

African Snakebite Institute Herpetological Association

HERP BULLETIN



Number 3
December 2021



Cover - Banded Rubber Frog
(*Phrynomantis bifasciatus*)
from Hoedspruit, South Africa.
Luke Kemp

ISSUE 3 DECEMBER 2021

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MEET THE TEAM

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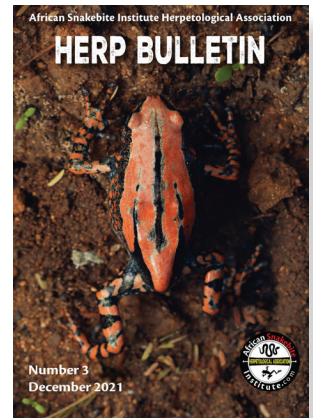


Background - dorsal view of the Geometric Tortoise (*Psammobates geometricus*)



Become a member!

Send an email to Fin@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.



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

We've published some great observations, trip reports and article in the last two editions and have had a lot of valuable feedback from our readers.

Our last herp meeting, with guest speaker Professor Graham Alexander discussing the Biology of Puff Adders, was highly informative and answered a number of questions on the masters of camouflage. We'll be posting the link to the meeting in the next couple of weeks – keep an eye on our social media pages.

With over 220 000 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 general public and we've received some fascinating observations which will be published in future editions.

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.

Our team is spread out around the country in the next few weeks during the December break - if you see us in some remote location, come say Hi! Happy herping!

**The ASI Herp Bulletin
team**



A Common Flap-neck Chameleon
(*Chamaeleo dilepis*)



MEMORIES OF MALAWI

Image Johan Marais

By Andy J Martin

It was my privilege to grow up in Malawi for 11 years from 1956 until late 1967, a truly exciting and formative time in my life. I lived with my family in Limbe near Blantyre in the Shire Highlands of southern Malawi at 1210m above mean sea level (AMSL). While recently revisiting many years of records in folders and notebooks from various parts of the world, I decided that listing and publishing these records for the two periods spent collecting and recording in Malawi may prove useful to the herpetological community and in particular those interested in this magical part of Africa. This record lists 38 species from 744 live specimens collected during a period of almost eight years. This article is a historical record of Malawi snake species and as Rupert Wilkey (author of *Snakes of Malawi. A field guide to the snake species of Malawi*) has said, “snakes species recorded in this report may no longer exist in some locations due to human encroachment and the dramatic change in habitat during the last 50 years”.

Malawi is a landlocked country in south-eastern Africa, its landscape has a substantial variety of habitats, finding itself at the southern end of the Great Rift Valley, a huge depression which sweeps down the country from north to south and contains Lake Malawi and the Shire River valley. The littoral zone along the western and southern lake shores ranges from 8 to 24 km in width, covering about ten percent of the total land area and is littered with lagoons and swamps. Lying just west of Lake Malawi, the central Malawi plateaus are between 760 and 1,370m AMSL and these plateaus cover about three quarters of the total land area. The highland areas rise to 2,600m AMSL and include the Nyika National Park and Viphya plateaus in the north.



Above - Malawi showing major geographical features such as elevations, mountain ranges, savannas, lakes and other topographic details.
Source - Ezilon Maps

Malawi's diverse climate, elevation and soils are reflected in the wide variety of habitats; savanna in the drier lowland areas, miombo or brachystegia woodlands and sparse, open deciduous woodland. Acacia woodlands flourish in isolated, more fertile plateau locations and along the margins of rivers and streams. Dambo's or grass-covered depressions, litter the plateaus whilst savanna with rocky outcrops (kopje's) and evergreen montane forests are found in the highlands along watercourses and on the Mulanje and Zomba massifs. This beautiful landscape is home to sixty-four known species of snake, sixty nine species of lizard, nine chelonians, one crocodylian, two caecilians and seventy five species of frog with many more yet undiscovered.

By age 10 (1960), I was deeply fascinated by the variety of birds, insects and butterflies, lightning-fast striped skinks and plated lizards, wonderful blue headed agamids on the Jacaranda trees and beautiful chameleons. That year I caught my first snake which turned out to be a Herald Snake (*Crotaphopeltis hotamboeia*). I picked it up without restraining it and although agitated, it did not attempt to bite, so I decided to take it home and show my Mum....well she leapt straight up on a chair yelling like a banshee and Albion our employee went an ashen colour before running outside to announce my madness, which caused quite a stir in our Limbe neighbourhood! The little snake struck out defensively with mouth wide open at anyone who came near me but still made no attempt to bite me. I released the snake where I found it and was admonished, but it was too late, the fire of passion for herpetology was lit and has been ever present throughout my life.

Bird watching and collecting butterflies dovetailed nicely with looking for diurnal snake species, and once I had learned to identify

birds by their calls I was led on many occasions by their alarm calls to capture a snake I would have otherwise missed. Collecting was done on a daily ad hoc basis with trips to specific areas on weekends and during school holidays. We had three distinct seasons, a cool dry season from about May to August, a hot dry season from September to mid-December and a hot wet season from mid-December to April which proved the most prolific period for collecting.

In 1962, my parents bought me “*Snakes of Nyasaland*” a brilliant new book by Charles Sweeney, which I absorbed like a sponge. I think they had realised I was not going to stop collecting snakes and ought to know as much as possible about them. Then in 1964 “*Snakes of Southern Africa*” by FitzSimons arrived. These two excellent books, which I still have today, gave me a solid grounding in snake identification and habitats, and from this I developed a system for recording scales and other morphometric parameters which I modified with experience and have continued to use ever since. I also developed techniques for incubating and hatching eggs from many reptile species, including chameleons, lizards and snakes, either when found exposed or laid in captivity. One of the most exciting occurrences was hatching three out of four eggs from the Bearded Pygmy chameleon (*Reippeleon brachyurus*). I had found a female (56mm long) and a male (45mm Long) at the ITC (Burn) Dam in Limbe and after a short while in my care the female laid four eggs. I released the adults back where I found them and incubated the eggs. After 74 days to my surprise and delight, three miniature pygmy chameleons emerged, each one approximately 10-12mm long and after two days, I released them in the same area that I found the parents.

Malawians are generally petrified of snakes and either run or kill them on sight, they are

taught that all snakes are dangerous to avoid being bitten by one of the potentially lethal species which occur there. As my reputation for collecting snakes spread locally I realised I needed a system. Someone would arrive to announce that they had seen a snake in their village and by the time I had run or cycled there the snake had moved on! So I came up with an incentive scheme. On finding a snake, one person would stay and watch it and one would come and get me. If I caught the snake I would pay three pence per foot with a six pence bonus if it was a heavy bodied species, e.g: a puff adder. I had to wash a lot of cars, windows and do odd jobs to augment my pocket money, but the system worked well as at that time, 10 feet (3m) of snake (Two shillings & Six pence) would pay for a 52kg sack of maize flour, which would last a local family a month. On one call out, I cycled 27km down 460m of elevation and was rewarded with a Snouted cobra (*Naja annulifera*), a Puff Adder (*Bitis arietans*) and a Western Yellow-bellied Sand Snake (*Psammophis subtaeniatus*). News spreads quickly in Africa and by 1965 one unafraid Malawian, Desmond Nudi started bringing me snakes from the southern and central Lake Malawi area every three months or so. I also recorded road kills, where they were not too badly damaged for accurate scale counts.



Above - 1962 with Meller's Chameleon (*Trioceros melleri*) and nice haircut too! The jersey I was wearing was bright yellow and black with shades of brown and this beautiful Chameleon matched it perfectly.

Some tables with notes on snakes found.

Note - blue underlined names represent species that have since been found to be more than one species (also shown with * and **). Spec. Ct. represents the number of observations.

*** Snouted Night Adder - Although docile, I took a bite from one of these while removing it from its vivarium. I experienced mild swelling, slightly swollen glands under the arms and mild discomfort.

Table I: List of Species recorded including general location and species count – *Typhlopidae*

Latin Name 1960	Latin Name 2020	English Name	Location	Comments	Spec. Ct.
Typhlopidae – Blind Snakes					
1 <i>Typhlops tettensis</i>	<i>Afrotiphlops obtusus</i>	Shire Burrowing snake	Chikwawa, Mwanza		4

Table II: List of Species recorded including general location and species count – *Leptotyphlopidae*

Latin Name 1960	Latin Name 2020	English Name	Location	Comments	Spec. Ct.
Leptotyphlopidae – Worm and Thread Snakes					
2 <i>Leptotyphlops conjuncta</i>	<i>Leptotyphlops incognitus</i>	Incognito Thread or Worm snake	Chiromo, Mwabvi area		7
3 <i>Leptotyphlops longicauda</i>	<i>Myriopholis longicaudus</i>	Long Tailed Thread or Worm snake	Limbe/Shire Highlands		9

Table III: List of Species recorded including general location and species count – *Pythonidae*

Latin Name 1960	Latin Name 2020	English Name	Location	Comments	Spec. Ct.
Pythonidae – Pythons					
4 <i>Python sebae</i>	<i>Python natalensis</i>	Southern African Python	Lower River, Mulanje, Liwonde to the lake. From neonates to 4.4m	Largest specimen was from Chiromo area.	17

Table IV: List of Species recorded including general location and species count – *Colubridae* – Aglyphous

Latin Name 1960	Latin Name 2020	English Name	Location	Comments	Spec. Ct.
Colubridae – Aglyphous – Fangless, Harmless Snakes					
5 <i>Dasyeltis scabra</i>	<i>Dasyeltis scabra</i>	Common Egg Eating snake	Shire Highlands, Lower River and lake Malawi		5
6 <i>Boaedon fuliginosus</i>	<i>Boaedon capensis</i>	Common House Snake	Widespread up to 1375m AMSL		85
7 <i>Natriciteres olivacea</i>	<i>Natriciteres olivacea</i>	Olive Marsh snake	Lake Malawi and Lower River		5
8 <i>Lycophidion capense</i>	<i>Lycophidion capense capense</i>	Cape Wolf snake	Shire Highlands, Chileka and Mdimba		18
9 <i>Mehelya capensis</i>	<i>Gonionotophis capensis capensis</i>	Southern File snake	Mpingwe and Chiradzulu		4
10 <i>Mehelya nyassae</i>	<i>Gonionotophis nyassae</i>	Nyasa File snake	Phalombe		4
11 <i>Philothamnus semivariiegatus</i>	<i>Philothamnus semivariiegatus</i>	Spotted Bush snake	Shire Highlands to Lower River, Liwonde		11
12 <i>Philothamnus hoplogaster</i>	<i>Philothamnus hoplogaster</i>	Eastern Green snake	Phalombe		19
13 <i>Philothamnus irregularis</i>	<i>Philothamnus angolensis</i>	Angolan Green Water snake	Phalombe		9
14 <i>Prosymna ambigua</i>	<i>Prosymna ambigua</i>	Bocage's Shovel – Snout	Chikwawa and Lower River		3
15 <i>Duberria lutrix</i>	<i>Duberria shirana</i>	Shire Slug Eating snake	Zomba, Mpingwe and Soche		5

Table V: List of Species recorded including general location and species count – *Colubridae & Lamprophidae* - Opistoglyphous

Latin Name 1960	Latin Name 2020	English Name	Location	Comments	Spec. Ct.
Colubridae/ Lamprophidae – Opistoglyphous – Rear or back Fanged Snakes					
16	<i>Crotaphopeltis hotamboeia</i>	Herald snake	Widespread up to 1375m AMSL		112
17	<i>Crotaphopeltis tornieri</i>	Forest White Lipped snake	Nyika Plateau		1
18	<i>Telescopus semiannulatus</i>	Eastern Tiger snake	Limbe and Lower River area		5
19	<i>Hemirhagerrhis nototaenia</i>	Eastern Bark snake	Lower river, Mwanza and Thyolo Tea Estates		3
20	<i>Rhamphiophis oxyrhynchus rostratus</i>	Rufous Beaked snake	Lower River to Shire Highlands		11
21	<i>Psammophis sibilans</i>	Olive Whip snake	Lower River to central lake Malawi		35
22	<i>Psammophylax tritaeniatus</i>	Striped Grass snake	Chinteche area and Lower River		12
23	<i>Psammophis subtaeniatus</i>	Stripe Bellied Sand snake	Lower River, Shire Highlands and the southern and central lake		15
24	<i>Thelotornis kirtlandii</i>	<i>Thelotornis capensis</i> <i>Thelotornis mossambicanus</i>	*Southern Vine snake Eastern Vine snake	Shire Highlands, Lower River, Mulanje and up to Chinteche - There are differences in head colour and markings in specimens from Mulanje and Mwabvi area	67
25	<i>Dispholidus typus</i>	Boomslang	Lower River to Mzuzu and recorded on Nyika at approx. 1820m elevation in 1999	Male, Female and Juvenile colour forms	71
26	<i>Calamelaps unicolor</i>	<i>Amblyodipsas polylepsis polylepsis</i>	Purple Glossed Burrowing snake	Limbe, Mpingwe, Soche, Chiradzulu and Zomba	13
27	<i>Aparallactus capensis</i>	Cape Centipede Eating snake	Bvumbwe and Mpingwe..	Some colouration differences	5
28	<i>Atractaspis bibronii</i>	Bibron's Stiletto snake	Limbe Club and also Mpingwe		5

Table VI: List of Species recorded including general location and species count – *Elapidae* – Proteroglyphous

Latin Name 1960	Latin Name 2020	English Name	Location	Comments	Spec. Ct.	
Elapidae – Proteroglyphous – Cobras and Mambas – Fixed Front Fanged Snakes						
28	<i>Naja nigricollis</i>	<i>Naja nigricollis nigricollis</i> <i>Naja mossambica</i>	**Black Necked Spitting Cobra Mozambique spitting cobra	Lower River, Shire Highlands and around Lake Malawi	Marked differences in colour on some specimens.	57
29	<i>Naja melanoleuca</i>	<i>Naja melanoleuca subfulva</i>	Eastern Forest Cobra	Recorded from Mpingwe and from other montane forest areas in the Shire Highlands	2.3m specimen from Mpingwe	16
30	<i>Dendroaspis polylepsis</i>	<i>Dendroaspis polylepsis</i>	Black Mamba	8 live specimens all in the Lower River and Phalombe/Mulanje	2.9m specimen taken from a village house near Mulanje	10
31	<i>Naja haje</i>	<i>Naja annulifera</i>	Snouted Cobra	Lower River and Phalombe/Mulanje	8 live specimens, quite variable in colour/banding	13
32	<i>Elapsoidea sundevallii</i>	<i>Elapsoidea boulengeri</i>	Zambezi Garter snake	One specimen from Mpingwe		1

Table VII: List of Species recorded including general location and species count – *Viperidae* – Solenoglyphous

Latin Name 1960	Latin Name 2020	English Name	Location	Comments	Spec. Ct.
Viperidae – Solenoglyphous – Vipers – Hinged Front Fanged Snakes					
34 <i>Bitis arietans</i>	<i>Bitis arietans arietans</i>	Puff Adder	Widespread, at one time I had eight of these in my collection. Colour variable	Female from Nyambadwe at 1.45 metres (a monster)	22
35 <i>Causus rhombeatus</i>	<i>Causus rhombeatus</i>	Rhombic Night Adder	Lower River to Southern lake most often at the ITC (Burn) dam Limbe	Often caught during grass cutting activities.	59
36 <i>Causus deflippii</i>	<i>Causus deflippii</i>	***Snouted Night Adder	Shire Highlands		3
37 <i>Vipera superciliaris</i>	<i>Proatheris superciliaris</i>	Lowland Viper	Location Lake Chilwa	1966	1
38 <i>Bitis gabonica</i>	<i>Bitis gabonica gabonica</i>	Eastern Gaboon Viper	Mzuzu (on the way to the lake) and Viphya plateau	October 1967	2

The following are some of the rarer recorded observations.

Tornier's Cat Snake (*Crotaphopeltis tornieri*) 1999

Location - This is the first record of this species on Nyika Plateau and first record south of the Misuku Mountains in Northern Malawi.

Sex - Female

Length - 35cm

Dorsal MB – 17, Ventrals – 169, Anal entire, Paired Subcaudals – 51

Upper Labs – 8, 3,4 & 5 touching eye, Lower Labs – 10, Loreal – present, Post Occ – 2, Pre Occ – 1, Temporals 1 + 2

Eye Deep Yellow/Orange with vertically elliptic pupil

Location – Vitumbi Area: elevation 1905 m. 10° 49'08"S, 33° 56' 05"E.

This is an area of Miombo or Brachystegia spectformis woodland, with a low, open canopy 3-5 m high and with grass-covered forest floor.

Lowland Swamp Viper (*Proatheris superciliaris*) - 1966

Location - Southern end of Lake Chilwa. At that time thought to be the 6th or 7th record for Malawi. Specimen was 73cm long and collected swimming in the lake near reeds from a dugout. This snake was a female and consumed frogs while in captivity. I had intended to release her after a couple of months of observation but

she died and was preserved. She had a huge parasite burden and was probably at the end of her natural lifespan. An American who's name escapes me, who was associated with the Biological Association of Malawi at that time, purchased my preserved collection in 1967 prior to my departure to the UK.



Above - The rarely seen Lowland Swamp Viper (*Proatheris superciliaris*) - Image Johan Marais.

Gaboon Viper (*Bitis gabonica*) – I have observed two of these stunning vipers, both during a trip in October 1967. The first was a large dead female at 1.36m approx. location 11° 31' 23" S, 34° 05' 10.1" E going up from Nkata Bay to Mzuzu in a lightly forested area at approx. 900m AMSL. The snake had been killed by a panga, in a sloping field on the edge of lightly wooded mixed Brachystegia. The

second, also October 1967 was a beautifully marked male at 0.9m long, buried in some leaf litter in the montane forested slopes west north west of Luwawa forest lodge, Viphya Plateau, approx. location 12° 05' 56.4" E, 33° 41' 23.9" at about 1600m. I would have collected him but had nothing to keep him in, so after recording some measurements he was returned to the forest. I imagine this environment has changed substantially and I do not know if they are still found anywhere near those locations.

Much of the Shire Highlands was still naturally afforested during this period. For example, Mpingwe, Soche, Chiradzulu, Zomba and Mulange had large vibrant strips of montane forest bordering all the larger water courses, providing many different habitats and micro habitats for reptiles and amphibians. Recent photographs sadly show these habitats have all but disappeared as the hillsides have been denuded of trees for firewood. The population of Malawi was around 4.3 million in 1967, whereas today it is approximately 19.5 million with substantially more pressure on natural resources. A similar state of balance existed on the Viphya and north towards Mzuzu and Nyika. I noticed during our Nyika expedition in 1999, just how many of these habitats/ micro habitats had been diminished or sadly disappeared completely.



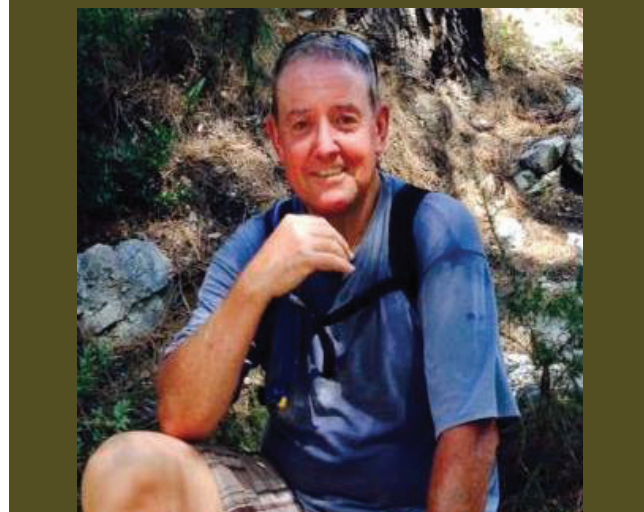
Above - The majestic Mulanje Mountain.
Source - Britannia.com

Acknowledgements

My thanks to my parents for allowing me the freedom to pursue my passion – little did they know! My friend Kent Pedder who often accompanied me when collecting, to Desmond Nudi for his interest and commitment to bringing me snakes from the central region and to all my Malawian friends who helped make this collecting and recording effort. They say that Malawi is the “Warm Heart of Africa” and for me it was Malawians that made it so.

ABOUT THE AUTHOR

Andy Martin has been involved in herpetology for the past sixty years and has a deep passion and interest in practical ecology, conservation and biogeography. He was raised in Malawi, south eastern Africa, where he observed, collected, recorded, bred and released many species of reptile and amphibian over an eight year period. Intensive field study was also undertaken in West Africa, Borneo and Indonesia. Business took him to Scotland in 1986 where study became focused on programmes for captive breeding and education. He is currently writing up publishable data from records and studies where useful to the herpetological community.

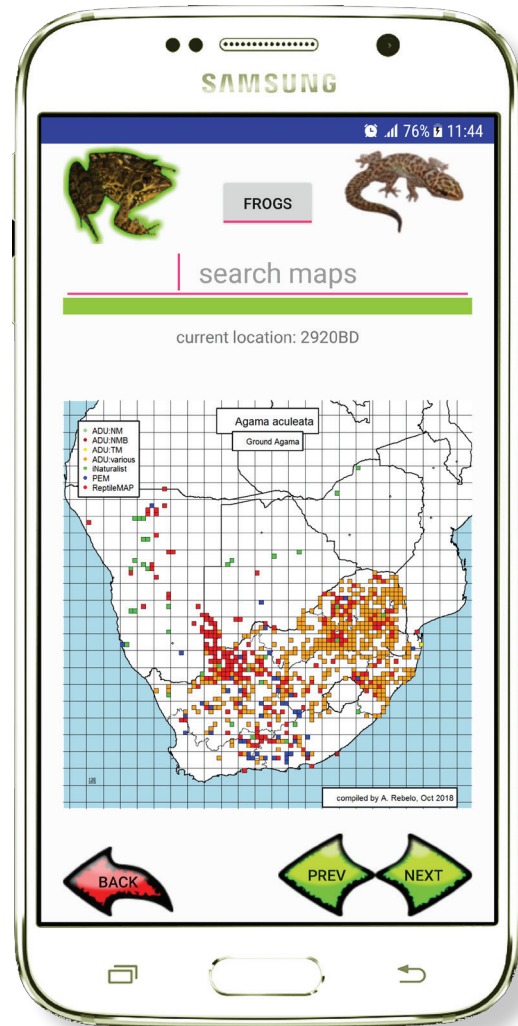


HerpDistributionSA

by Alexander Rebelo

During the 2018 BioGaps sampling in the Karoo with Luke Kemp and Werner Conradie we would often encounter interesting herp specimens in the field. Not being too familiar with herp distribution in the area we would occasionally look up a species we had collected and to our surprise find that it represented a minor range extension. At the time we had a PDF copy of the *Atlas and Red List of the Reptiles of Southern Africa, Lesotho and Swaziland* (Bates et al. 2014) on our phones, though it was a bit out of date and trying to find your current position on the map was always challenging in the blank space of the Karoo. However the PDF did allow us to check the distribution in remote places without having to carry a book or have an internet connection. During the long hours in the car we discussed species distribution, the roles of citizen science and museum records and in my spare time I began making maps and working on an application that I would find useful in the field.

HerpDistributionSA is a cellphone app (Android only) which based on your location, will look up which species occur in your general area and provide distribution maps of all reptiles and amphibians recorded in this location. You can choose to look up species within your current Degree Square (DS: 111x111 km) or Quarter Degree Square (QDS: 30x30 km) location, alternatively you can specify another location other than your own, anywhere in southern Africa. Clicking on a species will open up its map, or you can



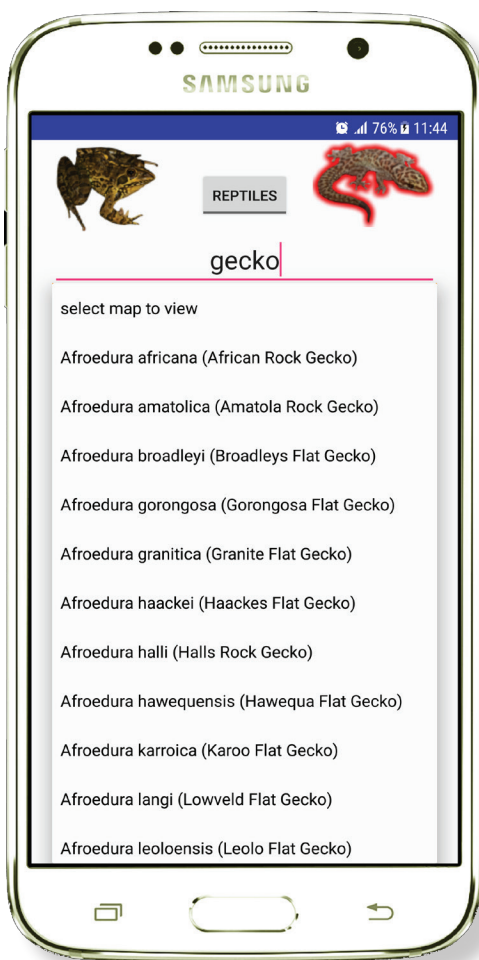
Above - An example of a species distribution map showing all QDS with records of the species across southern Africa.

scroll through and search the species maps separately. Maps show colour-coded QDS for each institution from whom the data was sourced. All components are included in the installation file and the app requires no internet connection to run.

Once a year data is requested from select museums (eg. PE Museum, McGregor Museum), citizen science platforms (FrogMAP, ReptileMAP, iNaturalist), the ADU's (now Biodiversity and Development Institute) shareable records and various literature records. These records are then collated into a unified and current taxonomic scheme and used to update the maps and the data in the application. Data is not cleaned or discarded. In future I would like to include all museums which have data to contribute.

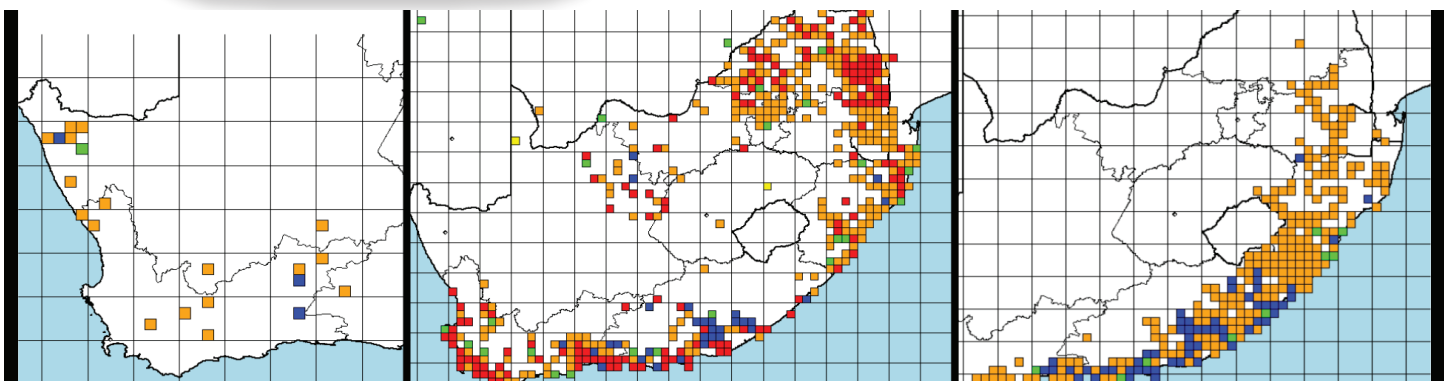


Above - A list of species for your locality. You can click on any species to obtain the distribution map.



Left - the search function is easy to use and gives one a drop-down list of species in the group or suggestions of what you're looking for.

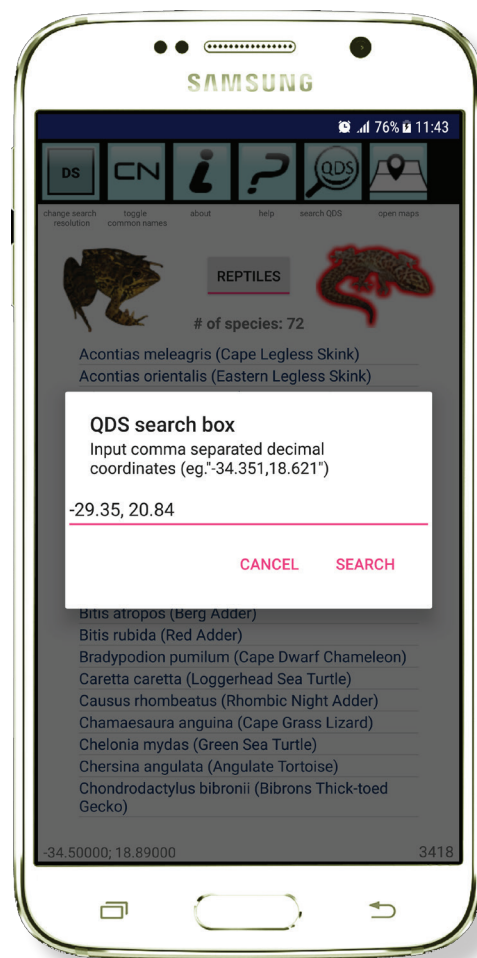
A link to download the app can be found on the facebook page Herp Distribution SA. Additionally you can email snakes@asiorg.co.za and we'll send you a link to the google drive folder.



What is the purpose:

1. A convenient app for use in the field by professional or amateur herpetologists which can be used to confirm which species may be present in the area. If you find yourself herping somewhere new you might be interested to know what you may encounter. Alternatively, if you find something you suspect is a range extension you can easily check up-to-date distribution maps while the specimen is still in hand. This means you can then record additional information and take photographs and/or samples.

2. Bring distribution data under the scrutiny of more people. Many never see museum distribution data before it has been sanitised for the inclusion in an atlas. However, museums are often understaffed and the databases are not always kept current. Sometimes specimens are added and nobody checks the identification and data entry a second time. As a result we get erroneous distribution data either from species misidentification, incorrect locations, georeferencing errors, or simple typos. Citizen science suffers these exact same problems, although they can be corrected more easily. We encourage users to report or follow-up on unusual distribution records with the source institutions. By doing this we can clean up our regional distribution data, which feeds into atlases, red list assessments, field guides and scientific publications.



Above - you can easily search gps coordinates to get a species list for records from that area.

ABOUT THE AUTHOR

Alex Rebelo is a reptile and amphibian specialist currently working for Enviro-insight in Pretoria. He does species and environmental impact assessments across Africa where he documents the rich herpetofauna. Alex has a B.sc Masters degree through Stellenbosch University and worked on the Pyxicephalidae family of frogs. He is a big supporter of Citizen Science projects and is a massive contributor to INaturalist. His programming abilities allow him to create cool projects like HerpDistributionSA.



CHAMELEONS IN WINTER

Johan Marais

Going through popular publications such as *The lizards of South Africa* (Fitzsimons, 1943), *The Reptiles and Amphibians of Southern Africa* (Rose, 1962), *The Reptile Fauna of the Kruger National Park* (De V. Pienaar (1978), *Ons Reptiele* (Jacobsen 1985), *Field Guide to Snakes and other Reptiles of Southern Africa* (Branch 1989), *Chameleons of Southern Africa* (Tolley and Burger 2007) and *A Guide to Reptiles of Southern Africa* (Alexander and Marais 2007) there seems to be no reference to chameleons hibernating.

Broadley (1971) mentions Marshall's Pygmy Chameleon (*Rhampholeon marshalli*) hiding in the ground in winter and Measey *et al.* (2014) report the same for Midlands Dwarf Chameleon (*Bradypodion thamnobates*). Böhme (1981) reported the same for the Common Chameleon (*Chamaeleo chamaeleon*). Jordaan *et al.* (2018) described a Common Flap-neck Chameleon (*Chamaeleo dilepis*) taking refugia under a rock mid-winter in KwaZulu-Natal.

In the encyclopaedic *Chameleons of Africa* (Tilbury, 2018) hibernation in chameleons is discussed in a short paragraph. The author mentions reports of chameleons being found in holes in trees, rocks crevices, disused rodent burrows, under stones, bark and farm sacking in winter. There is also mention of a Common Flap-neck Chameleon (*Chamaeleo dilepis*) aestivating in a deserted weaver nest. Otherwise, they may just perch in a single spot for the duration of cold conditions.

On 17 July 2009 at 11:00, while conducting a reptile and amphibian survey of Koanaka Hills, Western Botswana, with Patrick Lewis from Sam Houston State University in Texas, USA, we cleared some undergrowth under trees and found a Common Flap-neck Chameleon (*C. dilepis*) hibernating in a coiled-up position, lying on its side. The air temperature was 20 degrees Centigrade and the specific spot where the chameleon was found was in shade for the rest of the day.

The previous year, on 20 June 2008, I spotted an adult Common Flap-neck Chameleon (*C. dilepis*) about 4 m up a tree at 21:30. It was well concealed in leaves and was bright green in colour. It was a chilly day with a maximum temperature of 18 degrees C.

In 2019 a young female Common Flap-neck Chameleon (*C. dilepis*) spent most of winter in the same position in a small shrub that had lost most of its leaves in a garden in Garsfontein, Pretoria East. The chameleon turned light brown in colour and matched the vegetation of the shrub.



On 30 August 2021 the KwaZulu-Natal Midlands experienced a particularly cold spell with night temperatures dropping to -7 C degrees and wind gusting at around 40 knots. At around 07:00 the following morning twenty adult *Bradypodion spp.*, the so-called Emerald Dwarf Chameleon, were found lying in the snow at a local campsite appearing to be frozen stiff. Some of the females were visibly gravid and when bumped against a glass window sounded like an ice block being tapped. All were placed in the sun on a windowsill and within an hour two of them started moving slowly. Over the next few hours they all defrosted and were released back into the trees. These chameleons were clearly spending the winter perched in the 3-6m high trees around the chalets.



Above - cold chameleons found lying on the ground after freezing temperatures the night before.

Left - a young Common Flap-necked Chameleon in winter in Pretoria.

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References

Alexander, G., and J. Marais. 2007. A Guide to Reptiles of Southern Africa. Struik Publishers. 408 pp.

Branch, B. 1998. Field Guide to Snakes and other Reptiles of Southern Africa. Struik Publishers. 399 pp.

Broadley, D.G. 1971. A field study of the Dwarf Chameleon *Rhampholeon marshalli* in the Bunga Forest National Park, Rhodesia: objectives and methods. *The Journal of the Herpetological Association of Africa* 8: 9-11.

Fitzsimons, V.F. 1943. The lizards of South Africa. *Memoirs of the Transvaal Museum* No. 1. 528 pp.

Jacobsen, N. 1985. *Ons Reptiele*. CUM Boeke. 208 pp.

Jordaan, P.R., Els, P.U., Woolcock, A.B. 2018. *Chamaeleo dilepis* (Leach, 1819) Flap-neck chameleon TORPOR REFUGIA. *African Herp News* (68) 39-41

Measy, G.J., A. Raselimanana, and A. Herrel. 2014. Ecology and life history of chameleons. Pp. 85-113 in: Tolley, K. A., and A. Herrel (eds). *The Biology of Chameleons*. Berkely University of California Press.

Pienaar, U. DE. V. 1978. *The Reptile Fauna of the Kruger National Park*. National Parks Board. 222 pp.

Prötzel, D., K. Glaw, J. Forster and F. Glaw. 2016. Hibernation in tropical Madagascar? Unusual roosting sites of chameleons of the genus *Calumma* (Squamata. Chamaeleonidae). *SPIXIANA* Vol. 39, 2; p. 272.

Rose, W. 1962. *The Reptiles and Amphibians of Southern Africa*. Maskew Millar. 494 pp.

Tilbury, C. 2018. *Chameleons of Africa*. Chimaira. 643 pp.

Tolley, K., and M. Burger. 2007. *Chameleons of Southern Africa*. Struik Publishers. 100 pp.



Above - One of the dwarf chameleons just after being found lying motionless under the tree.

Below - the same chameleon after lying in the sun for a while slowly starting to heat up and move. Photos by Donovan Carstens.

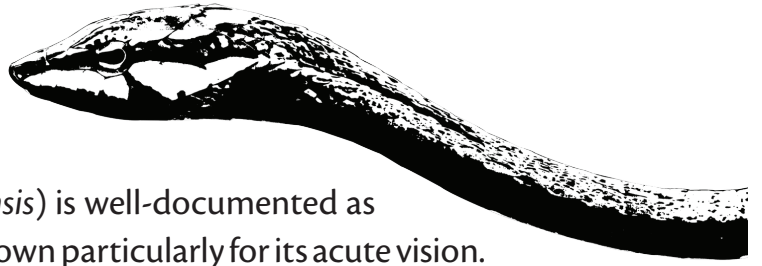


ABOUT THE AUTHOR

Johan Marais has undertaken numerous field trips throughout Africa in search of reptiles and amphibians. His photography and knowledge has resulted in several fieldguides on reptiles and many scientific publications as well as magazine and newspaper articles.

Crepuscular and Nocturnal Activity in the Southern Vine Snake (*Thelotornis capensis*)

- Ruan Stander



The Southern Vine Snake (*Thelotornis capensis*) is well-documented as being a diurnal and arboreal snake species, known particularly for its acute vision.

Despite being an arboreal snake, it is in fact frequently seen in terrestrial settings. A 1996 study by Shine *et al.* revealed something rather surprising regarding the diet and feeding habits of this species. It was found that adult snakes gradually shifted onto a diet that included a significantly higher proportion (around 27%) of terrestrial prey items than that of the juveniles. The study also brought to light the fact that *T. capensis* is an incredibly opportunistic feeder to the extent that, “the primary trophic specialization of this taxon is actually a lack of specialization” (Shine *et al.* 1996).

Vine Snakes are known for dashing out of trees and shrubs and crossing open ground to seize terrestrial prey animals such as agamids and lacertids - with amphibians being a particular favourite (e.g. iNaturalist, 2012). They will also ambush terrestrial prey species from perches up to 1.5m from the ground. In addition to primarily arboreal and terrestrial species being consumed, intermediate species such as Striped Skink (*Trachylepis striata*), Rainbow Skink (*T. margaritifera*) and Eastern Coastal Skink (*T. depressa*) are also frequently included in the diet (Shine *et al.*, 1996 and FitzPatrick Institute of African Ornithology, 2017).

According to Shine *et al.* (1996), between Southern Vine Snake (*T. c. capensis*), Oates Vine Snake (*T. c. oatesii*) and Forest Vine Snake (*T. kirtlandii*), some 25 terrestrial species are known from the diet. What comes as a surprise is that about half of these (12 species) are strictly terrestrial and nocturnal frog species, such as Squeakers (*Arthroleptis*), Rain Frogs (*Breviceps*), Puddle Frogs (*Phrynobatrachus*)

and Grass Frogs (*Ptychadena*). With their keen eyesight Vine Snakes may in fact capture some of these in the day, however the high frequency at which these frogs appear in the diet makes it unlikely that all are captured in the daytime.

There are at least two documented cases of Southern Vine Snake feeding on Rainfrogs (*Breviceps sp.*) at night (Luke Kemp, pers. Comm., [August 2021]) and Spawls and Branch (2020) also mention that Southern Vine Snakes have been known to feed on amphibians at night.

Over the course of seven years between 2015-2021 several nocturnal surveys conducted near Polokwane in the Limpopo Province of South Africa produced around 15 road-killed *T. c. capensis*. Of these, three were juveniles while the others were all adult snakes. What is noteworthy about these records is that all of them except two were most likely active after dusk. They were found on a stretch of road that was only surveyed after dusk, while all except

two were only found after travelling past the same point for a second time, indicating that they must have been active in the time that had lapsed since first passing the respective points.

On 13 January 2021, an adult Southern Vine Snake was found lying on a tar road at 19:25, 30 minutes after sunset. Typically, by this time any diurnal species would have already assumed its perch or taken shelter for the night. The nearest tree was roughly 200m away and the snake was motionless in the road. Once approached, it darted into the grass at the road verge and slowly moved through the grass. After a few minutes it settled with its head at the edge of the grass, facing the road. Most of the above records were also collected on nights where rain had fallen, which ensured a peak in amphibian activity.

The aforementioned records of Southern Vine Snakes, along with its known habit of feeding in terrestrial settings, and in combination with the high proportion of terrestrial, nocturnal frogs reported in its diet, would lead to the postulation that Vine Snakes spend significantly more time hunting on the ground at night, than previously thought.

Acknowledgements

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References

FitzPatrick Institute of African Ornithology. 2017. Virtual Museum ReptileMAP Record 162608. <http://vmus.adu.org.za/?vm=ReptileMAP-162608>. [Date Accessed: 11 August 2021]

iNaturalist. 2012. *Thelotornis capensis* subsp. *capensis* (Smith, 1849) observed in South Africa by Wynand Uys (licensed under <http://creativecommons.org/licenses/by/4.0/>). <https://www.inaturalist.org/observations/10849616>. [Date Accessed: 11 August 2021]

Shine, R., Harlow, P.S., Branch, W.R., & Webb, J.K. 1996. Life on the Lowest Branch: Sexual Dimorphism, Diet, and Reproductive Biology of an African Twig Snake, *Thelotornis capensis* (Serpentes, Colubridae). *Copeia* 1996(2):290-299

Spawls, S. & Branch, W.R. 2020. *The Dangerous Snakes of Africa*. 2nd ed. London: Bloomsbury

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.



Southern Vine Snake active 30 minutes after sunset, Limpopo Province, South Africa.



Left to right - The late Bill Branch, the late Wulf Haacke, Johan Marais, the late Donald Broadley and Prof. Aaron Bauer.

WULF DIETRICH HAACKE

15 DECEMBER 1936 – 28 JUNE 2021

By Johan Marais

In January 1980 I joined Transvaal Snake Park (TSP) after a six month stint at Fitzsimon's Snake Park in Durban working for Fritz Muller. At the time TSP was one of the finest snake parks in the world and the new Terraquarium had only been open for a few months.

I was like a kid in a candy store – rows and rows of enclosures with amazing reptiles and amphibians, most of them species I had barely heard of. And well-known herpetologists like Bill Branch, Niels Jacobsen and John Visser visiting from time to time.

Soon after joining Transvaal Snake Park, Rod Patterson drove us to Pretoria to see Oom Wessels at Transvaal Nature Conservation. He was in charge of permits and the province had

just passed new laws declaring all reptiles and amphibians protected in the old Transvaal. From there we drove to Transvaal Museum (now Ditsong National Museum) where I met Wulf Haacke and his able assistant Loomi Wessels.

Wulf sat behind a large, crowded desk with glass fish tanks along the one side of his office where he housed some dwarf adders and a few geckos. He was a formidable man and glared at me over his glasses. It was a bit like a visit to the school principal. Many visits followed over the years and I got to know Wulf well.

He was born in Namibia to German parents who had come out to the old South West Africa to find a new life. Wulf was raised

there and spent the first twenty years of his life in Namibia, his first job was assistant mineralogist at Tsumeb mine. He moved to South Africa in 1957 to do a BSc degree at the University of Pretoria. He initially worked for the Department of Agriculture- controlling locusts but joined Transvaal Museum in 1961 as Head of the Department, Lower Vertebrates (later named the Department of Herpetology), a position he held until his retirement in 2002.

Wulf worked under Dr Vivian Fitzsimons, an incredible man who he greatly respected. When talking about his days with Dr Fitzsimons, Wulf always became quite emotional often unable to hold back the tears. While he was at the museum he did his masters degree on burrowing geckos of Southern Africa. His first loves were the geckos and small adders of Namibia and Wulf authored over 80 scientific articles and numerous popular articles. He presented papers at 22 national and international symposia and described 13 species of African reptiles and amphibians including the Desert Mountain Adder (*Bitis xeropaga*). His last description was the Damara Tiger Snake (*Telescopus finkeldeyi*) in 2013.

He was an avid reptile photographer and always entered the Agfa Wildlife Photographic competition which he won on several occasions.

After his first stroke Wulf had difficulty walking, his speech was somewhat impaired, and they moved into a retirement village near Menlyn Shopping Center in Pretoria East. At that stage he had to get rid of his tortoises and he was devastated. "It was the end", he said to me.

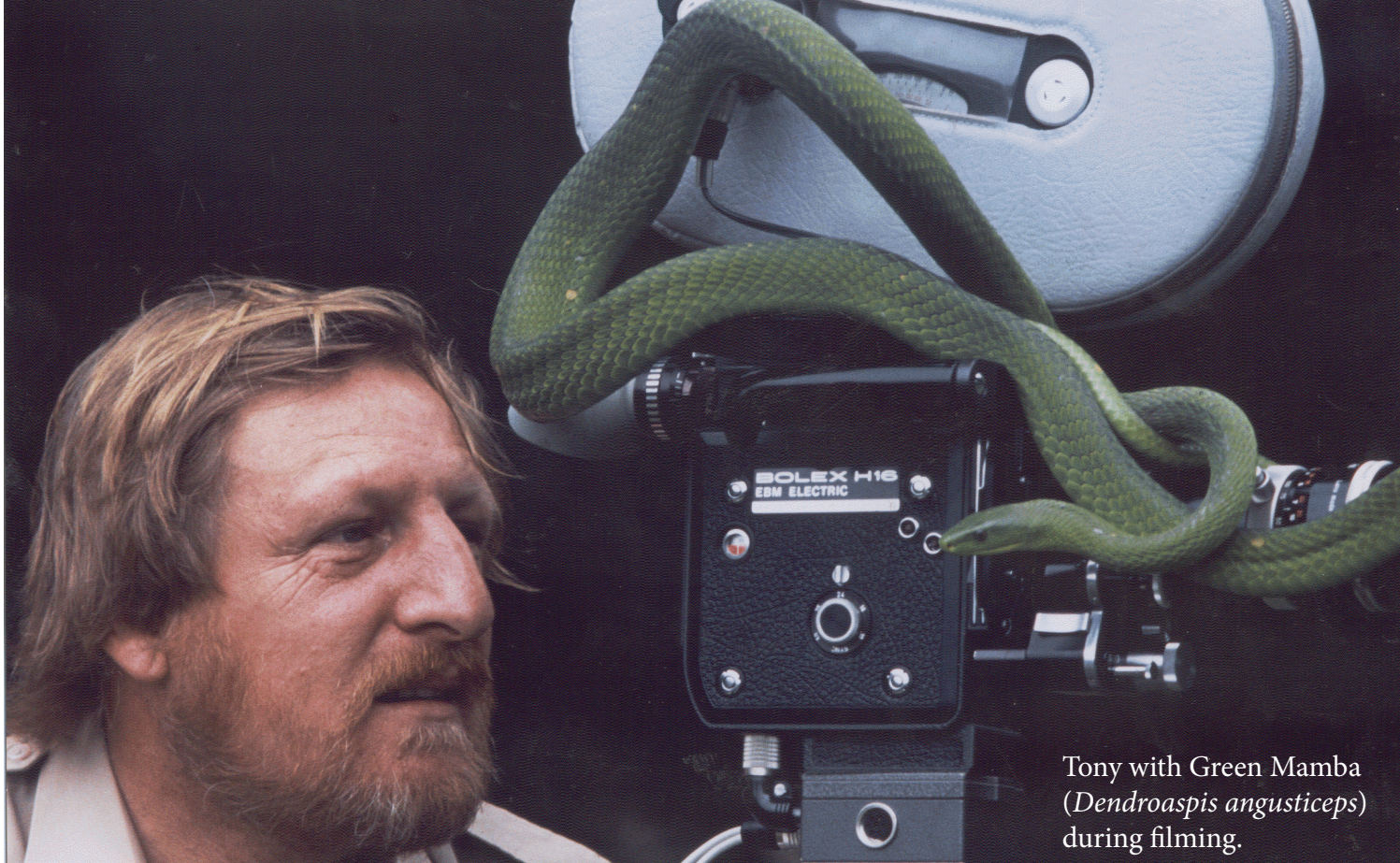
I regularly picked Wulf up for a coffee session and he just loved it. When fellow herpetologists visited I always tried to include a coffee session with Wulf but as his health deteriorated it became more and more difficult and I had to find coffee shops where he only had to cover a very short distance from the vehicle to the nearest table.

Wulf had a second stroke and then went for back surgery, putting a temporary end to our visits. COVID 19 lockdown followed thereafter and I could no longer visit him. I had arranged another coffee session in June this year but Wulf sadly passed away a few days later.

I do miss our times together, the stories that he had to tell, the wisdom that he shared and seeing his big smile and sparkle in his eyes.



Above - Wulf with a Rock Monitor.
Source - SARCA



Tony with Green Mamba (*Dendroaspis angusticeps*) during filming.

TONY EDISON PHELPS 1941 – 2021

By Mark O'Shea, Tell Hicks, Stephen Spawls and Johannes Els

"It is also important to encourage young herpetologists, be they professional or amateur. I have never been empirical about my work; there is no point of gaining experience if you do not pass it on to the herpetologists of tomorrow."

Tony Phelps, *Old World Vipers*, 2010.

Tony Edison Phelps was born on 28 June 1941, in Bedford, England. Tony's fascination with reptiles dates back to a time when as an eight-year-old he observed two male European Adders (*Vipera berus*) in combat in the UK. After school he joined the Welsh Guards and trained at the Pirbright Barracks in Surrey, southern England. He also served in Kenya and a tour in Yemen.

In 1969 Tony became one of the founding members of the International Herpetological

Society, the other three founders were the late John Foden (1948–2000), the wildlife artist Tell Hicks and Dave Turnbull. Tony then established the Poole Serpentarium, on the south coast of England. In a very short time Poole Serpentarium gained a reputation for the largest collection of venomous snakes on view to the public in the UK. He also ran his very popular British reptile field courses in Purbeck, Dorset in the late 1970's.



Above - Tony taking a sample of venom from a Puff Adder (*Bitis arietans*) at Poole Serpentarium.

In 1981 Tony's first book was published by Blandford Press followed by a revised edition in 1989. The publisher insisted on calling both editions *Poisonous Snakes*, a fact which rankled Tony. He wrote a second book, *Old World Vipers*, which was published by Chimaira in 2010 as well as several scientific papers on British and African reptiles (see bibliography).

Tony left Poole Serpentarium for South Africa and worked at Fitzsimons Snake Park in Durban from 1982–1984. At the same time, he was working on Nile Crocodiles (*Crocodylus niloticus*) in the St. Lucia Reserve, KwaZulu-Natal, alongside crocodile biologist Tony Pooley. It was during this that he began his fieldwork on Black Mambas (*Dendroaspis polylepis*) and Gaboon Vipers (*Bitis gabonica*).

Tony returned to the UK and became a natural history cameraman, an occupation which included filming for the BBC and National

Geographic. He was living in Swanage, Dorset, where he had established 'Reptile Research and Imagery' to promote both the filming of and the research into reptiles.

He continued his long-term studies of the local snake populations and did contractual work for English Nature, getting to know some of the European Adders extremely well over the following decades. One winter he discovered one of his favourite hibernacula had been destroyed by a bulldozer doing heathland management at the behest of the authorities. There were dead Smooth Snakes (*Coronella austriaca*) and European Adders scattered about and Tony was distraught at the loss of snakes, friends that he had known personally and whose lives he had followed for so long. He spoke out to the press and as a result the contracts ended. In disgust Tony left the UK for the last time.



Above - Tony conducting adder research in Dorset, UK.

In 2003 Tony moved back to South Africa and received his citizenship in 2010, settling in Oudtshoorn, Western Cape. While working on his book, *Old World Vipers*, he noticed a lack of significant ecological data for the dwarf adders (*Bitis* spp.) in particular the Southern Adder (*Bitis armata*), which subsequently inspired his pursuit for further study. He presented the preliminary results of this study at the 2005 World Congress of Herpetology.

In 2004 Tony established the Cape Reptile Institute through which he ran his reptile research and snake awareness courses. While working at De Hoop Nature Reserve on the Southern Adders, his studies expanded to include Cape Cobras (*Naja nivea*) and Puff Adders (*Bitis arietans*). During his time in De Hoop he discovered a love that rivalled his love for snakes - Chacma Baboons (*Papio ursinus*). He spent many months studying the behaviour of these social and inquisitive primates while working on a film documentary with friend Ian Scammel.

His final visit into the field was in De Hoop during June 2019 but his memory had deteriorated badly by this time and he was diagnosed shortly after with dementia. In March 2021 he was diagnosed with advanced prostate cancer. He passed away in the frail care centre of the Oudtshoorn Retirement Home in Western Cape, on 5 November 2021.

He was married four times and leaves three former wives, two sons, a daughter, and a grandson. He will be greatly missed by the herpetological community, especially in southern Africa and the UK.

Note: A comprehensive account of Tony Phelps' life will be published by the International Herpetological Society in the

March 2022 issue of *The Herptile*.

Bibliography:

- Phelps, T. 1978. Seasonal movement of the snake, *Coronella austriaca*, *Vipera berus*, and *Natrix natrix* in southern England. *British Herpetological Journal*. 5: 755–761.
- Phelps, T. 1981. *Poisonous Snakes*. Blandford Press. 245 pp.
- Phelps, T. 1989. *Poisonous Snakes* (revised edition). Blandford Press. 245 pp.
- Phelps, T. 2000. Reproductive behaviour of the Sand Lizard, *Lacerta agilis*, in south-eastern Dorset, with a note on habitat management. *The Herpetological Bulletin* 72: 21–25.
- Phelps, T. 2002. A study of the Black Mamba (*Dendroaspis polylepis*) on KwaZulu-Natal, South Africa, with particular reference to long-term-refugia. *The Herpetological Bulletin* 80: 7–19.
- Phelps, T. 2003. *Bitis gabonica* (Gaboon Adder): Unusual mortality. *The Herpetological Bulletin* 86: 24–25.
- Phelps, T. 2003. *Vipera berus* (European Adder): Hot weather behaviour in Purbeck, Dorset. *The Herpetological Bulletin* 86: 26–25.
- Phelps, T. 2003. *Natrix natrix* (Grass Snake): Unusual markings. *The Herpetological Bulletin* 86: 28–29.
- Phelps, T. 2004. Population dynamics and spatial distribution of the adder *Vipera berus* in southern Dorset, England. *Mertensiella* 15: 241–258.
- Phelps, T. 2006. *Naja nivea* (Linnaeus, 1758). Scavenging. *African Herp News* 40: 24.
- Phelps, T. 2006. *Bitis armata* (Smith, 1826). Predation. *African Herp News* 40:24.
- Phelps, T. 2006. *Bitis armata* (Smith, 1826). Prey. *African Herp News* 40:26.
- Phelps, T. & Els, J. 2006. *Bitis caudalis* (A. Smith, 1839). Geographical distribution. *African Herp News* 40: 30.
- Phelps, T. & Els, J. 2006. *Bitis rubida* Branch, 1977. Diet/ Morphology. *African Herp News* 41: 23.
- Phelps, T. 2010. *Old World Vipers: A Natural History of the Azemiopinae and Viperinae*. Edition Chimaira. 558 pp.
- Barlow, A., K. Baker, C.R. Hendry, L. Peppin, T. Phelps, K.A. Tolley, C.E. Wüster and W. Wüster 2013. Phylogeography of the widespread African Puff Adder (*Bitis arietans*) reveals multiple Pleistocene refugia in southern Africa. *Molecular Ecology*. 22: 1134–1157.

