

African Snakebite Institute Herpetological Association

HERP BULLETIN

Number 4
May 2023



Cover - Arnold's Velvet Gecko
(*Homopholis arnoldi*)
from Rooibokkraal, South Africa.
Sake van Wyk

ISSUE 4 MAY 2023

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MEET THE TEAM

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Background - dorsal view of the Geometric Tortoise (*Psammobates geometricus*)



Become a member!

Send an email to support@asiorg.co.za to join the ASIHA. This will give you access to the ASIHA Herp Bulletin a month before its public release. We can also assist members with keeping permits for reptiles in South Africa.

African Snakebite Institute Herpetological Association

HERP BULLETIN



Submissions

We welcome editorial and photographic submissions to the newsletter. If you have any interesting articles about African reptiles or amphibians, please send the article to Snakes@asiorg.co.za



WELCOME

Welcome to the 4th edition of the ASI Herp Bulletin.

As we head towards winter, we will see reduced reptile activity over the next couple of months. Some reptiles such as Puff Adders, Southern African Pythons and the Black Mamba will start breeding in autumn and we expect an increase in activity from now into June. Keep a look out for these snakes competing in male combat or mating.

Frogging activity in the Western Cape should start increasing with the onset of the cold winter rains in that region. With over twenty endemic frog species just around the Cape, the next few months offer the best opportunity to go out and find and photograph

them. You'll have to brave the rain and cold but its all worth it for the grumpy rain frogs (*Breviceps sp.*) or the tiny moss frogs (*Arthroleptella sp.*)

The first meeting of 2022 had a great turn out. Johan Marais talked about herping with some of the great herpetologists across the world. During our last herp meeting at the end of October, Johan discussed his trip to the United States, catching and photographing a large selection of Rattlesnakes as well as Gila Monsters. We'll be posting links to future talks on the Facebook page as well as sending out an email.

With over 300 000 members on our Facebook page Snakes of Southern Africa – we're able to easily reach the next generation of herpetologists and avid enthusiasts. This interaction is something that was not accessible to a number of us growing up – and will surely change the future of Herpetology.

We're also increasing our knowledge on reptile behaviour, mating patterns and distributions with every record posted. It's so great to see the large number of enthusiasts who easily identify the majority of snakes posted on the snake pages.

The aim of the Herp Bulletin is to bridge the gap between science and the general public and we've received some fascinating observations which will be published in future editions. We've published some great observations, trip reports and articles in the last two editions and have had a lot of valuable feedback from our readers.

If you have any interesting observations to share, please send them through to Luke Kemp on snakes@asiorg.co.za. These can be anything from trip reports, behavioural observations, range extensions, feeding and breeding records to photographic tips, husbandry techniques or herp history. We would love to share any and all observations of African herps.



Cape Mountain Rain Frog
(*Breviceps montanus*)

The ASI Herp Bulletin team



HERPING THE KRAAL

Images and text
by [Sake van Wyk](#)

For the last two years I worked as a professional hunter in the Rooibokkraal region of Limpopo. Rooibokkraal is a poorly sampled area in southwestern Limpopo Province in South Africa on the border of Botswana. Wedged between the plateau of the Waterberg and the Crocodile River, which joins the Marico River to form the mighty Limpopo River. The area offers a wide selection of reptile and amphibian species with both lowveld and highveld influences.

During my time as a professional hunter, I spent most of my days walking through the veld and came across a lot of animals, including reptiles. On hot days during the winter months, I would often encounter Western Yellow-bellied Sand snakes, Snouted Cobras and Puff Adders either basking in the morning sun or crossing the roads in the late afternoon



Above - A large Puff Adder (*Bitis arietans*) removed from around the lodge. **Above right** - Lobatse Hinged-back Tortoises (*Kinixys lobatsiana*)



Above - A young Speckled Shield-nose Snake (*Aspidelaps scutatus scutatus*).

Below - Jones' Girdled Lizard (*Cordylus jonesii*) is a common arboreal girdled lizard often found in the firewood in camp.



One morning while guiding, I stumbled across a juvenile Speckled Shield-nose Snake, a largely nocturnal species with a big attitude. Some other reptiles I would encounter often were Jones' Girdled Lizards, usually found in the wood used for campfires, and Speckled Rock Skinks running around the campsite. Other exciting finds included sneaking up on a Black Mamba on a particularly warm day in May whilst it was drinking water at a concrete drinking trough.

By the end of October, when the first rain fell, there was a spike in reptile activity. Some of the first reptiles to appear and move around were the tortoises, feeding on the newly sprouted plants. I also observed the Lobatse Hinged-back Tortoises feeding on the abundance of

millipedes.

By mid-November the big thunderstorms started to roll in and the frog activity began to increase. Most of the species congregate around temporary water holes and puddles that form. The choirs of Sand Frogs, Boettger's Cacos and Banded Rubber Frogs pierce the bushveld nights. If you brave the deafening sound, you'll find an abundance of other amphibian



Top left - Calling Boettger's Caco (*Cacosternum boettgeri*), **Top right** - Banded Rubber Frog (*Phrynomantis bifasciatus*), **Bottom left** - Broad-banded Grass Frog (*Ptychadena mossambica*) in amplexus. **Bottom right** - Ornate Frog (*Hildebrandtia ornata*)

species around the temporary pans including Plain Grass Frogs, Broad-banded Grass Frogs and Eastern Olive Toads. Other burrowing species like the African Bullfrogs and Ornate Frogs started to appear around the start of December. I also recorded some amphibian predation with Tremolo Sand Frog being eaten by an African Bullfrog, as well as a Small Spotted Genet disappearing into the night with an African Bullfrog in its mouth. In the trees over the pans the Southern Foam Nest Frogs had made large foam nests often with Marsh Terrapins waiting underneath, eating the foam and tadpoles that drip into the

water. During my time on the farm, I removed a few reptiles from around the farmhouse and lodge including Puff Adder, Rock Monitor, Snouted Cobra and Mozambique Spitting Cobra. The harmless species of snakes such as





Above left - Southern Foam Nest Frogs (*Chiromantis xerampelina*) creating a nest. **Above right** - Marsh Terrapins (*Pelomedusa subrufa*) were often seen under the nests waiting for foam and tadpoles to drop into the water below.

Spotted Bush Snakes and Brown House Snakes I left alone and informed the guests that they are no threat. Turner's Geckos, Common Dwarf Gecko and the Cape Thick-toed Geckos were a common sight around camp while a resident Arnold's Velvet Gecko stayed in one of the bow hides.

Whilst driving around on the properties and traveling the dirt roads between the different farms, I encountered a lot of reptiles crossing the roads. During the day I often came across Snouted Cobras (sometimes the banded form), Western Yellow-bellied Sand Snakes, Savanna Legless Skinks and Common Flap

-neck Chameleons. Late afternoon and at night I occasionally found Southern African Pythons, Common Purple-glossed Snakes and Bushveld Rain Frogs.

Going to the nearby farm shop one has to cross the Crocodile River and it was common to see Nile Crocodiles and Nile Monitors basking on the banks of the river.

In total I observed 29 species of reptiles and 12 amphibian species. All observations were uploaded onto citizen science databases such as the Animal Demography Unit ReptileMap or iNaturalist and some represented new records for the area.

Below left - Mozambique Spitting Cobra (*Naja mossambica*) found around the lodge.

Below right - Western Yellow-bellied Sand Snake (*Psammophis subtaeniatus*) found in the gardens.



List of Reptiles and amphibians

- Savanna Legless Skink (*Acontias occidentalis*)
Common Purple-glossed Snake (*Amblyodipsas polylepis*)
Black-headed Centipede-eater (*Aparallactus capensis*)
Speckled Shield-nose Snake (*Aspidelaps scutatus scutatus*)
Puff Adder (*Bitis arietans*)
Brown House Snake (*Boaedon capensis*)
Common flap-neck Chameleon (*Chamaeleo dilepis*)
Turner's Gecko (*Chondrodactylus turneri*)
Jones' Girdled Lizard (*Cordylus jonesii*)
Nile Crocodile (*Crocodylus niloticus*)
Black Mamba (*Dendroaspis polylepis*)
Bushveld Lizard (*Heliobolus lugubris*)
Arnold's Velvet Gecko (*Homopholis arnoldi*)
Lobatse Hinged-back Tortoise (*Kinixys lobatsiana*)
Speke's Hinged-back Tortoise (*Kinixys spekii*)
Cape Dwarf Gecko (*Lygodactylus capensis*)
Sundevall's Writhing Skink (*Mochlus sundevallii*)
Snouted Cobra (*Naja annulifera*)
Mozambique Spitting Cobra (*Naja mossambica*)
Cape Thick-toed Gecko (*Pachydactylus capensis*)
Marsh Terrapin (*Pelomedusa subrufa*)
Spotted Bush Snake (*Philothamnus semivariiegatus*)
Two-striped Shovel-snout (*Prosymna bivittata*)
Western Yellow-bellied Sand Snake (*Psammophis subtaeniatus*)
Southern African Python (*Python natalensis*)
Leopard Tortoise (*Stigmochelys pardalis*)
Speckled Rock Skink (*Trachylepis punctatissima*)
Rock Monitor (*Varanus albigularis*)
Nile Monitor (*Varanus niloticus*)
- Bushveld Rain Frog (*Breviceps adspersus adspersus*)
Boettger's Caco (*Cacosternum boettgeri*)
Southern Foam Nest Frog (*Chiromantis xerampelina*)
Ornate Frog (*Hildebrandtia ornata*)
Bubbling Kassina (*Kassina senegalensis*)
Banded Rubber Frog (*Phrynomantis bifasciatus*)
Plain Grass Frog (*Ptychadena anchietae*)
Broad-banded Grass Frog (*Ptychadena mossambica*)
African Bullfrog (*Pyxicephalus edulis*)
Eastern Olive Toad (*Sclerophrys garmani*)
Tremolo Sand frog (*Tomopterna adiastrata*)
Guttural Toad (*Sclerophrys gutturalis*)

ABOUT THE AUTHOR

Sake van Wyk is an experienced reptile enthusiast and photographer. He currently works for ASI and spends as much time as possible in the field, finding and photographing reptiles and amphibians.

Closeup Bushveld Rain Frog
(*Breviceps adspersus*).



Common Flap-necked
Chameleon (*Chamaeleo dilepis*).



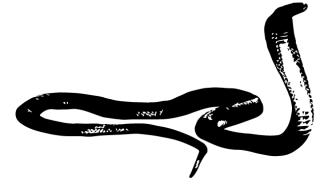
Spotted Bush Snake
(*Philothamnus semivariiegatus*)



Common Purple-glossed Snake
(*Amblyodipsas polylepis*).

Cape Cobra (*Naja nivea*) bite

- Johan Marais



On 6 March 2003 the Danish Ostenfeld family were on holiday, staying in the Grootkolk Wilderness Camp in the Kgalagadi Transfrontier Park. The children were asleep on a mattress on the ground while Lars and Lotte got to bed close to midnight.

At around 01:00 in the morning they heard their 3-year-old son Albert crying. He said: "My leg hurts!" He was very tired, and it was thought that his leg was cramping. They all went back to sleep but soon thereafter they woke up to his sister shouting that a snake had crawled over her. She immediately got into her parents bed. When the lights were switched on the snake was seen disappearing into a corner, moving quickly. It was a yellow snake with black spots – clearly a Cape Cobra (*Naja nivea*).

On closer examination fang punctures as well as the marks of teeth could be seen on Albert's leg. The Ostenfeld family immediately got into their vehicle and drove to Nossob for help – a two-hour drive. An ice pack was placed on the site of the bite prior to their departure.

Upon arrival at the Nossob camp the bite site was very hot and the patient's pulse very high. Albert was crying and thrashing around, and fresh ice packs were placed on the site of the bite. The affected area had been bandaged tightly. The family continued driving to Twee Rivieren, accompanied by some SANParks staff. They arrived at Twee Rivieren at 05:00. An ambulance was summoned from Rietfontein and The Ostenfeld family left the park to meet the ambulance and Mr. Ostenfeld accompanied Albert in the ambulance to Upington.

The snake was found in a room by the Grootkolk rangers the next day, who captured and

released it elsewhere. The rangers confirmed that it was a Cape Cobra.

Albert was hospitalised in Upington after 07:00. There were mild neurological symptoms and no bleeding. He seemed disengaged and was difficult to communicate with. He seemed to stare ahead, and his pupils were small. He was treated with Mefoxin, a broad-spectrum antibiotic and was flown to a private hospital in Cape Town. Upon admission Albert was irritable and there was a necrotic area at the site of the bite. The wound was treated conservatively and until the areas of necrosis was clearly demarcated and the necrotic tissue excised in theatre on 13 March, 6 days after the bite. This process was repeated under general anaesthetic on 15 March.

On 20 March the surgeon performed a split skin graft, and the dressing and staples were removed on 25 March. The wound appeared to be healing satisfactorily and on 31 March the family were given a go-ahead to travel back to Denmark.

Discussion

The Cape Cobra (*Naja nivea*) is largely diurnal and while bites on people asleep in their beds are commonly reported from cobras, such bites are largely inflicted by the Mozambique Spitting Cobra (*Naja mossambica*) and the Zebra Cobra (*Naja nigricincta nigricincta*) in Namibia. There was a documented case of a medical doctor being bitten on an ear by a Cape Cobra in the Kgalagadi during the day while he was asleep. He was rushed to a hospital in Upington but had no signs of envenomation. It is well known that Cape Cobra venom

is potentially neurotoxic, and the onset of symptoms is rapid, especially in children. It also contains some cytotoxic properties, but instances of serious local tissue damage are rare.

The lack of neurotoxic symptoms and signs in this bite is indicative of a so-called dry bite – a bite with no envenomation or, at best, very mild envenomation. This is not uncommon in bites from highly venomous snakes. The pathology that developed could well have been because of the first aid measures that were applied. Soft tissue frostbite is a well-known complication of cryotherapy and in this instance the patient had an ice pack on the site of the bite for more than seven hours, as well as an arterial tourniquet.

My thanks to Dr Colin Tilbury for his advice and comments.



Right - Cape Cobras are quick to bite if cornered or harassed.

ABOUT THE AUTHOR

Johan Marais has undertaken numerous field trips throughout Africa in search of reptiles and amphibians. His photography and knowledge has resulted in several field guides on reptiles and many scientific publications as well as magazine and newspaper articles. As the CEO of the African Snakebite Institute, he frequently deals with doctors and snakebites across Africa.

Below - Young Albert's leg following the Cape Cobra bite.



THE CAPTIVE CARE OF HOUSE SNAKES

Images and text
by Ian Macaskill

For decades House snakes have been one of my favourite indigenous species to keep and to find in the wild, and my guess would be that they have a special place in the hearts of many a South African reptile enthusiast, as well as becoming increasingly popular overseas. A Brown House snake was the first snake I caught in the yard when I was growing up and the first snake my parents allowed me to keep as a pet. They are the spark that ignited my passion for the hobby which is the keeping and breeding of snakes.



Once a much overlooked and rather underappreciated species in the hobby due to their seemingly bland natural coloration, they have risen in popularity over the years with the discovery, breeding and combination of new colour morphs and the potential to produce totally new morphs and combinations.

Getting started

There is still a lot of confusion with regards to the naming of the many House Snake species, so before we go into the details of how to care for them in captivity, let's have a look at the different species commonly kept in the hobby. Although this article will focus mainly on the captive husbandry of *Boaedon*, all the species can be kept in an almost identical manner, with a few tweaks.

House Snakes fall under two different genera; *Boaedon* and *Lamprophis*. To transcribe a full list of all the species and subspecies would be an overwhelming task, and due to ongoing DNA studies and increased field research and discoveries it is a constantly evolving list. I have listed the species most commonly available in the hobby below,

***Boaedon*.**

- Cape House Snake or Brown House Snake (*Boaedon capensis*)
- Black House Snake or African House Snake (*Boaedon fuliginosus*)
- Zambian/Ugandan/Angolan Green House Snake (*Boaedon fradei*)
- Tanzanian Striped House Snake (*Boaedon lineatus*)
- Dotted House Snake (*Boaedon maculatus*)
- Bug Eyed or Namibian House Snake (*Boaedon mentalis*)



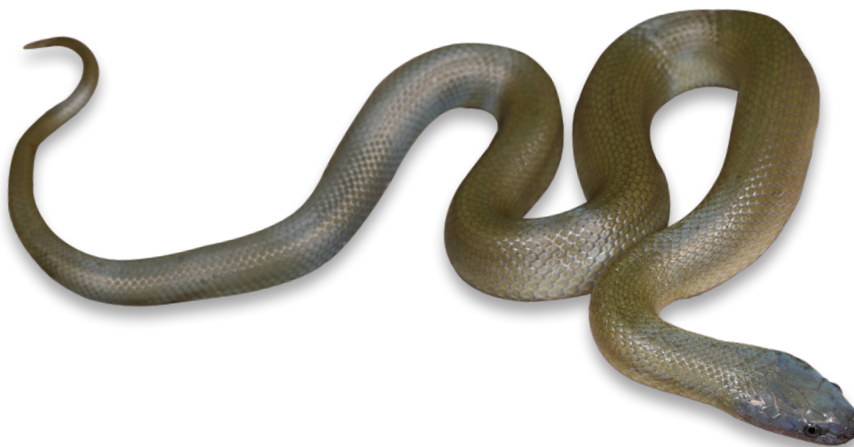
Brown House Snake (*Boaedon capensis*)

Image - Luke kemp

Lamprophis

- Aurora House Snake (*Lamprophis aurora*)
- Spotted House Snake (*Lamprophis guttatus*)

*I also feel that I must give a special mention to the Olive Snake (*Lycodonomorphus inornatus*), as it was formerly classified as *Lamprophis inornatus*, and still commonly referred to as the Olive House Snake in South Africa.



Olive Snake (*Lycodonomorphus inornatus*) previously called the Olive House Snake (*Lamprophis inornatus*).

Image - Luke kemp

Behaviour & Temperament

These are nocturnal snakes, most active at night but may be seen moving about during the day. They can often be found around homesteads as their namesake implies, making use of almost any suitable cover or crevice to hide during the day. Adults are easy to handle and usually docile, even when first caught. Juveniles can sometimes be rather nippy, but usually calm down quickly with regular interaction/handling and a little patience. The one thing you will want to always watch out for though is their voracious feeding response. Many a mouse-scented finger has garnered the unwanted attention of an ever-hungry House Snake.



Above - Hatchling Black House Snake (*Boaedon fuliginosus*)

Choosing a specimen

There are many House Snakes being exported out of West African countries every year and while it may be tempting to purchase these often cheaper wild caught (WC) imports, this is a bad idea. After being collected these animals are typically kept in very poor conditions for lengthy periods, often having feeding, hydration and shedding issues and are way more likely to be carrying a host of internal and external parasites. These could very well put your entire collection at risk and cost you a large amount of money in vet bills. It would be my advice to seek out captive bred (CB) animals from reputable breeders. Captive bred animals are normally well established, and you can be guaranteed an animal that's feeding well, sexed properly and be sure of its genetics and lineage.



Above - Tanzanian Striped House Snake (*Boaedon lineatus*).

Size

House Snakes are sexually dimorphic with the average size of males ranging between 60cm-80cm and females 90cm-120cm.

Lifespan

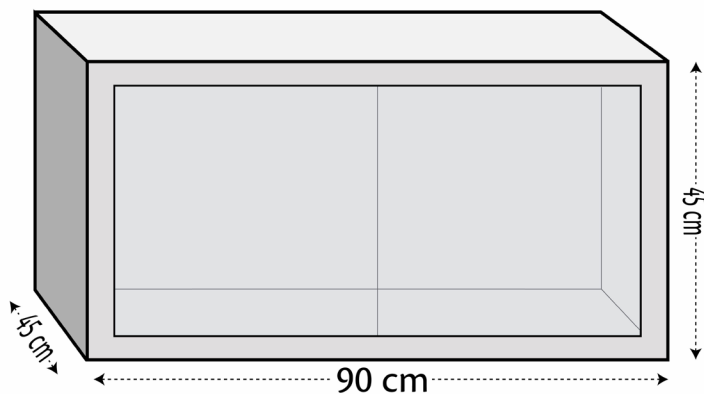
The average lifespan of an African House snake in captivity is between 15 - 20 years. This makes them very attractive to keepers because with good care you'll be able to build a special bond with them over their lifetime.

Below - Zambian Green (*Boaedon fradei*).



Housing

House Snakes are easy to care for and can be kept in the exact same way one would keep most common pet colubrids such as Cornsnakes, Milksnakes and King Snakes. They grow quickly and even thrive in appropriately sized rack systems, commercial vivariums, and I've even seen some very impressive bioactive enclosures. An enclosure dimension of 90x45x45cm (LxWxH) is a good baseline size for an adult House Snake. House Snakes should always be housed separately, this not only reduces problems with feeding and unwanted breeding, but it also makes it easier to keep clean and keep records. It also enables you to quickly pick up if there are any health or husbandry issues and take the appropriate remedial action.



Above - A tank measuring 90x45x45cm is a good baseline size for an adult House Snake.

Temperature and Humidity

While House snakes are fairly tolerant of temperature variations I like to give them a hot spot set to 32c with the cooler side between 20c – 24c. I heat my house snake enclosures with heat cable and mats, while some keepers prefer ceramic heat emitters. These snakes require a high level of humidity within the enclosure, a level of between 30-50% should be adequate. This can be achieved

through light misting of the enclosure and by always having a water bowl in the enclosure. Proper ventilation also plays a big part in your ability to regulate the humidity in the enclosure. A humid hide will also be appreciated by your animal, especially when about to shed.

Very Important!

Heat emitters or lighting should always be covered to prevent the snake coming into direct contact with the emitter or bulb. Even an “energy saver” lightbulb can get hot enough to severely burn a snake.

It's important that any heat you provide is regulated through a thermostat.

Substrate

These snakes can be housed on various substrates doing well on sawdust, coco chips, mulch, bark, and bioactive soils, as well as newspaper and paper towelling. At the end of the day it comes down to the keeper's personal preference and budget. Personally, I prefer something they can burrow through while also maintaining a bit of moisture.

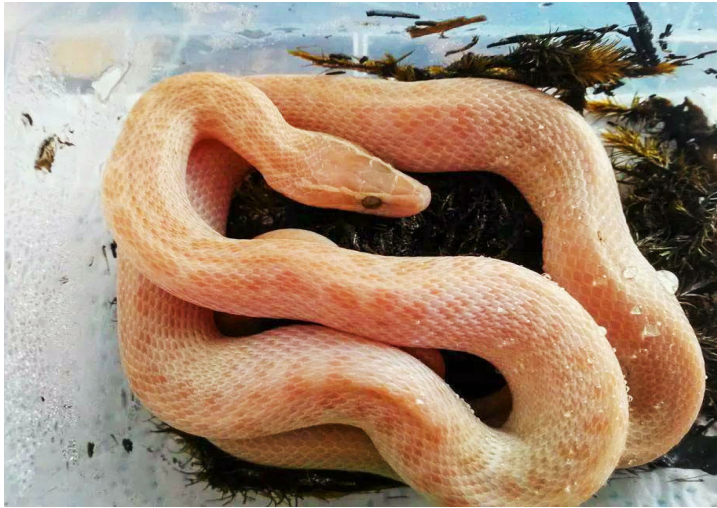
Water

For your snakes to thrive, fresh water should always be available. This should be placed on the cool side of the enclosure in a bowl big enough for the snake to submerge itself in should it require additional moisture or just want to cool off. They will often defecate in their water bowl.

Décor

Once again this comes down to the keepers' personal preferences and budget. Two hides should be the minimum, one on each side of the enclosure. These can be inexpensive cardboard

boxes/tubes that can be thrown away and replaced when necessary, or the more expensive commercial moulded hides available from the pet stores. Driftwood, branches, rocks, cork rounds and foliage are all appreciated by these species, and you'll often find them climbing and exploring their enclosures. Take note of any holes in decorations and how they compare with the body width of your snake to prevent them getting stuck.



Above - Hybino Brown House Snake (*Boaedon capensis*) on some moss.

Cleaning

Cleaning should be done regularly. Excrement should be removed as soon as detected along with any affected substrate in the soiled area. Should the substrate begin to appear old, it must be emptied and replaced. Enclosures, bowls, and hides should be cleaned and sterilized with a diluted disinfectant. I use F10 SC Veterinary Disinfectant, but you can use a diluted chlorhexidine solution or any of the commercially available reptile cleaning products.

Feeding and Diet

Diet is one of the easiest aspects of African House Snake care. These snakes feed primarily on mice or rats which are accepted live or frozen/thawed. Chicks and quails can also be offered to provide some variety to their diet. Hatchling House

Snakes readily take small frozen/thawed pinkie mice offered to them on forceps, sometimes requiring only a little movement to trigger a feeding response. Food should be offered every 4-7 days. Occasionally they will refuse a meal, in which case I leave the prey in overnight.

Sometimes they will take their meal this way, but if this fails, let them be and try again in another 3-4 days. If this fails again, then scenting with lizard or braining the pinkie usually helps.

Hatchling house snakes in the wild feed almost exclusively on small lizards and geckos and frozen geckos can be used to scent pinkies for troublesome feeders. Once they begin to feed they usually don't stop and prey size can be increased as the snake grows in size.

Adult House snakes can be offered adult mice or young rats every 7-10 days. I find they have faster metabolisms than other commonly kept colubrids and quickly digest their meal.

Fat House snakes are not healthy snakes so resist the urge to feed them more than necessary.



Above - Albino Blue Eyed Brown House Snake (*Boaedon capensis*): photo April Linkfield.

Breeding

Sexing

First things first, you'll need to have your snakes accurately sexed if you intend to breed them. This can be done in several ways. With young snakes it is preferential to "pop sex" them. This refers to a method of gently manipulating the tail to confirm the existence of hemipenes. For sub-adults and larger specimens probing is the easiest, most accurate method, however they can also be reliably sexed via tail inspection. This entails visually inspecting the tail length from the cloaca to the tip of the tail. Male snakes will have a considerably longer tail which tapers gently, compared to a female of the same size which has a shorter tail that tapers sharply.

Size and Age

As mentioned earlier snakes should be kept separately unless the intention is to breed them. House snakes are infamous for breeding at a young age, this can lead to future complications and be harmful to the health of your snakes. Males can breed from a very young age, but I prefer them to be at least 18 months old and be in good health. Females should be at least 250g, 2-3 years old, and in good overall health before breeding. Larger snakes will have bigger healthier first clutches.

Cooling

While it's not necessary to cool your house snakes in order for them to breed, I find that they lay healthier, more fertile eggs when cooled properly. House snakes don't do well with constant cold temperatures and cooling them like you would other colubrids could potentially kill them.

They are an African species and African winters have cold nights and mild/warm winter days. I set night-time temperatures to 10c -12c with it warming up during the day to around 25c. This is done for 2-3 months after which I return the temps to normal. They are offered smaller prey items every 2-3 weeks during the cooling off period and have access to fresh water. Once temperatures are back to normal I place the males with the females for mating.

Laying

On average eggs are laid around 60 days after mating, and a nest/lay box should be in the cage well before that. I like to use 2l ice-cream tubs filled with moist sphagnum moss and a hole cut into the lid. The female will usually settle in here a couple of weeks prior to laying and usually go into their pre-lay shed while in the box. Eggs are laid around 10 days after shedding. During this time it is recommended that their water bowls be replaced with a smaller, shallower bowl or be filled with glass pebbles because they are notorious for laying their eggs in their water bowls.



Above - Brown House Snake laying eggs.

Incubation

Once the eggs are laid, they are carefully marked, removed, and placed into incubation tubs. These tubs can be half-filled with a commercial incubation medium like Hatchrite or moist sphagnum moss, vermiculite, perlite or a vermiculite/perlite mixture. I like to use a moist mixture of 50/50 perlite and vermiculite and submerge the bottom ¼ of the eggs in it to stop them from rolling over. My incubator is set at 28c, and the eggs usually hatch at after around 60 days. In more temperate climates I have heard of people successfully incubating them at room temp in the back of a cupboard with the eggs taking upwards of 90 days to hatch. With their variety and the constant development of new morphs, new interest in the humble

House Snake is being shown and the future for this species in the reptile hobby is really looking bright. I'm eager to see what's going to be developed in the future as their popularity grows, and their true potential is unlocked.

ABOUT THE AUTHOR

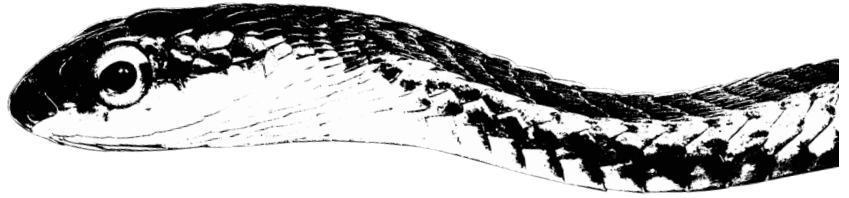
Ian Macaskill is an experienced reptile breeder and enthusiast. He runs **Mother City Serpents** a company that specialises in quality captive-bred House Snakes and other indigenous reptiles. If you are looking at keeping house snakes, you can find more information on Instagram or Facebook - Mother City Serpents.

Below left - clutch of Brown House Snake eggs. **Bottom left** - eggs hatching. **Below right** - hatchling albino Brown House Snakes. **Bottom right** - a variety of Brown House Snake morphs.



Dispholidus typus: Ravenous Dietary Generalist

- Ruan Stander



The Boomslang (Dispholidus typus) is a highly venomous, diurnal and arboreal snake species. It is sexually dichromatic with mature males displaying bright green, yellow or blue colours while females are brown or olive green. Juveniles of both sexes tend to be grey-brown. Such dichromatism is often associated with sexual dimorphism, which is often related to a separation of niches or to differing diet between the sexes to decrease competition between members of the same species. A 2019 study by Smith et al. found that dichromatism in the Boomslang does not correspond to any significant differences in diet or morphology between the sexes or between adults and juveniles.

It is quite interesting to consider how two different species; the Boomslang and the Southern Vine Snake (*Thelotornis capensis*) have adapted to the same arboreal lifestyle sharing several morphological similarities, yet both are dietary generalists. It has been said by Shine *et al.* (1996) that the primary dietary specialisation of the Vine Snake is its total lack of specialisation.

The same is certainly true of the Boomslang. The vast majority of its diet consists of chameleons (36%) and bird chicks (54%), although this is not the result of dietary specialisation but rather of prey availability in its arboreal habitat (Smith et al. 2019).

Dispholidus typus appears to feed on just

about whatever it can find and has been observed descending to the ground to feed on frogs which it spots from treetops with its acute eyesight (pers. obs.). It appears to feed on mammals only very rarely, with the main constituents of the diet being birds (mostly nestlings), bird eggs, chameleons, tree agamas, and occasionally frogs, other snakes and geckos. Cannibalism has been reported in the species as well, albeit rarely.



Below is a table listing the various taxa that are known to be preyed on by *Dispholidus typus*.

Common name	Scientific name	Source
<i>Aves</i>		
Swift	<i>Apus sp</i>	Maritz & Maritz 2020
Hadedda Ibis	<i>Bostrychia hagedash</i>	Maritz & Maritz 2020
Greater Striped Swallow	<i>Cecropis cucullata</i>	Maritz & Maritz 2020
Cape Rockjumper	<i>Chaetops frenatus</i>	Maritz & Maritz 2020
Sunbird	<i>Cinnyris sp</i>	Maritz & Maritz 2020
Speckled Mousebird	<i>Colius striatus</i>	Smith <i>et al.</i> 2019
Cape Robin-Chat	<i>Cossypha caffra</i>	Maritz & Maritz 2020
African Crake	<i>Creccopsis egregia</i>	Haagner & Reynolds 1988
Cardinal Woodpecker	<i>Dendropicos fuscescens</i>	Maritz & Maritz 2020
Fork-tailed Drongo	<i>Dicrurus adsimilis</i>	Pitman 1958
Finch sp.	<i>Fringillidae</i>	Maritz & Maritz 2020
White-throated Swallow	<i>Hirundo albigularis</i>	Maritz & Maritz 2020
Fire Finch	<i>Lagonosticta sp.</i>	Maritz & Maritz 2020
Cape Glossy Starling	<i>Lamprotornis nitens</i>	Maritz & Maritz 2020
Black-collared Barbet	<i>Lybius torquatus</i>	Maritz & Maritz 2020
Cape Longclaw	<i>Macronyx capensis</i>	Maritz & Maritz 2020
White-fronted Bee-Eater	<i>Merops bullockoides</i>	Maritz & Maritz 2020
Cape Wagtail	<i>Motacilla capensis</i>	Maritz & Maritz 2020
African Dusky Flycatcher	<i>Muscicapa adusta</i>	Hockey <i>et al.</i> 2005
Helmeted Guinea fowl	<i>Numida meleagris</i>	Smith <i>et al.</i> 2019
Cape Sparrow	<i>Passer melanurus</i>	Maritz & Maritz 2020
Sociable Weaver	<i>Philetairus socius</i>	Maritz & Maritz 2020
Green Wood Hoopoe	<i>Phoeniculus purpureus</i>	Maritz & Maritz 2020
Village Weaver	<i>Ploceus cucullatus</i>	Collias & Collias 1971
Southern Masked Weaver	<i>Ploceus velatus</i>	Maritz & Maritz 2020
Spectacled Weaver	<i>Ploceus ocularis</i>	Maritz & Maritz 2020
Lesser Masked Weaver	<i>Ploceus intermedius</i>	Pitman 1958
Cape Weaver	<i>Ploceus capensis</i>	Maritz & Maritz 2020
Yellow Weaver	<i>Ploceus subaureus</i>	Maritz & Maritz 2020
Weaver (Eggs)	<i>Ploceus sp.</i>	Jacobsen 1989
Brown-necked Parrot	<i>Poicephalus fuscicollis</i>	Smith <i>et al.</i> 2019
Rüppell's Parrot	<i>Poicephalus rueppellii</i>	Selman <i>et al.</i> 2000
Karoo Prinia	<i>Prinia maculosa</i>	Nalwanga <i>et al.</i> 2004
Dark-capped Bulbul	<i>Pycnonotus tricolor</i>	Maritz & Maritz 2020
Common Scimitarbill	<i>Rhinopomastus cyanomelas</i>	Maritz & Maritz 2020
Cape Canary	<i>Serinus canicollis</i>	Maritz & Maritz 2020
Cape Turtle Dove	<i>Streptopelia capicola</i>	Hockey <i>et al.</i> 2005
Laughing Dove	<i>Streptopelia senegalensis</i>	Maritz & Maritz 2020
Knysna Turaco	<i>Tauraco corythaix</i>	Maritz & Maritz 2020
Brown-crowned Tchagra	<i>Tchagra australis</i>	Maritz & Maritz 2020
Bokmakierie	<i>Telophorus zeylonus</i>	Pitman 1962
Acacia Pied Barbet	<i>Tricholaema leucomelas</i>	Maritz & Maritz 2020
Kurrichane Thrush	<i>Turdus libonyana</i>	Hockey <i>et al.</i> 2005
Emerald-spotted Wood Dove	<i>Turtur chalcospilos</i>	Hockey <i>et al.</i> 2005
Blue Waxbill	<i>Uraeginthus angolensis</i>	Pitman 1962
Cape White-Eye	<i>Zosterops virens</i>	Hockey <i>et al.</i> 2005

Common name	Scientific name	Source
Amphibia		
Bushveld Rain Frog	<i>Breviceps adpersus</i>	Smith <i>et al.</i> 2019
Mozambique Rain Frog	<i>Breviceps mossambicus</i>	Loveridge 1933
Unidentified Toad	<i>Bufo</i> sp.	Smith <i>et al.</i> 2019
Foam-Nest Frog	<i>Chiromantis xerampelina</i>	Maritz & Maritz 2020
Painted Reed Frog	<i>Hyperolius marmoratus</i>	Maritz & Maritz 2020
Tree Frog	<i>Leptopelis</i> sp.	Loveridge 1933
Edible/African Bullfrog	<i>Pyxicephalus edulis</i>	Maritz & Maritz 2020
Clicking Stream Frog	<i>Strongylopus grayii</i>	Maritz & Maritz 2020

Rain Frogs such as this Bushveld Rain Frog have been recorded in the diet of Boomslang.



Insecta

Short-horned Grasshopper	<i>Acrididae</i>	Bruton & Haacke 1980
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Mammalia

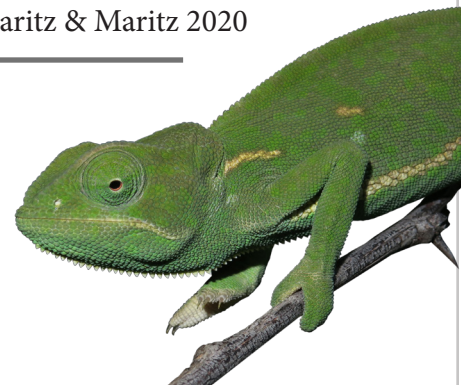
Unidentified bat	<i>Chiroptera</i>	Maritz & Maritz 2020
Unidentified mouse, rat or gerbil	<i>Muridae</i>	Maritz & Maritz 2020

Reptilia

Southern Tree Agama	<i>Acanthocercus atricollis</i>	Maritz & Maritz 2020
Spiny Agama	<i>Agama hispida</i>	Broadley 1966
Many-spotted Snake	<i>Amplorhinus multimaculatus</i>	Maritz & Maritz 2020
Knysna Dwarf Chameleon	<i>Bradypodion damaranum</i>	Maritz & Maritz 2020
Little Karoo Dwarf Chameleon	<i>Bradypodion gutturale</i>	Smith <i>et al.</i> 2019
KwaZulu Dwarf Chameleon	<i>Bradypodion melanocephalum</i>	Maritz & Maritz 2020
Cape Dwarf Chameleon	<i>Bradypodion pumilum</i>	Maritz & Maritz 2020
Eastern Cape Dwarf Chameleon	<i>Bradypodion ventrale</i>	Maritz & Maritz 2020
Flap-neck Chameleon	<i>Chamaeleo dilepis</i>	Maritz & Maritz 2020
Red-lipped/Herald Snake	<i>Crotaphopeltis hotamboeia</i>	Maritz & Maritz 2020
Common Egg-Eater	<i>Dasypeltis scabra</i>	Pienaar 1978
Boomslang	<i>Dispholidus typus</i>	FitzSimons 1962
South African Slug-Eater	<i>Duberria lutrix</i>	Smith <i>et al.</i> 2019
Unidentified gecko	<i>Gekkonidae</i>	Maritz & Maritz 2020
Snouted Cobra	<i>Naja annulifera</i>	Haagner 1990
Olive Sand Snake	<i>Psammophis mossambicus</i>	Pienaar 1978
Unidentified Vine Snake	<i>Thelotornis</i> sp.	Wilson 1965
Meller's Chameleon	<i>Trioceros melleri</i>	Maritz & Maritz 2020



Chameleons form a large portion of the Boomslang diet, with multiple species recorded.



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ABOUT THE AUTHOR

Ruan Stander has had a keen interest in the natural world since childhood. He has conducted herpetological surveys in Limpopo since 2015 and began working as a field guide in 2016. He has been a member of the FitzPatrick Institute of African Ornithology Virtual Museum ReptileMAP expert panel since 2016. Ruan's primary interests include biogeography, ecology and ethology; and he is also an avid photographer.



GORDON SETARO

On 12 June 2022, one day before my birthday, my dear friend Gordon Setaro passed away.

By Johan Marais

Back in late 1979, while working at FitzSimons Snake Park, two odd-looking guys entered the park but stopped a few paces from the ticket office and were having a bit of a conversation. This was rather odd, but they eventually approached me and introduced themselves as. It was Lynn Raw and Gordon Setaro. They often visited the snake park and were somewhat perplexed when they saw an unknown person behind the counter.

Lynn worked at the Institute of Natural Resources, University of Natal, in Pietermaritzburg and had done great work on reptiles and amphibians. This included the descriptions of several species including Setaro's Dwarf Chameleon (*Bradypodion setaroi*) from St Lucia which he had named after Gordon. Gordon was very proud to have

a chameleon named after him, and we often spoke about it.

Gordon grew up at 99 Juniper Street in Overport, Durban and was reptile crazy from a very young age. He qualified as a fitter and turner and was one of the best in the industry, but he had little interest in working behind a lathe - he wanted to be in the field. At one stage he would work nightshift for six months at a time without a day off and then disappear into the field for the following six months looking for reptiles. When applying for a job Gordon had an interesting strategy - companies would interview a few prospective employees and get them to do a speed test - they would give them a job to perform and see how long it took to complete. Gordon would wait until last and then argue that a speed test

is pointless – people may do well at a speed test but that was no reflection on how well they worked. Instead, he would suggest that he works free for a day, and they could then see how well he worked. He always got the job but had two conditions – he wanted to work nightshift from 18:00 – 06:00 and he wanted payment in cash.

His other jobs included making dentures for Nolly Zaloumis, a well-known Durban dentist and wildlife enthusiast. Gordon had no qualifications in this regard but after two weeks on the job he made better dentures than any of the other trained technicians. Another brief but bizarre career was in the circus doing a tightrope act on a one-wheel bicycle. He loved his time in the circus as it toured the country, and his act took only a few minutes twice a day, allowing him the rest of the day in the field flipping rocks looking for reptiles. Gordon was in fact terrified of heights and would never go up onto the tightrope to practise. He quit after his first near-miss when he lost his balance but managed to grab onto the tightrope as he fell. They never used safety nets in those days.

I got to know Gordon well in the early 80s and we spent many days in the field in search of reptiles. His knowledge of reptiles and amphibians was exceptional, and he knew exactly where to find them. He was not an academic and rarely bothered with the literature, but he knew his reptiles and frogs. Our favourite local hangout was Klaarwater near Mariannhill, Durban where we caught many Black Mambas - up to six in a morning, the odd Mozambique Spitting Cobra, Vine Snakes, Dusky-bellied Water Snakes and other odds and ends. St Lucia in northern KwaZulu-Natal was always very productive, especially for frogs but Gordon regularly turned up uncommon reptiles like Purple-glossed



Above - Gordon in Klaarwater, a popular spot to catch Black Mambas.

Snakes, Jan's Shovel-snouted snake, and a variety of burrowing reptiles.

Namaqualand was his favourite collecting ground and he knew exactly where to look for the snakes and lizards of that region. We once went to Spoegrivier in a little 1300 VW Golf, drove down a dirt road, scratched around for reptiles, and ended up stuck in mud for a week. It was freezing cold but there was no shortage of reptiles to photograph. We lived off tinned food and oranges and hugged a campfire every evening, getting into our tent the moment it got too cold.

Below - Gordon in Namaqualand searching for fossorial reptiles and rain frogs.



Around 2004, while living in Umhlanga Rocks and commuting weekly to Johannesburg to run my bookstores, Gordon joined me and moved into a small apartment below our house. During these few years he joined me on various collecting trips and caught reptiles for me to photograph while I was away. A troop of around thirty vervet monkeys would pass through our garden twice a day and Gordon slowly started habituating them. He would put out sunflower seeds for them and while initially they were extremely wary of him, with time they would approach him and take seeds from his hand. Eventually they would get onto his knee and pull seeds from between his thumb and forefinger with their teeth. Each monkey was named (Sergeant, Mary, Sally, Floppy, etc) and he made careful observations of the interaction between the various monkeys, who had babies and who helped raise the young.

Spending time in the field with Gordon was special. His knowledge of our reptiles and amphibians, absolute dedication while in the field as well as his work rate was admirable. He befriended many of my friends, but was an introvert that avoided people and preferred being in the bush. He said that big sporting



Above - Gordon with a young Water Monitor.

events were a good thing as thousands of people attended games and left the bush for us. While living in a flat Gordon never responded to a knock on his door unless it was a secret knock that only close friends knew.

In the last months of his life Gordon's health deteriorated and he was largely bed-ridden for months. I was saddened to hear of his passing. He was a very special person, extremely talented and a brilliant herpetologist who had no interest in the academic side of herpetology but just loved spending time in the field observing reptiles and learning more about their behaviour. While in Namaqualand he once saw a Karoo Sand Snake disappear down a hole and would visit the snake daily, waiting for it to emerge, and following it around while it hunted. He eventually habituated the snake and got it to take a live lizard from his hand.

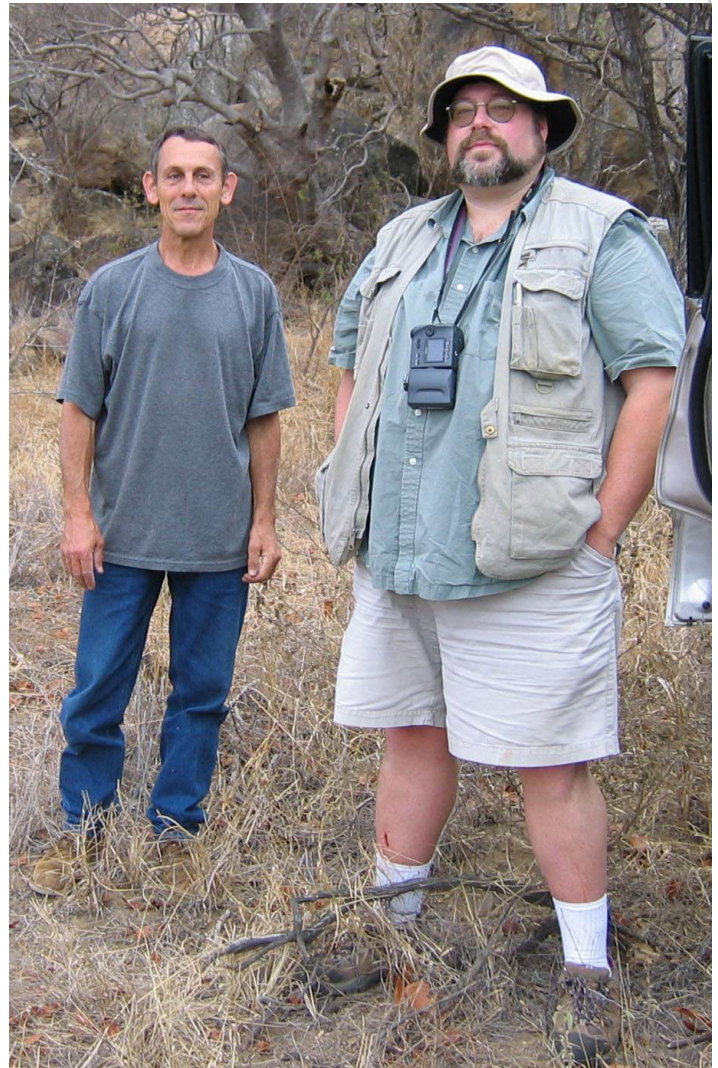
Below - Johan and Gordon in the Tugela Valley on a hot day in the 1980s.



The photograph of Gordon with a Green Mamba (below) was taken in Ballito, KZN. Despite having spent most of his life studying and collecting reptiles and amphibians, he never managed to catch a Green Mamba. While looking for Vine Snakes at our favourite spot I heard the distress calls of birds and sent Gordon to see if they had spotted a snake. He saw a thinnish green snake and, without giving it a second thought, grabbed it at midbody thinking that it was a harmless Eastern Natal Green Snake, but it turned out to be a young Green Mamba. It latched onto his shirt leaving a wet patch of venom but luckily, he was not bitten.

A good friend that will never be forgotten.

Below - Gordon with his first Green Mamba, despite many years searching for them.



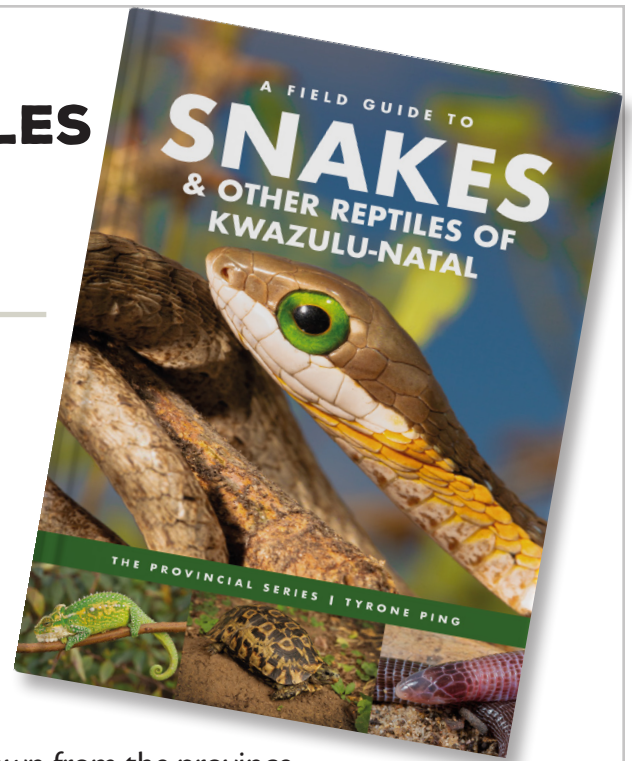
Above - Gordon with prof Aaron Bauer looking for flat geckos in Limpopo.

ABOUT THE AUTHOR

Johan Marais has undertaken numerous field trips throughout Africa in search of reptiles and amphibians. His photography and knowledge has resulted in several field guides on reptiles and many scientific publications as well as magazine and newspaper articles. His work has also resulted in the formation of many friendships with interesting characters that share the reptile obsession.

A FIELD GUIDE TO THE SNAKES AND OTHER REPTILES OF KWAZULU-NATAL

- Tyrone Ping



Well-known for his great images of herps in southern Africa, Tyrone has compiled this beautiful field guide to the reptiles of KwaZulu-Natal. KwaZulu-Natal is blessed with a high abundance and diversity of reptiles, largely due to the varied habitats and warm tropical climate.

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