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Mfezi
Snakes of South Africa Identification

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# Snakes of South Africa Identification



Identifying snakes can be tricky, there are many characteristics you must look at to properly identify snakes of South Africa. We've complied a list of characteristics that will help you identify snakes of South Africa. First, body structure can vary considerably between species and make for a safe and fast way to identify potential dangerous snake such as the puff adder (Bitis arietans); shapes can include long and slender, short and squat, robust, cylindrical or triangular. The shape and size of the snakes head can also help identify the snake, you want to decipher if the head is wider than the neck. The size/length of the snakes are usually expressed in cm or meters for commonality. A snakes colour can vary depending on the location, when they last shed, depending on their age and even their sex. Different species of snakes have different types of scales, snakes of South Africa can have smooth or keeled scales, dorsal scale rows, head scales, ventrals, or subcaudals. The availability of food, water, shelter, existing vegetation and climatic conditions will effect which snakes are in your area. Snakes like to seek out hiding spots for both protection and prey. Snakes have different habits such as the time of day they are active, what is their food source, or if they are arboreal ..etc.

If you are having difficulty identifying the snakes the best action is to leave the snake alone. Don't subject yourself to any interactions with a snake you can't identify. Should you need to contact a professional keep a close eye on the snake, and try to note any of the characteristics mentioned above to better to prepare the experienced snake handler. Do not try to pick up the snake unless you've had a venomous snake handling course.

# The Black Mamba (Dendroaspis polylepis)

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**Dendroaspis Polylepis** 



Black Mambas get their name from the inside of their mouths which are light grey to pitch black. Their true colors vary from light to dark grey, dark brown to an olive color. Venomous snake in the world

next to the King Cobra. Not only are they super long but they are super-fast and can go up to 20km/h for short distances They use their speed for fleeing away from danger, not to attack.

The Black Mamba does not occur in desert areas but are known to be more coastal or bushveld reptiles. They are commonly found in the Southern and Eastern side of South Africa such as Limpopo, the KZN region and Mpumalanga. The preferred habitat is Bushveld, which is a mixture of trees with grass in low laying areas 1500 meters below sea level. They can be found anywhere on the ground, long grassy areas and even up in tree's.

The Black Mamba is known to be shy and will avoid confrontation, however, because they are extremely nervous snake, they can quickly change from a timid to defending when they feel threatened. When threatened they can lift a third of their bodies off the ground, gape their mouth, showing the dark side of their mouth. They will also make a hollow hissing noise, they can also make a small hood to intimidate the threat, but if the threat persists they will strike. They are known for striking multiple times.

The venom is extremely toxic and is one of the most rapid acting venoms in the world. The quantity of venom injected is limited, as mambas have small heads that cannot provide enough room for large venom gland compared to that of the puff adder. The average amount of venom obtained from extracting the venom from the normal adult size snakes is around 80 - 100 mg of dry venom quantity. The venom is rapidly absorbed by the capillary bed of the body and quickly knocks the victim down. When exposed to a lethal amount of BM Venom, a full grown adult human can die within 20 minutes. Typically, the bite will cause paralysis in 45 minutes after the bite, if no first aid is received. First aid for this bite consists of a pneumatic cuff high on the bitten limb and rapid transportation of the victim to a hospital. The venom contains potent neurotoxins which will lead to muscle tremors, excessive salivation, excessive sweating, and pins and needle feelings around the lips with a funny, metallic taste in the mouth. The muscular weakness will rapidly progress toward full paralysis of skeletal – and breathing muscles i.e. the diaphragm and rib cage muscles, followed by death . First, breathing stops and the heart has about 5 minutes until the oxygen runs out and the heart stops. Around 70% of BM bites will be deadly if not treated adequately.

# Thoughts:

Even though they are not endangered, these snakes are still being threatened by the constant move and whims of the human populations. We all need to make a conscious effort to protect these beautiful reptiles and their habitats. To witness a large black mamba on a safari is a sight that will be etched into your mind forever. Although they are very dangerous, they want to avoid confrontations with man, they are not.

# Mike Perry















# Boomslang (Dispholidus typus)

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# Description

A long slender snake, with an average length of 1.5 meters growing to over 2.0 m in length, with a large blunt head that is distinct from the neck. It has a very large eye, which is characteristic. The body has keeled scales in 19 oblique rows at midbody. The colour is variable, with the females normally grey or brown, and the males green with black edging to the scales giving it a barred effect, or black on the dorsum with a yellow spot on each scale and a yellow belly. The juveniles are grey, with a brown head and white jaw, with the eye bright green. It is often stated that green individuals are males and brown individuals are females, but this is not always the case.

# **Dentition**

The maxilla bone carries from 1 to 3 large grooved fangs on the back of the bone. The fangs are situated below the eye of the snake. It is also often stated that this snake can only deliver a bite on a finger because the fangs are situated in the back of the mouth, but this is not the case. A boomslang can deliver a bite to the arm, leg or shoulder. There is considerable movement in the maxilla bone so the fang can be swung forward and almost 90 degrees to the plane of the mouth, and although the fang is positioned under the eye, the mouth has a very large gap, making it relatively easy for the snake to inflict a bite. However these snakes are reluctant to bite.

#### Venom

The venom is haemotoxic and causes internal hemorrhage. Clotting factors II and X are attacked by the venom. This removes fibrinogen from the blood causing the blood to go thin, which then results in a bleeding syndrome. Large patches of ecchymosis will indicate bleeding under the skin. The venom is produced in minute quantities of about 1 – 15 mg. This is the most venomous of the African snakes, with an estimated lethal dose for a man is about 1mg. The venom is slow acting, with death occurring from 24 – 72 hours or even longer after a bite was inflicted. Monovalent antivenom is produced in South Africa for this snake's bite, and is very effective, even days after the bite. Because of the slow acting venom, there would normally be enough time to get to a hospital where proper medical treatment in the form of monovalent Boomslang antivenom is the preferred form of medical treatment. The Boomslang was for many years considered a semi-venomous snake, and thought not to be capable of killing a human. However in 1956 the famous American herpetologist, Karl P. Schmidt of the Chicago Museum of Natural History received a single fang bite from a 75 cm specimen, and died 24 hours after the bite. The deadly nature of this venom was subsequently studied in South Africa and in the early 1960's the monovalent Boomslang antivenom was developed in South Africa.

# Distribution

From the Western Cape along the south coast, along the KZN coast, northwards into Mpumalanga, Gauteng, Limpopo, North West, and Northern Cape. Further north into Mozambique, Botswana,

Namibia and north throughout sub-Sahara Africa. **Habitat** 

The name Boomslang, which is used universally, is Afrikaans for "tree snake". So from this it can be surmised that the Boomslang is a tree living snake. They prefer savanna and open bush to coastal bush. Also found in very sparsely treed areas, like the Highveld of Gauteng, where it occurs along tree fringed streams and rivers. Although the Boomslang hunts and spends a lot of time in trees it will descend to the ground to cross open gaps between trees and will also go underground when the weather is inclement.

#### **Habits**

This snake is active during the day. It avoids human contact and rarely bites, but will demonstrate its displeasure when it is molested by inflating the front part of the body. From this position it may strike out at its aggressor. Because it hunts in trees the warnings of birds will normally alert people to the presence of the snake. The fangs are large, and the gap is considerable, allowing the snake to get its fangs into an aggressor with not too much difficulty, and although venom may not be injected in this instance, as the snake prefers to chew to get the venom into its victim's flesh, the venom is so potent that just a scratch could cause serious symptoms. These snakes bite very rarely, and most of the recorded bites are on snake catchers. It is a fallacy that this snake can only inflict a bite on a finger, because it is back fanged. Boomslang are attracted to human habitations because of trees and water and also people keeping aviary birds, which this snake is partial to, and often gets killed because of its inability to escape through the mesh of the aviary, once a bird has been swallowed by the snake. Boomslang females produce 12 – 20 eggs during the early summer and the eggs would be laid in a tree hollow or down a rodent burrow where they would hatch about 60 days later. The babies look very different from the adults. They are grey with a very large head and emerald green eye. However they will react like an adult inflating the front part of the body when annoyed. Baby Boomslang are about 20 cm long when they hatch.













# Ringkals, Rinkhals (Hemachatus haemachatus)

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## Description

A small to medium size snake usually 90 cm to 120 cm in length, but can reach 1,5m. The snake is closely related to the true cobras, but differs from the true cobras in having keeled dorsal scales, in producing live young and in the maxilla bone only carrying the fangs. In all other respects in acts like a cobra, being able to rear up and spread a hood. This snake is more robust in build, compared to similar size cobras, and a specimen of 1,2m becomes quite bulky. The colour is usually a light grey when young turning darker and becoming black when about 1 meter in length. In certain parts of it distribution it has a light yellow or orange colour with dark brown or black bands. The ventral part is normally dark brown or black with one to three white bands on the throat. The name ringkals is derived from the Dutch "ring hals" which means ringed neck, because of the white bands on the neck. The scales are keeled and in 17-19 rows at midbody.

### Dentition

An elapid snake with fixed front fangs. The fangs are modified with the venom cannel running through the fang and the discharge orifice making a 90 degree bend thus with the exit orifice facing the front, allowing this snake to spray its venom at an attacker's eyes. The front or top of an attacker is sprayed at. This snake has to rear up in order to spray its venom, unlike spitting cobra which can spray venom from the ground without rearing up. The venom which comes from each fang in a jet is soon broken up into many small drops which make it easy for some of this venom to land in the eyes. Venom spraying is used as defense. Venom in the eyes causes instant burning pain, and the victim will be rubbing the eyes to get rid of the pain. While the victim is thus occupied the snake will be escaping into the grass. The effective range of this venom spraying is in the 2 meter range. Venom in the eyes is not life threatening and no antivenom need to be given. Venom in the eyes is normally a benign condition which will not lead to blindness as long as the eyes are rinsed out with clean water and protected from bacterial infection. Bacterial infection of the eyes could lead to permanent blindness.

#### Venom

The venom is both cytotoxic and neurotoxic. The effects are not as potent as those of other cobras, and there are few bites to humans as this snake tends to spit rather than bite. The bite presents as a Painful Progressive Swelling syndrome and the local effects of a bite can be quite severe, and the risk of a finger amputation is quite high if a serious bite is sustained on such an extremity. Neurological effects could also manifests and include general paralysis and impairment of breathing, which can lead to death. Estimated lethal dose is 50-60 mg and the venom glands have a capacity of 80-120 mg, average yield is 100mg. However these snakes do NOT feature in human bites. Dogs get bitten when they attack the snake.

#### Distribution

Found from the Western Cape along the south coast, northwards into KZN, Free State, and Highveld areas of Mpumalanga, Gauteng, North West and also Limpopo. Further north it is only found in the Inyanga district of Zimbabwe.

## Habitat

This snake prefers moist grassland areas that experience cold, frosty winters. It is common on the Highveld, but avoids bushveld areas.

# **Habits**

This snake is active during the day. Starts its day with a period of basking in the sun, usually from about 8 to 9 am, after which it will start moving around in search of prey, which includes frogs, toads, rodents, birds and their eggs, lizards and other snakes. It will raid chicken runs, and is often found near homesteads in search of prey or water. Dogs on the Highveld in the Johannesburg area kill many of these snakes, the dogs normally ending up with red, inflamed eyes from the venom spray of the snake. Occasionally the dogs may end up bitten, and smaller dogs may die before they can be treated by a vet. This snake will usually flee, but if cornered it will face its attacker, rear the front of the body off the ground and spread a broad hood, exposing the black with white bands on the throat. A very impressive sight! From this position it will lung forward and spray its venom at an attacker, the body hitting the ground and at the same time the snake emits a loud hiss. If the threat from an attacker is kept up, the snake may drop to the ground and turn the front of the body over, open the mouth and lay there as if dead. A very effective ploy that has fooled many people as well as dogs to leave it alone. It will later come to life again when there is no threat and move off. This snake should therefore not just be picked up as it may bite if carelessly handled while playing dead.

# Reproduction

The Ringkals is a viviparous meaning it is a live bearing snake. The embryos develop inside the oviduct of the female's body in a clear membrane with no egg shell and develop until they are ready to be born. This can take as long as 5 – 6 months. During the latter half of this gravid period the female does not eat as her bulk makes eating uncomfortable. The female then lays the embryos when they are fully developed usually from late December to late February. As soon as the baby snakes are laid and they see light, they start wiggling and with a sharp egg tooth on the snout break through the clear membrane and move off to find their own place to stay and hunt. They are about 20 cm in length, as thick as a pencil and exact replicas of the a cobra.









