms of life in the Kalahari are the insects, frogs and reptiles. They have more than 100 million years of evolution behind them. The successful species could perfectly develop the compromises necessary for survival in one of the most inhospitable environments on earth. This has resulted in some of the most unique and fascinating physical and behavioural adaptations in nature. Most of the animals and plants actually use the very sandy environment to their advantage for survival. For example, the rain frog (*Brevicedes adpersus*) is one of the most unique of its kind in the world. Although widely distributed in Southern Africa, it is an amphibian that is totally independent of

water. This little round frog has a large bladder that enables it to store and recycle water while it aestivates (hibernates) under the sand during the winter months. Most fascinating about it, is its totally waterless life cycle. In fact, it is a frog that cannot even swim or jump for that matter. If threatened, it can blow itself up to about twice its own body size to deter the predator. These weird amphibians are only 2 - 3 cm long with fat round bodies, tiny flat faces, short legs and small feet. Because of these physical disabilities, the males cannot grasp the females during the mating process, called amplexus. His arms are simply too short. So, they exude a sticky substance from their skins, which glues them together when he perches on her back. The pair then digs together with their hind legs into the soil until a moist spot is found. They are glued so well together that another chemical substance is needed and produced by the female's skin to allow them to separate. After excavating a cavity, the female lays about 30 eggs. The eggs develop straight into froglets. There is no tadpole stage and no need for external water.

Several snake species have also evolved ways to adapt to life in the Kalahari sand. Burrowing and side winding adders are two of the most venomous that come to mind. Both these small adders live in the sand and use it to their advantage. The burrowing adder is able to retract its lower jaw to enable the flattened fangs to strike sideways at its prey, lizards and rodents, in narrow underground tunnels. Unlike other snakes, it could bite a human being when firmly held behind the head. Many snake handlers have been bitten in this way by this harmless looking fellow. It cannot kill a man but could leave a nasty wound with it is cytotoxic (tissue destroying) venom. Actually, it looks more like a typical blind or worm snake with a small head unlike any other adder. As its name suggests, the side winding adder is adapted to move in soft sand. Its hunting strategy is also remarkable. It will wait in ambush just under the

sand. Only its eyes, which are situated above the head, and the black tip of its tail show above the sand. The snake wiggles its harmless looking tail tip to attract potential prey in a strategy known as caudal luring. Just when the lizard thinks he is safe, the snake will strike. The non-venomous mole snake is also very common in the Kgalagadi Transfrontier Park. It could be up to two metres long with a small head which enables it to hunt moles and rodents in their tunnels under the sand. They are quite aggressive and can deliver a nasty bite which might require stitches.



The biggest bulk of living fauna are the insects. Not all of them are obvious. Some of them are too small to be recognised, some spend their lives hidden in the dense foliage or underground, and others show themselves only in the last stage of their life cycle. A good example is the antlion. The larvae of the antlion insects wait for their prey below the bottom of a conical pit in the sand. As soon as an ant or termite disturbs the trap above the grub-like larva, it tosses up sand to try and trap the prey. If successful and the prey falls to the bottom of the pit, the antlion will grasp it with its powerful claws and drag it beneath the sand. The little predator will simply suck the body juices from the ant

or termite. After the first good summer rain the flying adult antlions emerge in numbers to complete the cycle. Now mature, they look a bit like dragon flies with two pairs of transparent wings.

The most common insect group in the Kalahari, like everywhere else in nature, is the beetle. Fossil records show that they were also the most common insects about 95 million years ago, when the Kalahari basin was slowly filling with sand. Flightless ground dwelling beetle families are in the majority here. Although the tenebrionid beetles (commonly called toktokkie) show some of the best adaptations to life in sand, including the ability to store water, it is the Carabids that are the most common here. Many of these have developed chemical methods of defence. Members of the Anthia genus are large with yellow dots and stripes on their black bodies. To defend themselves, this kind developed in a different way. They squirt formic acid at potential enemies. Several kinds of skinks and lizards are also well represented. One of these, the Kalahari sand lizard, makes use of the Anthia beetle's ability to deter predators chemically. The juveniles have a completely different colour than the well camouflaged yellow and brown adults. They are indeed black with yellow markings, mimicking the colour patterns of the Anthia beetles. Even the way they move, with stiff legs and arched backs, evolved to fool potential predators like the kori bustard or secretary bird.

One very important group of insects in the Kalahari ecosystem has not changed much over the last 100 million years. These are the termites. Fossils dating back to that period show no clear difference in body form from the current species found there. Scientists believe that termite colonies were some of the earliest types of organised communities on earth. In the Kgalagadi Transfrontier Park the harvester termites are particularly abundant. Further

north in the delta and Chobe, the other main group of termites, the fungus growers, comes into its own, as will be seen later in this book. The harvester termite nests are situated quite deep underground to avoid temperature extremes and to preserve moisture. A colony might consist of about twenty widely spaced nests. These are connected by a system of tunnels. Old grasses, with little nutritional value for large grazers, are harvested for their communal food stores in the nests. There the grass is processed by being eaten, partly digested and then fed to others in the form of converted and useful protein. The termites are at the base of the Kalahari food chain. They provide protein for birds and animals alike, big and small. The harvester termites are active at night during the hot summer months. They forage during the day, when the freezing winter nights arrive. Unlike the fungus growing termite species who are totally blind, the harvester termites have well developed eyesight. A hard brown skin around the head protects them from the sun. The strictly nocturnal fungus growers have translucent skins.



Grasses are also a vital part of the Kalahari ecosystem. The seeds are eaten by insects, rodents and birds, while the grazing animals like gemsbok and wildebeest (gnu) are dependent on the leaves and roots. The different grasses in this arid environment have developed extensive root systems that spread widely in their search for moisture. This also helps to stabilise the ever shifting sands. Good grass cover is important to preserve moisture under the sand for many months after good rains. Some of the local grass seeds have chemicals which inhibit germination. This will only happen after enough rainwater has washed it away, preventing any wasteful germination. Many Kalahari plants have developed large tubers in which water is stored under the sand. One of these, the gemsbok bean grows

unhindered in the loose sand and can become massive under the right conditions. One was found that weighed 260 kilograms. It contained 200 litres of water! These bulbous tubers are also rich in protein and are therefore also a very good source of food. The animals as well as the original human inhabitants of the Kalahari, the San (Bushman), all make use of this underground feast of food and water.

The San hunter-gatherers, who have survived in the Kalahari for thousands of years, use more than 100 edible plant species. These are ready to be harvested at different times of the year, ensuring that there is always at least some food on the table. Their favourites include tsamma melons and, interestingly enough, also Kalahari truffles, similar to the delicacy from the pine forests in Europe. Plants and roots also serve as medicine for the Bushmen. They also use plant extracts to prepare animal hides. The root of the eland's bean, for example, helps to make the hides flexible and waterproof.

The most common big tree in the Kalahari and surrounding areas is the camelthorn tree. It is one of Africa's many well-known Acacia tree species. It evolved the remarkable ability to reach subterranean water as deep as thirty metres with its root system. Often a line of dead camelthorns indicates a place where the water table has dropped below the reach of their tap roots. The trees can adapt to temporary dry conditions by withholding water from some of the outside branches. These are sacrificed to give the tree a better chance of survival. A whole variety of birds, mammals and other creatures depend on these trees for survival. Rodents, the famous social weaver birds and the lesser bush baby, to name a few, use the camelthorn to nest and feed in. The trees are named after giraffes, which like to feed on the leaves. In Afrikaans a giraffe is called kameelperd (camel horse).



Several types of owl, from the tiny pearl spotted owlet to the giant eagle owl, use these accommodating trees to roost and breed in. The leaves, flowers and seed pods are a valuable food source. The camelthorn tree flowers and gets fruit before the rain comes. It therefore provides nutrition for herbivores during the driest part of the year. Scientists believe that increasing daylight hours trigger this off, unlike most plants that wait for the first good rains. The smaller but also handsome shepherd's tree also provides food, water and shelter in a harsh environment. It is evergreen. The nutritional value of its leaves is only slightly less than that of the best livestock fodder, lucerne. From there the name, shepherd's tree. Its flowers, like those of the camelthorn, are rich in nectar and the berries are eaten by birds and many others. Even the black backed jackal, normally a meat eater, will often indulge in these sweet fruits after they fall from the trees. Because of its importance, the tree was chosen several times as a motif for postage stamps of the states of southern Africa [5].



Climate, rainfall and game viewing in the Kalahari

Botswana is a summer rainfall region in the centre of Southern Africa. The average amount of precipitation varies between 600 mm in the North East to only 200 mm in the South West of the country. This could vary a lot from year to year, especially in the south. Although some short thunderstorms can be expected from late October, most rain occurs later in summer between late December and March.

The dry season (May to November) is generally better for game viewing in the Chobe and Moremi area, although it could vary from part to part depending on the available permanent water and also on how much rain fell in the previous summer. In the Transfrontier National Park area game viewing is good throughout the year due to the presence of permanent water points along the Auob and Nossob rivers. The same applies to a lesser extent in Mabuasehube although there will be bigger herds during and after some good late summer rain due to the availability of new grass- and tree growth.

Visitors who are also interested in birds, smaller animals and insects will have good viewing opportunities between November and April. This could vary from region to region

and it also depends on the amount of recent rain. After occasional good rains, the Makgadikgadi Pans and surrounding areas can be well worth a visit. Huge numbers of flamingos, pelicans, ducks and waders, among other bird species, could be expected then. The Savuti area in the Chobe National Park also attracts good numbers of birds after good rains, when summer visiting birds of prey, waterfowl and insect eating birds take advantage of termite outbreaks and the abundance of other insects.

One general point to consider is that it will be more comfortable for most visitors to visit Botswana between April/May to October/November. There is then almost no rain and almost no mosquitoes. Game will mainly be concentrated near permanent water. Temperatures are cooler during the day, although it could drop sharply at night, especially in the South West Kalahari.

Visitors who do not mind coping with daytime heat, rain, reptiles and insects, would be rewarded with an abundance of life and luscious landscapes during the wet months. Keep in mind that some roads will also be more tricky to negotiate, while certain parts of Moremi and Chobe might be totally inaccessible.

References:

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- [4] Map Okavango Delta: <http://www.itravelto.com/dnl/map-of-botswana.pdf>
- [5] Stamp: Shepherd's tree (*Boscia albitrunca*) (South Africa) (National Arbor Week) Mi:ZA 1155, Sn:ZA 1077, Yt:ZA 1035, SAC:ZA 1125 (colnect.com)

The original Kalahari people

Until well into the 19th century, the late Stone Age inhabitants of Southern Africa, the Khoisan, lived in complete harmony with their environment. Many sub-groups were already squeezed into the most uninhabitable parts of the sub-continent. This includes the Kalahari. Even here, they managed to find their perfect place in the order of life. Before this, they were exterminated or absorbed by the pastoralist Bantu tribes moving in from the North and the European migrants arriving from the ocean. These civilised people simply referred to the original inhabitants as Bushmen. The coastal hunters and gatherers, the Khoi, were called the Hottentots by the European settlers in the Cape region. The San were not even regarded as human beings. During the middle of the slave era, the Khoisan people were often treated even worse than slaves.

It was for instance acceptable to hunt them down without mercy. Their last stronghold was the southern and central Kalahari. Unfortunately for these nimble little masters of survival, they were already doomed as a people long before then. They were vanishing like mist in the morning sun in front of civilisation. Within a hundred years, they were sandwiched between the same old advancing factions, armed Europeans from the south and the tall and aggressive Bantu tribes from the north.

After submission was forced upon them by these well-armed and modern invaders, they would never be the same again. The light of life dimmed in their ever alert eyes. The spring disappeared from their step. They were tamed and absorbed by different Bantu and European groups. Without them, their environment will also never be the same again. Game reserves and money generated by tourism is putting in a last effort to protect what's left of this fragile

ecosystem. Governments often overrule these efforts with the wave of a hand though. Populations are growing fast and pressure is mounting. Fortunately, their famous rock art is still there for us and our children to admire. Although badly vandalised, some excellent examples are nowadays well protected in various locations in Southern Africa.



Thanks to authors like Herman Bleek and Laurens van der Post, some of their habits and fascinating stories are also recorded. Of all the people from Africa's many tribes, the legends of the San about animals and their origin count among the most charming. What follows here are just a couple of our personal favourite examples. There are many more available in all the usual forms of media and they are highly recommended for older and younger readers.

The hunted and the hunter

The giraffe is feeding on the new leaves of a camelthorn tree in the Kalahari. His flexible tongue is twisting and curling past the small nuisance of many thorns in its way. Every so often the old bull lifts his head but keeps on chewing on a mouth full of leaves, while his big, beautiful eyes scan the landscape far and wide. Any movement will