

AFRICAN HERP NEWS

No. 31

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CONTENTS

EDITORIAL	1
SHORT COMMUNICATIONS	
KOPIJ, G. The Herpetofauna of Lesotho	2
NATURAL HISTORY NOTES	
CUNNINGHAM, M & HENDERSON, CL. <i>Strongylopus bonaspei</i>	4
PAUWELS, OSG & DAVID, P. <i>Naja mossambica</i>	5
PAUWEL, OSG, LENGLET, G, TRAPE, J & DUBOIS, A. <i>Grayia smithii</i>	7
PAUWEL, OSG, TOHAM, AK & LENGLET, G. <i>Grayia ornata</i>	9
GEOGRAPHICAL DISTRIBUTION	
BROADLEY, DG. <i>Lygodactylus angularis</i>	11
BROADLEY, DG. <i>Melanoseps uzungwensis</i>	11
BROADLEY, DG. <i>Holaspis laevis</i>	13
GIRARD, F. <i>Chamaeleo dilepis</i>	14
BROADLEY, DG. <i>Typhlops congestus</i>	15
YEADON, RB & BATES, MF. <i>Aspidelaps lubrica lubricus</i>	16
BAARD, EHW. <i>Lamprophis fiskii</i>	17
ANDERSON, B. <i>Thelotornis kirtlandi</i>	18
BAARD, EHW. <i>Phrynomantis annectens</i>	19
BAARD, EHW. <i>Bufo robinsoni</i>	20
RECENT AFRICAN HERPETOLOGICAL LITERATURE	23
HERPETOLOGICAL BOOKS	33
NEWS & ANNOUNCEMENTS	37
HAA FINANCIAL STATEMENTS	43

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AFRICAN HERP NEWS

NEWSLETTER OF THE
HERPETOLOGICAL ASSOCIATION OF AFRICA



No. 31

October 2000

HERPETOLOGICAL ASSOCIATION OF AFRICA

FOUNDED 1965

The HAA is dedicated to the study and conservation of African reptiles and amphibians. Membership is open to anyone with an interest in the African herpetofauna. Members receive the Association's journal, *African Journal of Herpetology* (which publishes review papers, research articles, short communications and book reviews - subject to peer review) and newsletter, *African Herp News* (which includes short communications, life history notes, geographical distribution notes, venom and snakebite notes, short book reviews, bibliographies, husbandry hints, announcements and news items).

NEWSLETTER EDITOR'S NOTE

Articles will be considered for publication provided they are original and have not been published elsewhere.

Articles may be submitted for peer review (at least two reviewers) at the Editor's discretion. Lists of reviewers will be published in the newsletter from time to time.

Authors are requested to submit long manuscripts on disc or by e-mail in Word 6.0/7.0 format.

The views and opinions expressed in articles are not necessarily those of the Editor.

Articles and news items appearing in *African Herp News* may be reprinted, provided the author's name and newsletter reference are given.

TYPING AND PRODUCTION:

Manus Visser, Department of Zoology, US.

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COVER ILLUSTRATION: Paradise Toad, *Bufo robinsoni*.

EDITORIAL

This issue of *African Herp News* was due to be sent out in June/July 2000. However, this was also HAA Committee election time and with the handing over of the Chair, various unexpected delays resulted. We now seem to have ironed out all the problems and Vol 32 will follow shortly.

I would like to take the opportunity to thank our past Chairman, Angelo Lambiris, and his committee members, for their dedication to the Herpetological Association of Africa. I feel the *African Journal of Herpetology* has come a long way in the past few years and special thanks are owed to Martin Whiting for making this happen. Well done, Martin!

As the new Chair I would also like to thank all those who have contributed articles this year, both for the Journal and for the newsletter. We are happy to produce more issues of the newsletter, as long as you send more articles! I urge all members who are out there working on exciting projects to contribute to the newsletter.

Other news: there will definitely be an HAA conference in 2001 - towards the latter part of the year. The venue etc is being finalised so look out for the first announcement early in the New year. Also, a new HAA Website is in the making. We still have a lot of work to do, so please feel free to send thoughts and ideas our way. After all this is your association!

With best wishes for the festive season and may 2001 be a great "herping" year for us all.

Alison Leslie

Chair and Newsletter Editor.

SHORT COMMUNICATIONS

The Herpetofauna of Lesotho

Ambrose, D. 1999. Lesotho annotated Bibliography. Section 165: Amphibians, including annotated species checklist. Institute of Education, National University of Lesotho, [Roma, Lesotho]. 20 pages, A4.

Ambrose, D. 1999. Lesotho annotated Bibliography. Section 166: Reptiles, including annotated species checklist. Institute of Education, National University of Lesotho, [Roma, Lesotho]. 26 pages, A4.

The checklist, a first for Lesotho, includes 19 species of amphibians (including 7 species with less than 10 records since 1950) and 43 species of reptiles (including 25 species with less than 10 records since 1950, and 3 historical species, namely *Python sebae*, *Tropidosaura cottrelli* and *Nucras lalandii*). Those figures seem to seriously underestimate the real number of Lesotho species.

An attempt was made to establish species names in Sesotho. However, for only four (out of 19) amphibian and 18 (out of 43) reptile species have such names been given. Even so, some of them are still synonymous. The author has failed to create names by borrowing some from related Tswana or by translation of existing and universally recognised Latin names.

The two bibliographies contain 18 items on Lesotho amphibians and 24 items on Lesotho reptiles. The figures would have been even lower if some books were excluded (e.g. Branch 1988; Du Preez 1996; Lambris 1988; Marais 1992; Passmore & Curruthers 1979; Wager 1965), as being too general in scope for the purpose of the local bibliography. There are a few items which have, apparently, no references to Lesotho (e.g.: Bourquin & Mosenye 1989; De Waal 1978; Douglas 1991); those items also should be excluded from the Bibliography. On the other hand, a few items, entirely devoted to Lesotho fauna, have been omitted (e.g. Bates 1991).

One may conclude that too little is known and too little has been published on the herpetofauna of Lesotho to compile a separate bibliography on this subject. Here, it is important, however, to note that by 1980 single items were only known on both Lesotho amphibians and reptiles (cf. Willet & Ambrose 1980) and such state of Lesotho herpetology can be kept in mind of many foreign herpetologists.

Submitted by

Dr. G. Kopij

NATURAL HISTORY NOTES

African Herp News publishes brief notes concerning the biology of the herpetofauna of the African continent and adjacent regions, including the Arabian peninsula, Madagascar, and other islands in the Indian ocean.

A standard format is to be used, as follows: **SCIENTIFIC NAME**; Common name (using Bill Branch's *Field Guide to Snakes and other Reptiles of Southern Africa*, third edn. 1998, for reptiles; and Passmore & Carruthers' *South African frogs*, 1995, for amphibians as far as possible); **KEYWORD** (this should be one or two words best describing the topic of the note, eg. Reproduction, Avian predation, etc.); the Text (in concise English with only essential references quoted and in abbreviated form); **Locality** (country, province or state, location, quarter-degree unit, and latitude and longitude if available; elevation above sea level; use



"Well, of course I did it in cold blood, you idiot! I'm a reptile."

metric units); **Date** (day, month, year); **Collector(s)**; **Place of deposition and museum accession number** (required if specimens are preserved).

Submitted by: **NAME**,
Address (in parentheses).

STRONGYLOPUS BONASPEI (Dubois 1980).**Banded stream frog****REPRODUCTION**

Fertilisation and oviposition in frogs involve species distinctive behaviours, however, such activities are infrequently observed, and in comparison with other aspects of reproduction, such as calling, amplexus and egg clutch observations, these behaviours are poorly known. The following observations were recorded within the Rooi Els Flower Reserve (Kleinmond municipality), South east coast, South Africa (34° 18' 56"S, 18° 49' 01"E, ±5 m asl). At this site a sparse chorus of *S. bonaspei* males call from seasonally inundated, restioid fynbos, between late-May and mid-August. Calling activity is predominantly diurnal, with peak activity, and 'cackling' chorus calls, around sunset and only occasional 'squark' calls through the night.

On 9th Aug 1999, a day of light rain and mists, sunset was at 18:10 and by 19:00 calling activity had subsided. At 20:00 we found an amplexant pair beside a temporary pool approximately 2 m x 1 m and up to 20 cm deep. We observed this pair throughout oviposition and timed behaviours with a stopwatch until 20:38 at which time the male released the female and she moved away. Thirty-three oviposition cycles were observed with a mean cycle period of 55 ± 29 s (range 16 - 119s). In a typical oviposition cycle the female flexed upwards, pushing against her back legs to extrude a single egg, and then resumed a neutral posture. The male pushed back, with his feet in the female's groin, to fertilise the egg. The egg was subsequently deposited on the substrate through rotation by the female of approximately 60° (range c. 120° clockwise to 120° anti-clockwise). Sequential cycles of rotation were generally in the same direction (19 clockwise, 10 anti-clockwise) and in nine cycles the female also moved forwards two steps after egg deposition. Throughout oviposition the male gave the female a short, sharp squeeze every 9 - 12s, or every 5 - 7 female breaths. Following oviposition the male remained inactive in the oviposition arena until 20:48. Both individuals were caught, weighed and measured as they left this area (female: Snout-Urostyle, SU 43.8 mm, Shank, TL 29.8 mm, head-width, HW 15.3 mm, weight, WT 6.7 g; male: SU 32.5 mm; TL 22.3 mm; HW 10.9 mm, WT 2.5g) and we confirmed that the female had spent her eggs. Two other males were caught around the same pool, both of which had been calling at dusk, and one of which had called ('squark') three times during the observation period. These were of similar size to the amplexant male

(SU 33.4, 31.5 mm; TL 20.6, 20.6 mm; HW 10.6, 10.2 mm; WT 2.5, 2.4 g). The oviposition arena was situated at the base of a Restio clump, approx. 40cm high, on a peninsula 2-3cm above the water level. The two other Restio clumps at the pool edge, approximately 0.5 and 1.5m distant, were each occupied by calling male *S. bonaspei*, and so it seems likely that oviposition occurred in the chosen male calling site. The total clutch of 44 half-pigmented eggs was irregularly scattered over an area of 5 x 10 cm on a thin substrate of detritus covering moist sand. All eggs were within 5 - 10 cm of the water. The air temperature immediately after oviposition was 12°C and the substrate temperature 13°C. Egg and egg capsule diameters were measured with dial callipers immediately after oviposition (n=10: eggs, 2.9 ± 0.3 mm; capsules, 3.8 ± 0.2 mm) and hydrated capsules were measured again at 14:00 the following day (n=10, capsules, 5.2 ± 0.3 mm). The initial stages of development were followed until the 13th August by which time gastrulation was in progress and a neural crest was visible in all eggs. Daily air temperatures rose as high as 19.5°C, and substrate temperatures up to 17°C. Pond water levels dropped steadily so that by the 13th the nearest water was 22cm from the eggs. Nevertheless the oviposition arena appeared well chosen as the eggs were shaded from direct sunlight and sheltered from the strong, desiccating wind.

Submitted By

Michael Cunningham and Catherine Lys Henderson (Department Zoology, Stellenbosch University, Private Bag X1, Matieland, 7602, South Africa.)

NAJA MOSSAMBICA (Peters, 1854)**Mozambique Spitting Cobra****DIET**

Spawls & Branch (1995: The dangerous snakes of Africa. Natural history. Species directory. Venoms and snakebite. Blandford, London: pp. 1-192) state that *Naja mossambica* preys on amphibians, lizards, snakes, rodents and insects. According to Branch (1998: Field guide to snakes and other reptiles of Southern Africa. Third edition. Struik, Cape Town: pp. 1-399), this species feeds on toads, lizards, rodents, and grasshoppers. Eggs and chicks are also part of its diet (Jacobsen, 1985: Ons reptiele. CUM-Boeke, Roodepoort: pp. 1-208).

We here present a documented case of ophiophagy in this species. A *Naja mossambica* (MNHN 1981.1166), from "Southern Africa, Ladysmith, 3,500 ft. alt., Natal Midlands, Klip River, Farm Dawns Pride", collected by H.D. Shaw-Copeland on January, 3, 1981, was found having nearly completely ingested a Herald Snake *Crotaphopeltis hotamboeia* (Laurenti, 1768) (MNHN 1999.7629). The Cobra is a female, measuring 466+103 mm, and has 190 ventrals, 58 (3 single + 55 divided) subcaudals, and 23 midbody scale rows. The Herald Snake, which was ingested head first, is a female measuring 412+59 mm, and has 152 ventrals, 41 divided subcaudals, and 19 midbody scale rows; its own stomach contains unidentifiable frog remains, nematodes, and 6 partly digested termite workers (*Microcerotermes* sp.). There is no doubt that the termites were ingested by the frog itself. Anuran Amphibians constitute the main part of the diet of the Herald Snake (see notably Rasmussen, 1985: *Steenstrupia* 11(4): 113-129), but this snake is also known to eat other snakes (Stucki-Stirn, 1979: Snake Report 721. Herpeto-Verlag, Teuffenthal: vii + 1-650). *N. mossambica* willingly frequents termitaries (Jacobsen, loc. cit.; Spawls & Branch, loc. cit.).

The Mozambique Spitting Cobra has a very eclectic diet, and the compilation of the diet records of the species shows that it feeds on warm-blooded as well as on cold-blooded vertebrates and even insects. The predation case presented above is interesting in that it places *Naja mossambica* in a complex food chain.

Acknowledgements

We are indebted to Prof. Alain Dubois (MNHN) for comments on the manuscript and to Dr Annemarie Ohler (MNHN) for constructive discussions. We are grateful to Prof. Maxime Lamotte and Dr André Nel (MNHN) for the identification of the termites.

Submitted by

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GRAYIA SMITHII (Leach, 1818)

Smith's African Water Snake

DIET

A junior synonym of *Grayia smithii* (Leach, 1818) is *Grayia silurophaga* Günther, 1858. The reason for the latter name is that the syntypes BM(NH) 1946.1.5.16 and BM(NH) 1951.12.6.16 contained a Black Walking Catfish *Clarias anguillaris* (Linnaeus, 1758) (Siluriformes, Clariidae). De Rochebrune (1884. Faune de la Sénégambie. Reptiles. Doin, Paris, pp. 1-221) wrote that the species feeds on various kinds of small fishes, and not only on siluroids, and hence that the specific epithet «piscivora» would have been much more appropriate for the species than the name silurophaga. Cansdale (1955. Reptiles of West Africa. Penguin Books, West African Series, London: pp. 1-104) stated that it "feeds mostly on mudfish, though it also takes tadpoles and frogs, especially the aquatic clawed frog *Xenopus*". Cansdale (1961. West African Snakes. West African Nature Handbooks. Longmans, London: pp. vi + 1-74) said that it eats fish, notably mud-fish (*Clarias* sp.) and frogs, notably clawed frogs (*Xenopus tropicalis* according to Dunger, 1972. The Nigerian Field 37(1): 21-38). Doucet (1963. Acta tropica, 20(3): 201-340) stated that it feeds on fishes. Roux-Estève (1965. Cahiers de la Maboké, 3(1): 51-92) said that it feeds on frogs and fishes. De Witte (1966. Institut des Parcs nationaux du Congo, Fasc. 48, Bruxelles: 1-108 + pl. I-V) mentioned a specimen that was catching a catfish ("silure") when collected. Leston & Hughes (1968. Bull. IFAN (A), 30: 737-770) cited a Ghanaese specimen which had eaten a 215 mm long catfish *Heterobranchus longifilis* Valenciennes, 1840 (Siluriformes, Clariidae). Villiers (1975. Les serpents de l'Ouest africain. Init. Afr., IFAN, 3rd ed.: pp. 1-195) said that it feeds mainly on fishes. Stucki-Stirn (1979. Snake Report 721. Herpeto-Verlag, Teuffenthal: pp. vii + 1-650) reported that it eats fishes (mainly mudfish) and frogs. Chippaux (1980. Epidémiologie des morsures de serpents en Côte d'Ivoire. Ph.D. thesis, Faculté de Médecine, Marseille: pp. 1-154) and Chippaux (1999. Les serpents d'Afrique occidentale et centrale. IRD Editions, Paris, pp. 1-278) stated that the species feeds on fishes and amphibians. The hand-written label accompanying the adult female MNHN 1994.7294 (SVL 1003 mm, tail length >356 mm, ventrals 160, subcaudals >74) indicates "couleuvre aquatique attrapée sur les bords du fleuve Bandama [Lamto, Côte d'Ivoire] alors qu'elle sortait du fleuve pour manger le Silure" («aquatic colubrid caught on the river bank while it was going out of the Bandama River [Lamto, Ivory Coast] in

order to eat the catfish"); we could however not trace this fish in the MNHN collections. We hereafter report the stomach content of an adult female *G. smithii* (MNHN 1987.1419; SVL 995 mm, tail length >392, ventrals 159, subcaudals >91), collected in Congo Brazzaville, Epena (1°21'N 17°28'E) area, which had ingested the exceptional number of 20 fishes representing four species of Cichlidae. This specimen was already quoted in a list of the Congolese snake species by Trape & Roux-Estève (1995. J. Afr. Zool., 109(1): 31-50). The circumstances of its capture are quite unusual and deserve some comments. It was given to one of us (J.-F. T.) by Mr Roy Mackal who caught it during a cryptozoological expedition (October-December 1981) devoted to the study of a large cryptid called Mokele-Membe, said to resemble Mesozoic sauropods. The report of the expedition with a map of the research area was given by Mackal et al. (1982. Cryptozoology, 1: 62-72). The snake was precisely caught during the return passage of the expedition, while the cryptozoologists were hardly progressing by dugout in the narrow 20-miles Djemba canal linking the Tanga River to the Ubangui River. The list of the 20 fishes is as follows (their respective standard length in mm from tip of snout to base of caudal fin is indicated between brackets, with a precision of 0.05 mm): 8 *Hemichromis* sp. (33.50, 35.00, 40.65, 41.65, 44.00, 45.00, 46.25, 47.55), 3 *Thoracochromis* sp. (61.90, 86.60, 91.55), 2 *Tilapia* sp. (45.90, 46.35), and 7 Cichlidae sp. (40.00, 45.40, 46.80, 48.00, 48.65, 50.05, 50.05).

We take the opportunity of this note to mention that the species was dedicated to the Norwegian botanist Smith and hence that the spelling *Grayia smythii*, as well as the common name Smyth's water snake, encountered in many recent publications (e.g. Spawls & Branch, 1995. The dangerous snakes of Africa. Natural history. Species directory. Venoms and snakebite. Blandford, London: pp. 1-192) overlooking the nomenclatural remarks of Laurent (1956. Anns. Mus. Roy. Congo Belge, Sci. Zool., 48: pp. 1-390 + pl. I-XXXI) and Meirte (1992. Anns. Mus. Roy. Afr. Centr., Sci. Zool., 267: 1-152), is inappropriate, being an original incorrect spelling of *Grayia smithii* (for the differences between different kinds of spellings in zoological nomenclature, see Dubois, 1987. Alytes, 6 (1-2): 27-55).

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(Natural History), and to Dr. Danny Meirte (MRAC/KMMA, Tervuren) for constructive discussions.

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GRAYIA ORNATA (Bocage, 1866)

Ornate Water Snake

DIET

The African Ornate Water Snake is distributed in the swamps and rivers of Equatorial Africa. Very little data on its biology and food habits are available in the literature. Chirio (1998. Les serpents du Cameroun. C.R.P. Bafoussam, Projet Paseca, A.F.C. Dschang, Yaounde, pp. 1-37) mentioned that *Grayia ornata* is aquatic and piscivorous and goes on land only for basking and egg laying. Moreover Chippaux (1999. Les serpents d'Afrique occidentale et centrale. IRD Editions, Paris, pp 1-278) specified that the species is also "arboreal" in that it hunts from branches overhanging the water. Due to the lack of precise data on the diet of *G. ornata*, we think appropriate to provide hereafter two cases of ichthyophagy for the species.

The stomach of the young male MNHN 1995.9386 (SVL 288 mm, tail length 110 mm, ventrals 150, subcaudals 85) from Equatorial Guinea, Monte Alen National Park, donated by Carlos Lasso, contains a *Parauchenoglanis* sp. (Siluriformes, Claroteidae (ex Bagridae) (total length 78 mm).

The stomach of the adult female IRSNB 11193 (SVL 800 mm, tail length 260 mm, ventrals 156, subcaudals 76) collected by natives on 22 March 1950 in Congo (now Democratic Republic of Congo), Parc

National de la Garamba, Bagbele area, contains a juvenile headless *Clarias* sp. (Siluriformes, Clariidae). This snake specimen was already cited by de Witte (1966. Reptiles. Exploration du Parc National de la Garamba. Institut des Parcs Nationaux du Congo, Brussels, pp. 108 + 5 pl.).

These two documented cases of predation on Siluriformes confirm the apparently mainly aquatic habits of *G. ornata*.

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We thank Prof. Alain Dubois and Dr Patrick David (MNHN) for commenting on the manuscript.

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GEOGRAPHICAL DISTRIBUTION

African Herp News publishes brief notes of new geographical distributions (preferably at least 100 km from the nearest published record) of amphibians and reptiles on the African continent and adjacent regions, including the Arabian peninsula, Madagascar, and other islands in the Indian Ocean.

A standard format is to be used, as follows: **SCIENTIFIC NAME**; Common name (for sources, see Natural History Notes); **Locality** (country, province or state, location, quarter-degree unit, and latitude and longitude if available; elevation above sea level; use metric units); **Date** (day, month, year); **Collector(s)**; **Place of deposition and museum accession number** (required if specimens are preserved); **Comments** (including data on the size, colour and taxonomic characters, eg. Scallation, webbing, especially for taxonomically problematic taxa; and nearest published locality record(s) in km; references to be quoted in the text). Submitted by **NAME**, Address (in parentheses).



"Oh, God! It's that creepy Ted Sheldon and Louis Dickerson. ... They're skinheads, you know."

Records submitted should be based on specimens deposited in a recognised collection. New South African province names must be used.

Notes submitted in an incorrect format or style will be returned to the authors.

REPTILIA

SAURIA

GEKKONIDAE

LYGODACTYLUS ANGULARIS (Guenther, 1893).

Angle-throated Dwarf Gecko

Tanzania, Morogoro Region, Ulanga District, Kilombero valley (08° 3'S: 36° 2'E), 16 April 1999. Frontier-Tanzania (a collection between the University of Dar es Salaam and the Society for Environmental Exploration in the UK); Natural History Museum of Zimbabwe, NMZB 16408. Taken in a pitfall trap set in leaf litter in Miombo woodland.

This male specimen (33 + 36 mm) agrees with material from Malawi (including topotypes) and Zambia, having a well defined chevron pattern on the throat. It represents an east-north-east range extension of 220 km from the Ukinga Mountains, where Loveridge (1933. Bull Mus. Comp. Zool. Harv. 74: 292) collected the species at Tandala and Madehani. Previous records are all from relatively high altitudes.

L. angularis grzimeki Bannikov & Darevsky, 1969 (known only from Lake Manyara National Park, about 550 km north of the Kilombero Valley) appears to be a good evolutionary species. The two other species lack the distinct chevron throat pattern.

Submitted by

D. G. Broadley (Biodiversity Foundation for Africa, P. O. Box FM730, Famona, Bulawayo, Zimbabwe).

SCINCIDAE

MELANOSEPS UZUNGWENSIS (Loveridge, 1942).

Udzungwa Limbless Lizard

Tanzania, Iringa Region and District, West Kilombero Scarp Forest Reserve, Ndundulu Mountains (07° 45' 39"S: 36° 26' 51"E) at 2000 m; 30 July 1999; Frontier-Tanzania; Natural History Museum of Zimbabwe NMZB 16350. Taken by hand in leaf litter on a steep (34°) west-facing slope in montane forest.

This male specimen measures 167 + 48 mm. It agrees with the types in having a small posteriorly displaced postnasal on each side, but differs in having the frontonasal longitudinally divided. It has 26 midbody scale rows, 156 ventrals and 42 subcaudals, compared with 26-28 and 165-168 for the first two counts in the two female syntypes (Brygoo and Roux-Esteve, 1981. Bull. Mus. Nat. Hist. Nat. Paris (4) 3 (A); 1181). This skink is uniform black, whereas the syntypes were pinkish-white below with brown lines on each scale row, but there is also much variation in ventral colouration in *M. ater*. This appears to be the first specimen to be collected since the types in 1929 and it represents a northeastern range extension of 120 km from the Kigogo type locality.

M. uzungwensis can be considered a good evolutionary species, distinguished by its large size (up to 202 mm snout-vent), retention of small postnasal scales and high mid-body (26-28) and ventral (156-168) scale counts. It is at least parapatric with the small *M. loveridgei* (NMZB 6946 from Lugoda, Mufindi District)

I am grateful to Jose Rosado (Museum of Comparative Zoology, Harvard) for checking the head shields in the holotype MCZ 31076 and paratype MCZ 31077 (the "3's" were erroneously changed to "5's" in the original description).

Submitted by

D. G. Broadley (Biodiversity Foundation for Africa, P. O. Box FM730, Famona, Bulawayo, Zimbabwe).

LACERTIDAE

HOLASPIS LAEVIS (Werner, 1895).

Eastern Serrate-Toed Tree Lizard

Tanzania, Morogoro Region, Ulanga District, Kilombero valley (08° 35' S: 36° 29' E), 25 August 1999; Frontier-Tanzania; Natural History Museum of Zimbabwe NMZB 16321. Taken in a pitfall trap set in Miombo woodland.

This appears to be the first record from the Morogoro Region. Most previous Tanzanian records are from the Usambara Mountains and environs, but the species was recorded from Miombo woodland at Liwale (200 km to the southeast of the Kilombero locality) and Tunduru by Loveridge (1955. J. E. Afr. Nat. Hist. Soc. 22: 177).

This specimen (35 + 43 + mm) is unusual in having the black vertebral stripe so broad that it entirely covers the paired paravertebral rows of enlarged dorsal scales, so that the pale paravertebral stripes are displaced onto the adjacent rows of small scales. *H. laevis* seems to be a good evolutionary species, which can be distinguished on the basis of the following key:

Pale paravertebral stripes confined to the paired rows of enlarged paravertebral scales.....*H. guentheri*

Pale paravertebral stripes not confined to the paired rows of enlarged paravertebral scales, extending onto (or even restricted to) adjacent rows of small scales.....*H. laevis*.

H. laevis occurs in East Africa from north eastern Tanzania south to central Mozambique and west to Malawi, but there are apparent relict populations in the Upemba National Park and near Lubumbashi in the south eastern D.R.C. (Witte, 1953. Explor. Parc. Nat. Upemba 6: 90), so it may yet be found in northern Zambia.

Submitted by

D. G. Broadley (Biodiversity Foundation for Africa, P. O. Box FM730, Famona, Bulawayo, Zimbabwe).

CHAMAELEO DILEPIS (Leach, 1819).

Flapneck Chameleon

South Africa. Drakensburg Mountains, Kwazulu-Natal, Cathedral Peak road, 17 January 2000

Two males were collected while crossing the road at 13h00 (Cathedral Peak road approximately 13 km from Winterton). On each side of the road there was Eucalyptus forest (forest exploitation). The 2 specimens were not measured, but had the same size (around 120 mm SVL). The hemipenial pockets were very swollen indicating an obvious sexual maturity and sexual activity.

Local people know that animal (larger than *B. dracomontanum*). The owner of the Bergville hotel regularly sees large chameleons in his garden.

This new locality extends the distribution of the species inland, as it is primarily known from the coastal province area (Branch, 1988. A field guide to the snakes and other reptiles of Southern Africa, Struik Publishers, Cape Town.

Submitted by

Francis Girard (167 Bd. Vincent Auriol, 75013, Paris, France).

SERPENTES
TYPHLOPIDAE

TYPHLOPS CONGESTUS (Dumeril & Bibron, 1844).

Blotched Forest Blind-snake

Tanzania, Lindi Region, Tendaguru, Likwaye (0939 CB); collected by Reck sometime before World War 1; Zoological Museum, Berlin ZMB 23577, 23589.

A juvenile male (ZMB 23577) measuring 135 mm, length/diameter ratio 27; body scales in 28-28-24 rows (counts taken as in Schmidt, 1923 (Bull. Am. Mus. Nat. Hist. 49: 46), vertebrals 310. An adult female (ZMB 23589) measuring 620 mm, length/diameter ratio 23; body scales in 32-28-24 rows, vertebrals 376. Both specimens have the nasal sulcus arising from the first labial and supraocular wedged between preocular and ocular; they are blotched dorsally and laterally, the black blotches extensively confluent.

This is the first record for this species from Tanzania and represents a relict population in coastal forest. The nearest locality records for the species are 1500 km away in the Kivu District of the Democratic Republic of the Congo (Laurent, 1956. Ann. Mus. Roy. Congo Belge, Ser. 8vo, Sci. Zool. 48: 53, Figs. 1, 2, 11), and Bundingo Forest in western Uganda (BMNH 1935. 10. 9. 1).

Submitted by

D. G. Broadley (Biodiversity Foundation for Africa, P. O. Box FM730, Famona, Bulawayo, Zimbabwe).

ASPIDELAPS LUBRICUS LUBRICUS (Laurenti, 1768).**Coral Snake**

South Africa, Free State Province, Philippolis district, Rowelsfontein suburb, Philippolis (3025Ad1; 30°15'34"S, 25°16'00"E; 1385 m); 22 February 2000; J. Mobray & R.B. Yeadon; Rob Yeadon Private Collection, Philippolis; RY 1104. Found being chewed by a large dog in a residential area surrounded by typical Karoo with prominent rocky outcrops.

SVL 350 mm, tail length 35 mm. Body and tail encircled by broad black, and dark coral red bands; 51 black bands from nape to tip of tail. Dorsal scales in 19 rows at midbody; ventrals (Dowling) about 168 (estimated because parts of the belly missing) + one additional "ventral" scale distinctly wider than long; subcaudals 24; one preocular and two postoculars on either side; 3rd and 4th supralabials enter orbit.

Despite its distinctive and boldly marked appearance, this is only the second specimen of this nocturnal species recorded from the Free State. FitzSimons (1962, Snakes of Southern Africa, Purnell & Sons, Cape Town) recorded it from Smithfield (3026Ba3) and the specimen was later examined by De Waal (1978, Navors. nas. Mus., Bloemfontein 11: 1-160). According to De Waal (op.cit.) it differs from the Philippolis snake as follows: ventrals 153 (Dowling); subcaudals 23; three postoculars. De Waal (op. cit.) and Bates (1991, J. Herpetol. Assoc. Afr. 39: 14-18) also reported on a specimen (NMB R3503) found on the south bank of the Orange River at Aliwal North, Eastern Cape Province (3026Da4), which they felt ratified the somewhat isolated Smithfield record. The Aliwal North snake differs as follows: ventrals 140 (+ 1); subcaudals 23; three postoculars, the anterior one separating the 4th supralabial from the orbit; 46 black bands encircling the body and tail, the bands broader ventrally than those of the Philippolis snake. The latter specimen provides further confirmation of the occurrence of *Aspidelaps lubricus lubricus* in the karroid southern Free State. The nearest recorded localities to Philippolis are at locus 3024AB about 100 km WNW in the Northern Cape Province, and locus 3026CC about 100 km SE in the Eastern Cape Province (Broadley, 1990, FitzSimons' Snakes of Southern Africa, Jonathan Ball & Donker Publishers, Johannesburg). Smithfield is about 135 km ENE and Aliwal North about 125 km E.

Submitted by

R.B. Yeadon (Rowelsfontein, Philippolis) & M.F. Bates (Department of Herpetology, National Museum, P.O. Box 266, Bloemfontein 9300, South Africa).

LAMPROPHIS FISKII (Boulenger, 1887)**Fisk's House Snake**

South Africa; Western Cape Province; 3118AC; Collected dead on road from Landplaas to Namakwa Sands mining area, Brand-se-Baai, approximately 2 km NW of farm Karoovlei; approx. 31°17'09"S; 18°03'19" E; August 1995; H. Louw; One adult specimen (SAMZR 51267) deposited in the South African Museum, Cape Town.

This very rare house snake species is known from widely-scattered locations throughout the Western and Northern Cape Provinces, and specimens are known from Touwsrivier, Hutchinson, Worcester and Steinkopf, (Broadley, D.G. 1990. *FitzSimons' Snakes of Southern Africa*. J. Ball & AD. Donker Publishers, Parklands, Johannesburg) and from between Carolusberg and Okiep (Baard, E.H.W. 1987. *J. Herpetol. Assoc. Afr.* 33:29-30). Branch and Haagner [1992; *Koedoe* 35(2):59] reported the species for the first time from below the escarpment mountains on the southern plain of the Great Karoo, based on a specimen (PEM R6543) collected DOR on the Molteno Pass road, on the eastern boundary of the Karoo National Park, and filling the Touwsrivier-Hutchinson gap to an extent. After Milton, Dean and Kerley (1992; *Trans. Roy. Soc. S. Afr.* 48:15-46) reported the species from the Tierberg, Prince Albert, this record was, however, subsequently corrected (Milton and Dean, 1998; *African Herp News* 27:12-13) when Branch (*in litt.* to Dean and Milton, August 1993) confirmed it (photographic record) to be a *Dipsina multimaculata*.

During August 1995, Mr Hannes Louw, a teacher from Lutzville on the West Coast collected what he thought was *L. fiskii* on the newly constructed tarred road from Landplaas, approx. 25 km NW of Lutzville, to the Namakwa Sands mining area on the coast at Brand-se-Baai, approximately 50 km NW of the Olifant's River mouth, and presented it to the author, who confirmed the identification, during 1998. The specimen's identity was further confirmed by both W.R. Branch and D.G. Broadley during the 5th Herpetological Association of Africa Symposium at Stellenbosch in September 1998, and therefore constitutes

a first record for the West Coast of South Africa, partially filling an approximate 500 km gap between Okiep in the North and Worcester in the South, along the western half of the country, and confirming this species' presence in the Strandveld and Lowland Succulent Karoo (Low, A.B. and Rebelo, A.G. 1996. *Vegetation of South Africa, Lesotho and Swaziland*. Dept. Environmental Affairs & Tourism, Pretoria). Unfortunately, the specimen is extensively damaged and could neither be measured, nor could any scale counts be made. The hunt continues for live specimens from this area.

Submitted by

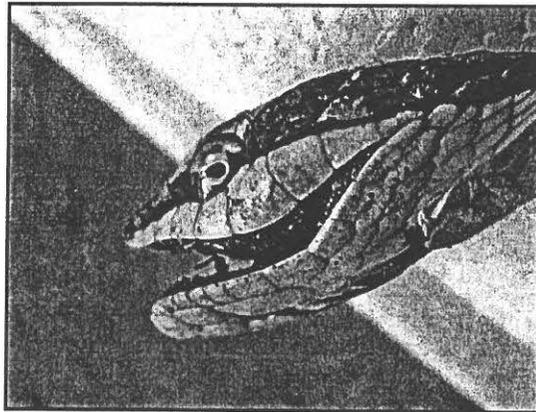
E.H.W. Baard (Cape Nature Conservation, Private Bag 5014, Stellenbosch 7599, R.S.A.)

THELOTORNIS KIRTLANDI

Forest Vine Snake

Tanzania, Mafia Island.

There have been two recent sightings of this snake on the N'gombeni Coconut Estate on Mafia Island, Tanzania. The first sighting was on 13th August 1999. The second was on 13 November 1999, when the snake was unfortunately killed.



I am using the "Dangerous snakes of Africa" as an identification guide, which states that distribution does not extend to Eastern Tanzania.

Submitted by

Bruce Anderson (Project Manager, P. O. Box 70, Kilindoni, Mafia island, Tanzania).

AMPHIBIA

ANURA

PHRYNOMANTIS ANNECTENS (Werner 1910).

Marbled Rubber Frog

South Africa; Northern Cape Province; 2918BD; From temporary rocky pool in small kloof to the East of the old mine shack inside the southern end of the Gamsberg crater, Gamsberg, Aggeneys, Bushmanland; 29°15'14"S; 18°59'05" E; 26 March 1999; J. Irish and E.H.W. Baard; One adult specimen (MMK/F/1166) deposited in the McGregor Museum, Kimberley.

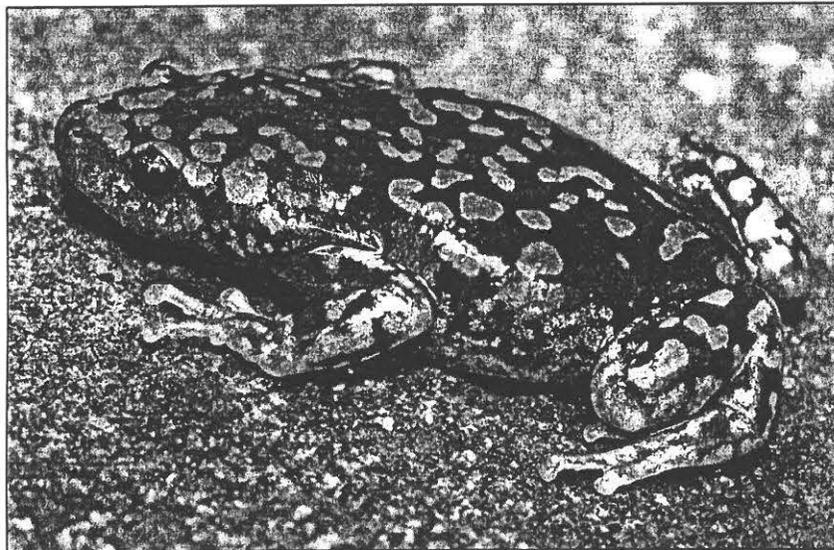
Although wide-spread outside the South African region [Poynton, J.C. 1964. The Amphibia of Southern Africa: a faunal study. *Ann. Natal Mus.* 17:1-334; Channing, A. 1988. *Phrynomerus annectens*: species account. p. 169-170. In *South African Red Data Book - Reptiles and Amphibians*. W.R. Branch (ed.), *S. Afr. Nat. Sci. Prog. Rpt.* 151], the marbled rubber frog is considered a peripheral taxon, just entering the Northern Cape Province at the Richtersveld and Augrabies Falls (Channing, *op. cit.*; Passmore, N. I. and Carruthers, V.C. 1995. *South African Frogs - a complete guide*. Southern Book Publishers). These arid zone specialists become active and breed only after good rains and may spend considerable periods between wet seasons in a dormant state. Their body form and short legs enable it to move efficiently in rocky terrain next to and in riverbeds in granite, shale and shist formations. During breeding, males gather around pools after dark and call from concealed sites in or near the water. Females lay 80 -100 eggs deposited as small groups on submerged vegetation and rocks. Tadpoles are nektonic and lack horny mouthparts, are somewhat similar in behaviour to *Xenopus* tadpoles (gregarious) and typically congregate in schooling masses near the water's surface.

During a study on the potential impact of an open-pit zinc mine on the herpetofauna of the Gamsberg, Bushmanland, and following very good rains 10 days prior to the author's visit, masses of *P. annectens* tadpoles (in schools of up to approximately 200-500 individuals) were observed in numerous rock pools (average depth of approximately 1 m) with sandy and rocky bottoms in the main gorge draining the crater and cutting through quartzite. The kloof is sparsely vegetated and strewn with boulders. Apart from the adult specimen that was collected from a different locality, no other metamorphosed specimens were observed, heard calling or collected despite intensive searching.

This record fills the gap between the Richtersveld and Augrabies records, and extends the distribution of this taxon further into the Northern Cape Province. It is believed that more breeding populations are to be found in the broad band of mountains directly South of the Orange River, between Upington and the Richtersveld. It is, however, a matter of timing one's visit to coincide with the sparse and infrequent rainfall events in this area.

Submitted by

E.H.W. Baard (Cape Nature Conservation, Private Bag 5014, Stellenbosch 7599, South Africa).



Marbled Rubber Frog

BUFO ROBINSONI (Branch and Braack 1995)

Paradise Toad

South Africa; Northern Cape Province; 2918BB; From temporary rock pools in smaller side kloof, to the North, joining the main gorge draining the Gamsberg crater, Gamsberg, Aggeneys, Bushmanland; 29°14'50"S; 18°58'30" E; 23 March 1999; 2918BB; From temporary rock pools at NE opening of main Gamsberg gorge, Gamsberg, Aggeneys,

Bushmanland; 29°13'50"S; 18°58'48"E; 26 March 1999; E.H.W. Baard, J. Irish and E.J. Baard; One adult (MMK/F/1168), one subadult (MMK/F/1169) and a juvenile specimen (MMK/F/1167) collected and deposited in the McGregor Museum, Kimberley.

This toad was described recently [Branch, W.R. and Braack, H. 1995. A new toad from Paradise. *Madoqua* 19(1): 15-23] from the arid mountains of the Vandersterberg, Richtersveld National Park and adjacent Namaqualand, Northern Cape Province. It is most closely related to the *Bufo gariiepensis* complex, and is characterised by its distinctive call, bright colouration and various morphological features, namely large eye, relatively smooth skin, weakly-developed tarsal fold, small tympanum and poorly-developed parotid glands. This taxon exhibits sexual dimorphism, as well as sexual dichromism, with females larger than males and males more brightly coloured in bright red-orange than females, respectively. *B. robinsoni* is a terrestrial species that appears to shelter among rocks and in rock cracks in rocky gorges at the type and other localities. According to Passmore and Carruthers (1995; *South African Frogs - a complete guide*. Southern Book Publishers) they breed in permanent and semi-permanent natural springs and waterholes in arid areas.

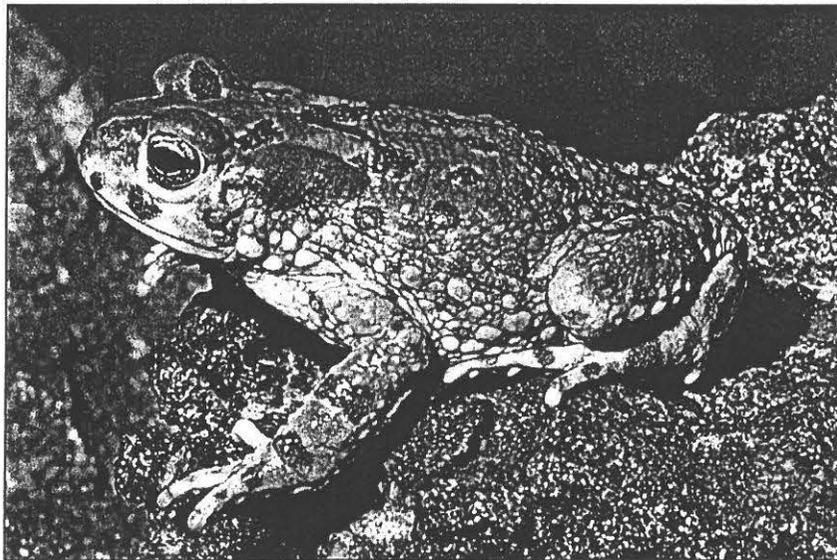
In an exciting, subsequent find, Lorenzo Prendini (pers. comm.) of the Percy FitzPatrick Institute for African Ornithology, University of Cape Town, while surveying for scorpions, found and reported *Bufo robinsoni* from underneath stones in a dry river bed in the Namies mountains on the gravel road between Aggeneys and Pofadder (approximately 2919AC; 29°16'S; 19°07'E), extending the range of this recently discovered taxon approximately 200 km to the East of the Richtersveld. The specimen is lodged with the University of the Western Cape, Bellville. This find was also reported by Harrison [1998; *Bird Numbers* 7(1): 16-17].

During a study on the potential impact of an open-pit zinc mine on the herpetofauna of the Gamsberg, Bushmanland, and following very good rains 10 days prior to the author's visit, toads and toadlets, fitting the above description were observed and collected from among poolside vegetation adjacent to very shallow temporary rock pools in firstly, a smaller side kloof, to the North, joining the main gorge draining the Gamsberg crater, and later, on the fringes and among vegetation around deeper temporary pools with sandy and rocky bottoms (average depth approximately 1 m) in the main gorge. Tadpoles, resembling typical *Bufo*, were also collected from the latter locality.

These records confirm the presence of this taxon in the Aggeney region, Bushmanland, and together with the Prendini record, extend the distribution range of this recently described species eastwards approximately 200 km. Similar to what Baard states elsewhere (see this issue), it is believed that more breeding populations of *B. robinsoni* are to be found in the broad band of mountains directly South of the Orange River between the Pofadder area in the East and the Richtersveld in the West. It is, however, a matter of timing one's visit to coincide with the sparse and infrequent rainfall events in this area.

Submitted by

E.H.W. Baard (Cape Nature Conservation, Private Bag 5014, Stellenbosch 7599, South Africa).



Paradise Toad

RECENT AFRICAN HERPETOLOGICAL LITERATURE: 20

W.R. Branch

Port Elizabeth Museum, P.O. Box 13147, Humewood 6013, South Africa

This survey covers the period 1999 to present, with a few earlier, overlooked papers. For brevity no articles in any HAA publication are included, neither are peripheral publications using *Xenopus laevis* (or any other African species) as a model in biochemical or developmental studies, etc. To assist members, and where known, the following annotations are given: if the distribution date is known to differ from the volume year this is included in brackets; an English title is given for papers in a foreign language; relevant African details are summarized from general articles; the names of new taxa are included.

- Akani, G.C., Luiselli, L. & Politano, E. 1999. Ecological and conservation considerations on the reptile fauna of the eastern Niger Delta (Nigeria). *Herpetozoa*. 11(3/4): 141-153.
- Akef, M.S.A. 1997. A comparison of haematological characteristics and oxygen consumption of *Rana levantina* and *Ptychocheilichthys mascareniensis* (Amphibia, Anura, Ranidae) in Egypt. *J. Afr. Zool.* 111(4): 249-259.
- Akef, M.S.A. 1998. Comparison of acclimatory pattern of two species of the genus *Bufo* in Egypt (Amphibia: Bufonidae). *J. Afr. Zool.* 112(1): 77-85.
- Akef, M.S.A., Abdel-Magied, S.S. & Tawfik, A.A. 1995. Seasonal comparison of carbohydrate localization in certain tissues and organs of two sympatric anuran species; *Bufo regularis* and *Bufo kassasi* (Bufonidae, Amphibia). *J. Egypt. Ger. Soc. Zool.* 18©: 201-218.
- Akef, M.S.A., Tawfik, A.A., & Abdel-Magied, S.S. 1995. Genetic and morphometric studies in the natural populations of the leopard toad; *Bufo regularis* Reuss, in Egypt (Bufonidae, Amphibia). *J. Egypt. Ger. Soc. Zool.* 18(A): 115-129.
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- Alexander, G.J. & Brooks, R. 1999. Circannual rhythms of appetite and ecdysis in the elapid snake, *Hemachatus haemachatus*, appears to be endogenous. *Copeia* 1999: 146-152.
- Angelici, F.M. & Luiselli, L. 1999. Aspects of the ecology of *Varanus niloticus* (Reptilia, Varanidae) in southeastern Nigeria, and their contribution to the knowledge of the evolutionary history of *V. niloticus* species complex. *Rev. Ecol. (Terre Vie)* 54: 29-42.
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- Barahona, F., Evans, S.E., Mateo, J.A., Garcia-Márquez, M. & López-Jurado, L.F. 2000. Endemism, gigantism and extinction in island lizards: the genus *Gallotia* in the Canary Islands. *J. Zool. Lond.* 250(3): 373-388.
- Bennet, D. 2000. Preliminary data on the diet of juvenile *Varanus exanthematicus* (Sauria: Varanidae) in the coastal plain of Ghana. *Herpetol. J.* 10(2): 75-76.

- Beyerlein, P. 1998. Studies on the significance of microdermatoglyphics in viperid systematics. I. The microdermatoglyphics of desert vipers (Squamata: Serpentes: Viperidae). *Herpetozoa*. 11(½): 79-86.
- Branch, W.R. 2000. Africa's Big Five.... Snakes. *Africa: Environ. Wildl.* 8(6): 52-60.
- Böhme, W. 1999. New records of SW Arabian monitor lizards, with notes on the juvenile dress of *Varanus yemenensis* Böhme, Joger, Schätti, 1989. *Mertensiella*. 11: 267-276.
- Broadley, D.G. 1997 (2000). A review of *Hemirhagerrhis viperinus* (Bocage) (Serpentes: Colubridae), a rupicolous Psammophine snake. *Madoqua* 19(2): 161-169. (elevation of *H. viperinus* to full species)
- Broadley, D.G., 1999. A new species of worm snake from Ethiopia (Serpentes: Leptotyphlopidae). *Arnoldia. Zimbabwe* 10(14): 141-144. (Description of *L. parkeri*)
- Broadley, D.G. & Broadley, S. . 1999. A review of the African worm snakes from south of latitude 12° S (Serpentes: Leptotyphlopidae). *Syntarsus* 5: 1-36. (Includes description of *L. jacobsoni* and specific validation of *L. incognitus* (southern Africa), *L. latifrons* (SW Angola), and *L. kafubi* (NW Zambia and adjacent regions)
- Broadley, D.G. & Schätti, B. 1997 (2000). A new species of *Coluber* from Northern Namibia (Reptilia: Serpentes). *Madoqua* 19(2): 171-174. (at last the long delayed description of *Coluber zebrenus* !)
- Brown, R.P, Znari, M., El Mouden, E. H & Harris, P.E., 1999. Estimating asymptotic body size and testing geographic variation in *Agama impalearis*. *Ecography* 22: 277-284.
- Caccone, A., Amato, G., Gratry, O.C., Behler, J. & Powell, J.R. 1999. A molecular phylogeny of four endangered Madagascar tortoises based on MtDNA sequences. *Mol. Phylog. Evol.* 12(1): 1-9.
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- De Smet, K. 1999. Status of Nile crocodiles in the Sahara Desert. *Hydrobiologica* 391: 81-86.
- Devaux, B. 1999. Au coeur du Sahel. *La Tortue* 48: 16-19. (In the heart of the Sahel - the S.O.S. Sulcata program to protect *Geochelone sulcata*).
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- Devaux, B. 2000. Mission au Soudan à la recherche des tortues *Geochelone sulcata*. *La Tortue* 49: 6-19. (Mission to Sudan; a survey for *Geochelone sulcata*).

- Dubois, A. 1995. Comments on the proposed conservation of the family-group name PHRYNOBATRACHINAE Laurent, 1941 (Amphibia, Anura). *Bull. Zool. Nomen.* 52(4): 344-345.
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(Colour variation in the *Mantella aurantiaca*-complex)
- Glaw, F. & Vences, M. 1999. Resurrection and redescription of *Mantidactylus tricinctus* from eastern Madagascar. *J. Herpetol.* 33(4): 639-647.
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THESES AND REPORTS

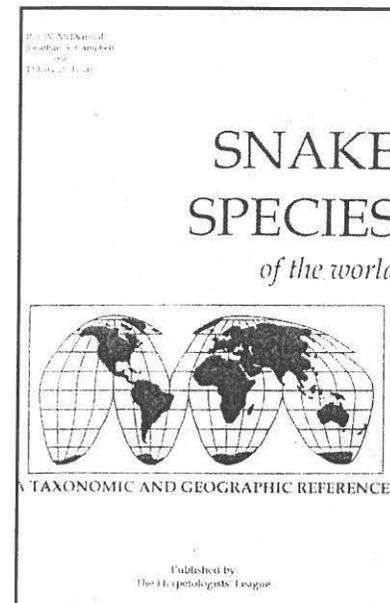
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HERPETOLOGICAL BOOK UPDATE FOR THE MILLENIUM

1. *The Diversity of Amphibians and Reptiles: An introduction.*

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 ISBN: 3-540-65056-3.
<http://www.cup.cam.ac.uk>

2. *SNAKE SPECIES of the world A TAXONOMIC AND GEOGRAPHIC REFERENCE*



Roy W. McDIARMID
 Jonathan A. CAMPBELL
 T'Shaka A. TOURE

Published by: The
 Herpetologists' League

About the Series: As a comprehensive catalogue of the snakes of the world, this series of three printed volumes will provide an inclusive treatment of some 18 families, 464 genera, and more than 2,700 species of living snakes. Inclusive information is arranged alphabetically within each family unit and consists of family, subfamily, genus, and species accounts. When complete, SNAKE

SPECIES of the world will update the last comprehensive treatment of snakes that was published by G. A. Boulenger, 1893-1896. Catalogue of the Snakes in the British Museum (Natural History). Each family or subfamily account includes a list of all synonymous names, an indication of type-genus, a distributional summary, and a comments section that includes literature references to recent treatments, different classifications, and other current issues of controversy. Each generic treatment includes a list of all synonymous names, an indication of the type-species for each name, a distributional summary, and comments on any issues of current or past controversy. Each species account includes

a complete synonymy of all names proposed for the species, including junior synonyms, homonyms, different combinations, emendations, nomina nuda, and other names. New combinations are indicated. Data for type specimens include museum number(s), status when known, the exact locality as stated in the original description, and any designations and appropriate locality restrictions. Distribution information includes occurrences by country when known, often with recent appropriate references. The comments section includes discussion and pertinent references to dates of publication, different spellings and other nomenclatural problems, information on type specimens and localities, and specific data on distributions.

Appendices are three and include lists of Literature Abbreviations, Museum Abbreviations, and CITES Appendix status. Each volume also has an index to all scientific names.

Volume 1

This first volume covers 681 species distributed among 15 families, as follows: **SCOLECOPHIDIA**: Leptotyphlopidae, Anomolepidae, and Typhlopidae; **ALETHINOPHIDIA**: Anomochilidae, Uropeltidae, Cylindrophiiidae, Aniliidae; **MACROSTOMATA**: Xenopeltidae, Loxocemidae, Pythonidae, Boidae (Boinae, Erycinae), Bolyeriidae, Tropidophiidae; and **CAENOPHIDIA**: Acrochoridae and Colubroidea, Viperidae (Azemiopinae, Causinae, Crotalinae, Viperinae). The 266 generic names are organized into 80 generic accounts, and the 4,288 species names into 681 species accounts. These totals are distributed among 21 recognized family groups for the 111 published names.

Publication date: 2 July 1999 ISBN (series): 1-893777-00-6

Pages: xi + 512 ISBN (volume): 1-893777-01-4

Cover: Hardcover

Size: 8 ½ x 11 in Price: US \$ 80.00

Volume 2

This volume will include most of the species in the family Colubridae. Scheduled for publication: year 2001

Volume 3

This volume will include the remaining species of Colubridae, plus Atractaspidae and Elapidae. It will also include and update of volumes 1 and 2, and a combined index. Scheduled for publication: year 2003

For Ordering Information contact: Entomological Information Services, P. O. Box 4350, Rockville, MD, 20849-4350, USA. E-mail: poole@clark.net

And for more information tap into the following website: <http://www.nearctica.com/nathist/reptile/list.htm>

3. *Monitors: The biology of varanid lizards*



Dennis KING & Brian GREEN

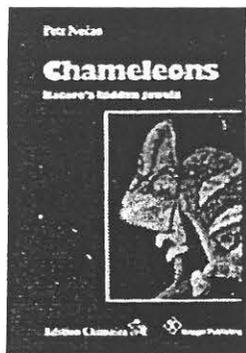
2nd Ed. 1999. 134pp.

In an easy to read style, *Monitors*, covers the fascinating natural history of these ancient animals, which includes the world's largest lizard, the Komodo dragon. Since the publication of the first edition, many major studies have been undertaken on Australian, Asian and African species of monitors and much fascinating new information regarding varanid lizards has emerged. For instance, research on *Varanus albigularis* has revealed that they can count, while work on *Varanus salvator* shows that they swim in the ocean when not searching for food. These findings plus other new information in areas as diverse as taxonomy, diet, breeding behaviour, and energetics have been incorporated into this text. Two new additions are a chapter on parasites of varanids and a section on foraging strategy.

Krieger Publishing Company

<http://www.krieger-publishing.com>

4. *Chameleons: Nature's hidden jewels*



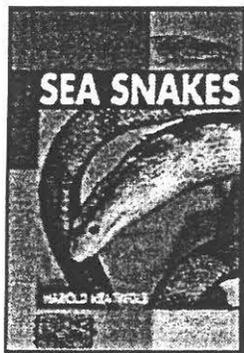
Petr NEČAS
English Ed. 1999. 348pp.

This English edition of *Chameleons* was revised and translated from the very successful German edition published in 1995. It introduces chameleons in all their beauty and curiosity and puts together a mosaic of "Chamaeleonology" through individual chapters written on the basis of modern herpetology and herpetoculture. This book is partly a compilation of published information and partly summary of unpublished data from various breeders, biologists and veterinarians, with the author's view reflected on each particular topic. A complete bibliography containing a majority of available literature on chameleons is also included, along with more than 280 colour photos and 45 black and white drawings and photos.

Krieger Publishing Company

<http://www.krieger-publishing.com>

5. *Sea Snakes*



Harold HEATWOLE
2nd Ed. 1999. 166pp.

The sea is a habitat alien to most reptiles, and the adaptation of sea snakes to a marine existence is a fascinating chapter in biology. *Sea Snakes* describe the varieties and distributions of sea snakes, how they go about their daily lives underwater, what they eat and what eats them, and how they reproduce and grow. It also discusses how sea snakes cope with excess salt and scarcity of freshwater and how they adjust to diving at depths and enduring long periods without breathing. The nature of their venom and how it functions in subduing large prey is also explained. Sea snakes interact with humans in both beneficial and harmful ways. Harold Heatwole explains these and also discusses how we can best share the world with these beautiful and marvelous creatures.

Krieger Publishing Company

<http://www.krieger-publishing.com>

NEWS AND ANNOUNCEMENTS SYMPOSIA

1. "World Congress of Herpetology"

Sri Lanka – December 2001

Details in the next issue of *African Herp News*

2. First Announcement and Call for Abstracts:

Big European Symposium on Turtles and Tortoises

Vienna, 15 - 20 January 2002

As announced in Salzburg 1997, to celebrate its 10th birthday, the SFÖ and other friendly European Turtle Clubs will organise a five-day symposium on keeping and breeding turtles and tortoises. In every morning and afternoon session 8 lectures will be given, special evening sessions will focus on travelogues, and a large number of excursions and poster sessions is also scheduled. Each day will focus on one continent and captive and conservation breeding of its turtles and tortoises (Africa/Madagascar, North and South America, Europe and the Mediterranean, Asia/Australia). On Sunday morning there will be space for general papers focusing on conservation projects, common projects of the participating turtle clubs, etc.). All together 70 to 80 lectures will be given with the breeding of more than 120 species of turtles and tortoises being presented!

A detailed proceedings book will be published in order to summarize the results of the symposium. Therefore it is absolutely necessary that the speakers send a short abstract of their lecture to the editors of EMYS until the end of 2000 and that they complete their final manuscripts until no later than mid 2001. Only then will lecture be accepted and published in the final program in mid 2001. Exceptions can only be made for lectures of breeding results achieved no earlier than 2001. Conference languages will be English and German. Special headsets being distributed to every participant will allow you to follow the actual lecture in the second language, respectively through simultaneous translations. As the conference approaches, a number of internationally well known specialists fortunately have promised to come and to be in the chair of the sessions focusing on continents.

If you are interested in giving a lecture, please do not hesitate and send a letter, a fax or an email to:

Dr. Harald Artner, Maria Ponce 32, A-3454 Sitzenberg-Reidling
 Fax: +43-2276-6140, Email: 113142.3232@compuserve.co

(Details such as: payments, partial compensation of travel costs, etc. were not available at the time of going to press)

3. Seventh HAA Symposium

Details in the next issue of African Herp News
 9 – 12 September 2001

4. 21st Annual Sea Turtle Symposium

Philadelphia, PA, USA.
 23 – 28 February 2001
<http://www.seaturtle.org>

OTHER NEWS

NEW CD'S

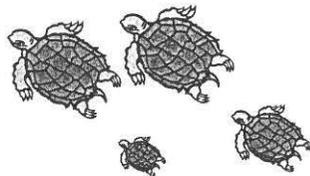
Interested in Turtles?

Then you need to purchase the latest CD version of *Turtles of the World*. Available from Springer-Verlag, NY.

Atten: Order dept

333 Meadowlands Parkway
 Secaucus, NJ, 07094, USA
 Fax: +201- 348-4505
 Price: EUR 99.95 / USA \$ 150.00

The URL is: <http://www.springer-ny/catalog/emedial/wbd.html>



RESEARCH NEWS

(anybody wishing to contribute to this section please contact the Editor)

Tortoise Research Program At The University Of The Western Cape

Although South Africa has the richest diversity of tortoise species in the world, very little is known about their ecology and physiology. This motivated Dr Retha Hofmeyr, University of the Western Cape, and Dr Ernst Baard, Cape Nature Conservation, to initiate a research program on South African tortoises in 1997. The research group at UWC has concentrated on three tortoise species, but will include more species in the near future.

The endangered geometric tortoise, *Psammobates geometricus*, features prominently in this program. The main focus has been on reproductive physiology and ecology, but movement patterns and population dynamics have also received attention. Two international scientists, Dr Gerald Kuchling, University of Western Australia and Dr Brian Henen, University of California, Los Angeles, recently joined this program and will be involved in studies on the health profile, diet, energetics and reproductive biology of this species.

Chersina angulata (angulate tortoise) populations in the West Coast National Park and on Dassen Island have been studied over the past three years. Several post-graduate students and post-doctoral fellows are involved in this research, which includes studies on the reproductive ecology and physiology, diet and nutrition, population structure and dynamics, movement and activity patterns, and population genetics. Several projects have been completed and very soon a wealth of new information will be published on this species. Four members of the UWC group presented their results at the ASIH meeting in Mexico, June 2000. New projects, which have been initiated this year, include a baseline study of health, and aspects of water, energy and heat balance.

Homopus areolatus (parrot-beak tortoise) is the latest species to be included in our program. We have initiated a study on its reproductive biology as well as health profile. However, our aim is to investigate several aspects of its physiology and ecology, in order to provide solid information on this species too.

Any person interested in our research programme, or who can supply us with information on the species concerned, is welcome to contact Retha Hofmeyr by email (mdhofmeyr@uwc.ac.za) or phone (+27 21 959 2313).

PRESS RELEASE

Dragons make it to the national zoological gardens of South Africa

The two Komodo Dragons now housed at the National Zoo are the only ones of their kind in South Africa and on the African continent. Following the donation of these highly-prized Komodo dragons by Indonesian President Suharto to former president Nelson Mandela in 1997, suitable accommodation had to be built.

Design criteria for the accommodation for these highly vulnerable, yet dangerous Komodo dragons, posed a number of challenges. Some of the interesting specifications include:

1. Climate conditions necessitate that all spaces within the Komodo dragon display have to be air-conditioned and humidity-controlled, in order to simulate the reptiles natural environment. The daytime temperature remains at a constant 32° C and a constant 28° C at night. Various basking "hotspots" were also created and a temperature of 42° C is maintained at these spots.
2. Due to veterinary restrictions, Komodo dragons are not allowed to come into contact with any insects. To this end, all their air intakes have double filters. Double access doors to service areas are sealed all the way around and electronic insect-killing apparatus have been installed in the service area.
3. Water from the display area is kept separate by means of different dams and filters, while washed river sand is used in the basking areas.
4. A separate plant and store room, a food preparation and medical examination facility and an office for the supervisor have been provided.

Komodo dragons have the following biological traits:

- they are the world's largest lizards
- they are carnivorous and they scavenge for carrion

- the male Komodo can grow to a length of 3 metres
- they weigh up to 130 kilograms
- the largest Komodo ever captured was 3.13 metres long and 166kg
- there are \pm 3 500 Komodo dragons left in the wild
- they originate from the Komodo Island in Indonesia
- they can run at a speed of up to 18km/h over short distances
- their saliva contains poisonous bacteria which can kill
- they can eat up to 80% of their own body weight in one meal
- their longevity is approximately 25 years

Facts on the National Zoo's Komodo dragons

- both male and female eat whole rats as a staple diet
- they are fed egg yolks for calcium and multivitamins
- the temperature of their enclosure is controlled electronically
- the male was born on 19 July 1995, and is 1,9 metres in length
- the female was born on 19 July 1995, and is 1,7 metres in length

Submitted by

Angeline Cloete, Media Officer, National Zoological Gardens, South Africa.

GREECE TORTOISE - ATHENS July 28 Sapa-AFP

Six-legged tortoise found in Greece

A tortoise with six legs has been discovered in the north of Greece, an animal protection agency said on Friday. The adult tortoise, about 25 centimeters (10 inches) long, is probably the result of a genetic anomaly, said Maria Ganoti, the director of the agency located at Egin, an island close to Athens. Before being transferred to the agency's center, the tortoise was examined by biologists at the University of Salonika in northern Greece, who have not yet released their results, Ganotti added. The rare specimen was found this week by a villager in the state of Evros, in the north-east of the country.

Interesting web addresses:

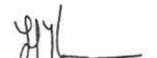
- Coming soon – the new HAA Website
<http://www.sun.ac.za/zoology/haa>
- Have a good look at Jason's Snakes and Reptiles Website for facts and figures, ordering of books and CD's, related herp sites and more...
<http://www.snakesandreptiles.com>
- NEW! Maps of Michigan's Reptiles and Amphibians, USA:
<http://www.ummx.lsa.umich.edu/herps/miherps/index.html>
- The International Society for the History and Bibliography of Herpetology:
<http://www.teorekol.lu.se/~rana/ISHBH>

HERPETOLOGICAL ASSOCIATION OF AFRICA

FINANCIAL STATEMENTS
for the year ended 28 February 1999

The financial statements set out on pages 2 to 4 were approved on and are hereby signed to that effect.


Chairman


Treasurer

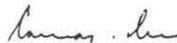
**REPORT OF THE INDEPENDENT AUDITORS TO THE MEMBERS OF
HERPETOLOGICAL ASSOCIATION OF AFRICA**

We have audited the annual financial statements set out on page 2 to 4. These financial statements are the responsibility of the members. Our responsibility is to report on the financial statements.

We conducted our audit in accordance with generally accepted auditing standards. These standards require that we plan and perform the audit to obtain reasonable assurance that, in all material respects, fair presentation is achieved in the financial statements. An audit includes an evaluation of the appropriateness of the accounting policies, an examination, on a test basis, of evidence supporting the amounts and disclosures included in the financial statements, an assessment of the reasonableness of significant estimates and consideration of the appropriateness of the overall financial statement presentation. We consider that our audit procedures were appropriate in the circumstances to express our opinion presented below.

In common with similar organisations, it is not feasible for the organisation to institute accounting controls over cash collections prior to the initial entry of the collections in the accounting records. Accordingly it was impracticable for us to extend our examination beyond the receipts actually recorded.

Except for the effects of any adjustments which might have been necessary had it been possible for us to extend our examination of cash collections, in our opinion these financial statements fairly presents the financial position of the Herpetological Association of Africa at 28 February 1999 and the results of its operations for the year then ended.



Cassidy & Associates
Chartered Accountants (SA)
Registered Accountants and Auditors
DURBAN

HERPETOLOGICAL ASSOCIATION OF AFRICA

INCOME STATEMENT
for the year ended 28 February 1999

	1999	1998
Income		
Interest	6,502	6,626
Donations	211	705
Sale of journals	1,356	1,730
Subscriptions	16,969	16,784
Symposium	150	0
	<u>25,188</u>	<u>25,845</u>
Expenses		
Audit fees	0	400
Proceedings	0	14,114
Journals	8,033	17,891
Newsletters	5,160	4,129
Bank charges	113	27
Office expenses	1,823	2,929
	<u>15,127</u>	<u>39,490</u>
Net surplus (deficit) for the year	<u>10,060</u>	<u>(13,645)</u>

HERPETOLOGICAL ASSOCIATION OF AFRICA

BALANCE SHEET - 28 February 1999

	Note	1999	1998
Funds Employed			
Accumulated funds			
Balance at beginning of year		49,580	63,225
Net (deficit) surplus for the year		10,060	(13,645)
		<u>59,640</u>	<u>49,580</u>
Employment of funds			
Current assets			
UBS - Bloemfontein		0	0
UBS - Durban		11,960	9,471
Standard Bank - Bloemfontein		24,947	21,628
Volskas - Durban		25,253	18,881
Cash on hand		0	0
		<u>62,161</u>	<u>49,980</u>
Less:			
Current liabilities			
Accounts payable		2,521	400
		<u>2,521</u>	<u>400</u>
Net current assets		<u>59,640</u>	<u>49,580</u>

HERPETOLOGICAL ASSOCIATION OF AFRICA
MEMBERSHIP FEES AS AT 1 JANUARY 1999

AFRICAN MEMBERSHIP

ORDINARY MEMBERSHIP

1 year membership R70.00. Submit in Rand

3 year membership R190.00. Submit in Rand

STUDENT:

1 year membership R50.00. Submit in Rand.

OVERSEAS MEMBERSHIP

DOLLAR PAYMENTS

1 year membership \$30.00. Submit in US Dollars by personal cheque or money order.

3 year membership \$80.00. Submit in US Dollars by personal cheque or money order.

Note: Please, no U.S. "postal" money orders, U.S. Dollar "Eurocheques" or Rand Eurocheques. Members in Europe should submit the DM equivalent by Eurocheque.

RAND PAYMENTS FROM OVERSEAS

1 and 3 year memberships - Rand equivalent of US\$ rate payable by bankers draft or money order (NOT postal order).

Owing to numerous banking problems, members are kindly requested not to submit payments directly to any Building Society or Bank Account. All payments should be made out to the Herpetological Association of Africa and be submitted directly to:

THE SECRETARY
HERPETOLOGICAL ASSOCIATION OF AFRICA
P. O. BOX 20142
DURBAN NORTH 4016
SOUTH AFRICA