NUMBER 65 | JULY 2017

AHN

AFRICAN HERP NEWS

HAA | HERPETOLOGICAL ASSOCIATION OF AFRICA

www.africanherpetology.org

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, and short communications – subject to peer review) and African Herp News, the Newsletter (which includes short communications, natural history notes, book reviews, bibliographies, husbandry hints, announcements and news items).

NEWSLETTER EDITOR'S NOTE

Articles shall be considered for publication provided that they are original and have not been published elsewhere. Articles will be submitted for peer review at the Editor's discretion. Authors are requested to submit manuscripts by e-mail in MS Word '.doc' or '.docx' format.

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

COVER PHOTOGRAPH: *Atheris squamingera* - Photograph by: Luke Verburgt (second prize - photography competition 13th HAA Conference).

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AHN EDITORIAL

It is a tremendous pleasure and honour that I take on the role of Editor of *African Herp News* (AHN). There is no doubt that it is a challenging prospect considering the AHN has a long tradition and long list of outstanding scientists and herpetologists who have held the position before me, starting with Bill Branch in 1983 and now ending with Gavin Masterson, from whom I take the reins. Each of the previous editors has improved the presentation of the newsletter in some way and ensured it maintains the highest standards. I would like to take this opportunity to thank of all of these editors for their service and contributions:

Issues	Years	Editor
1-4	1983-1984	Bill Branch
5-9	1985-1987	J. H. van Wyk
10-12	1987-1989	Johan Marais
13-26*	1990-1997	Mike Bates
27-30	1998-1999	Angelo Lambiris
31-33, 35	2000-2002	Alison Leslie
34	2002	Louise Visagie
36	2003	Michael Cunningham
37	2004	Richard Boycott
38-48	2005-2009	Angelo Lmabiris
49-59	2010-2013	Bryan Maritz
60-61	2013-2014	Warren Schmidt
62-64	2015-2017	Gavin Masterson

*In 1993, the name of the newsletter changed from *Herpetological Association of Africa Newsletter* to *African Herp News.*

Being new to the role of editor, I have had to experience a steep learning curve. However, through the assistance of HAA Chair, Graham Alexander, and the numerous reviewers I have called upon in the preparation for this issue, this has been a very educational, pleasant and rewarding experience. I truly hope this issue will be my first of many.

Although there have been some delays in getting the newsletter out to members in recent issues due to various logistical issues, I am committed to ensuring that we provide best possible service to our authors and readers. This will surely be facilitated by the new electronic format, which started last issue (64), thanks to the hard work and dedication of Graham Alexander and Ashadee Kay Miller. I am pleased to report that we appear to be fully caught up on all of the back-logged submissions. However, if one of your submissions has somehow gone unattended, please do contact me to rectify this.

Moving forward, I encourage readers (academics, field and research assistants, students, consultants, professional and amateur herpetologists, among others) to submit articles that will help advance the knowledge-base of African herpetology. I often hear of people recounting stories of the varied and unique herpetofauna that they came across during field trips or hikes through the African landscape – new behaviours, new morphs, new localities – yet, much of this goes undocumented. *African Herp News* is the perfect forum to share this information, and in doing so, potentially stimulate future herpetological research. I would also like to put forward the idea of having the occasional themed issue. If anyone reading this Editorial is stimulated to suggest a theme, please contact me. I would be happy to work with potential guest editors to develop their ideas. Lastly, I call upon readers to submit potential cover photographs that are striking, with interesting subject matter, composition and exposure. Without your contributions, there wouldn't be a newsletter, so please share your talent and work.

I hope you all enjoy this read!

Jessica da Silva
Editor

NOTEWORTHY RECORDS OF AMPHIBIANS AND REPTILES FROM MOZAMBIQUE

J. L. WEINELL, D. M. PORTIK & A. M. BAUER

Mozambique harbours a highly diverse herpetofauna, with more than 280 reptile and 82 amphibian species known from this country (Schneider *et al.* 2005; Ohler & Frétey 2015). Nevertheless, the herpetofauna of Mozambique remains poorly documented compared to other areas of southern Africa (Pietersen 2014). Although the region south of the Zambezi River is routinely included in works summarizing the herpetofauna of southern Africa (e.g., Branch 1998; du Preez & Carruthers 2009), published point locality records are relatively rare. Records north of the Zambezi are especially scarce and have focused on areas of higher elevation (Branch 2005; Bayliss *et al.* 2010) or coastal forests (Pascal *et al.* 2011). Additional scattered records from both northern and southern Mozambique are vouchered by museum specimens (D.G. Broadley, in litt.), but the majority of these have never been published in either faunal papers or taxonomic revisions.

During July and August 2011, Daniel M. Portik conducted short opportunistic herpetological surveys across several provinces of Mozambique, including Maputo, Inhambane, Zambézia, and Niassa. Specimens were hand-captured during diurnal and nocturnal visual surveys. Time limitations precluded the use of pitfall traps or other standardised collecting techniques. Voucher specimens and tissue samples are deposited in the Museum of Vertebrate Zoology (MVZ) at the University of California, Berkeley, with a subset of voucher specimens deposited at the Natural History Museum of Maputo. The primary survey sites of the trip were located on the Lichinga Plateau and Gurué Highlands, specifically Serra Jeci massif and Mt. Namuli, respectively. Results from these two major collecting sites have already been published (Portik *et al.* 2013a,b; Loader *et al.* 2015), but several records from Maputo, Inhambane, Zambézia, and Niassa Provinces have not yet been reported. In light of the paucity of published records for even common species in Mozambique, we here summarize these data. Additionally, for each locality and each species, we report the distance to the nearest previously published locality. We did not comment on Global Biodiversity Information Facility (GBIF) records that have not been otherwise cited in the literature because these records may include taxon identity errors as well as georeferencing errors, and have been vetted neither by us nor by the peer-review process.

NIASSA PROVINCE

Cuamba Town, Hotel Vision 2000 and Public Gardens (-14° 48′ 0.5″, 36° 32′ 27.1″, 586 m).

FAMILY: GEKKONIDAE

Chondrodactylus turneri
(Gray 1864)
Turner's Thick-toed Gecko

Turner's Thick-toed Gecko (Fig. 1), MVZ 265919–25, nearest record is 19 km NE, from Mitacué Mountain near Nova Freixo (Blake 1965).

Hemidactylus platycephalus
Peters 1854
Tree Gecko

Tree Gecko, MVZ 265960–68, located 34 km W of Lurio, the nearest published locality of this species (Broadley 1977).

Lygodactylus capensis
(Smith 1849)
Cape Dwarf Gecko

Cape Dwarf Gecko, MVZ 266121–28, closest published records are 45 km E, near Mutali (Blake 1965).

FAMILY: SCINCIDAE

Trachylepis striata
(Peters 1844)
African Striped Skink

African Striped Skink, MVZ 266184–87, closest records are 90 km SE, from the Mt. Namuli Grasslands (Portik *et al.* 2013a).

ZAMBÉZIA PROVINCE

Mocuva Town, Pensão Cruzeiro Parking Lot (-16° 50′ 18.2″, 36° 59′ 9.8″, 88 m).

FAMILY: GEKKONIDAE

Hemidactylus mabouia
(Moreau de Jonnés 1818)
House Gecko

House Gecko, MVZ 265929–30, closest record is 103 km NW, near Liciro (Broadley 1977).

Gorongosa Town, Gas Station (-18° 40′ 10.4″, 34° 4′ 42.1″, 291 m).

Figure 1. Turner's Thick-toed Gecko (Chondrodactylus turneri) from Cuamba Town, Hotel Vission 2000, Niassa Province, Mozambique.

SURVEYS

Lygodactylus capensis (Smith 1849) Cape Dwarf Gecko

Cape Dwarf Gecko, MVZ 266119, closest record is 16 km N, at the base of Gorongosa Mountain (Blake 1965).

Gorongosa Town, Hotel Azul (-18° 40' 57.7", 34° 4' 14.2", 365 m).

Hemidactylus mabouia (Moreau de Jonnés 1818) House Gecko

House Gecko, MVZ 265943–46, closest record is 17 km N, from Gorongosa Mountain (Broadley 1977)

Lygodactylus capensis (Smith 1849) Cape Dwarf Gecko

Cape Dwarf Gecko, MVZ 266135–36, closest record is 16 km N, at the base of Gorongosa Mountain (Blake 1965).

FAMILY: BUFONIDAE

Sclerophrys gutturalis (Power 1927) African Common Toad

African Common Toad, MVZ 265867, previously recorded 17 km N, from Gorongosa Mountain, by Poynton & Broadley (1988).

Road to Gorongosa NP, (-18° 57' 45.3", 34° 10' 11.0", 118 m).

FAMILY: VARANIDAE

Varanus albigularis Daudin 1802 White-throated Monitor

White-throated Monitor, MVZ 266230, located 34 km NNW of Vila Machado, the closest previously published locality for this species (Bayless 2002).

INHAMBANE PROVINCE

Vilanculos, Varanda Resort (-22° 0' 19.6", 35° 19' 23.5", 10 m).

FAMILY: GEKKONIDAE

Hemidactylus platycephalus Peters 1854 Tree Gecko

Tree Gecko, MVZ 265957–59, these are the first records of *H. platycephalus* from Vilanculos, despite a previous survey of amphibians and reptiles from this region (Jacobsen 2010). However, records from Nhamanene Lake (Broadley 1977), San Sebastian Peninsula (Jacobsen 2010), and the Bazaruto Archipelago (Broadley 1990, 1992) are close (50 km SSE, 19 km SE, and 16 km NE from the new records, respectively) to Vilanculos.

Lygodactylus capensis (Smith 1849) Cape Dwarf Gecko

Cape Dwarf Gecko, MVZ 266115–18; these are the first published records of *L. capensis* from Vilanculos, despite a previous survey of amphibians and reptiles from this region (Jacobsen 2010). However, records 16 km NE, from the Bazaruto Archipelago (Broadley 1990, 1992), and 19 km SE, from San Sebastian Peninsula (Jacobsen 2010) are close to Vilanculos.

FAMILY: SCINCIDAE

Panaspis wahlbergii (Smith 1849) Wahlberg's Snake-eyed Skink

Wahlberg's Snake-eyed Skink, MVZ 266147, the nearest records are 16 km NE, from the Bazaruto Archipelago (Broadley 1990, 1992), and 19 km SE, from San Sebastian Peninsula (Jacobsen 2010); the taxonomic assignment of this individual was supported by phylogenetic analysis of DNA data (Medina *et al*., 2016).

Trachylepis striata (Peters 1844) African Striped Mabuya

African Striped Mabuya, MVZ 266181-83, closest previous record is 20 km to the SE, from San Sebastian Peninsula, (Jacobsen 2010).

FAMILY: BREVICIPITIDAE

Breviceps cf. *adspersus* Peters 1882 Common Rain Frog

Common Rain Frog (Fig. 2), MVZ 265908, genetic data support the assignment of this individual to the *Breviceps adspersus/ mossambicus* group, but assignment at the specific level is not yet clear (S. V. Nielsen, pers. comm.); closest previous record

Figure 2. Common Rain Frog (*Breviceps cf. adspersus*) from Vilanculos, Varanda Resort, Inhambane Province, Mozambique, on 15/8/2011.

is 18 km W, from Pambarra (Poynton & Broadley 1985).

Maxixe, Parque de campismo (-23° 51′ 49.7″, 35° 21′ 1.0″, 10 m).

FAMILY: GEKKONIDAE

Hemidactylus platycephalus
Peters 1854
Tree Gecko

Tree Gecko, MVZ 265947-56, 265968), the nearest published locality is 74 km N, at Rio Das Pedras (Broadley 1977); Maxixe is the southernmost record for the species.

Lygodactylus capensis
(Smith 1849)
Cape Dwarf Gecko

Cape Dwarf Gecko, MVZ 266113-14; the nearest published locality is 191 km to the North, on the San Sebastian Peninsula (Jacobsen 2010).

MAPUTO PROVINCE

Ponta do Ouro, Casa de Sequeira (-26° 50′ 52.0″, 32° 53′ 2.0″, 25 m).

FAMILY: AGAMIDAE

Acanthocercus atricollis
(Smith 1849)
Black-necked Agama

Black-necked Agama, MVZ 265804–05, nearest Mozambique record is 100 km N, at Delagoa [Maputo] Bay (Fitzsimons 1943).

FAMILY: CHAMAELEONIDAE

Chamaeleo dilepis
Leach 1819
Flapneck Chameleon

Flapneck Chameleon, MVZ 265911, nearest Mozambique record is 100 km N, Maputo (Fitzsimons 1943).

FAMILY: GEKKONIDAE

Hemidactylus mabouia
(Moreau de Jonnés 1818)
House Gecko

House Gecko, MVZ 265926–28, nearest Mozambique record is 88 km N, from Inhaca Island (Broadley 1977).

FAMILY: SCINCIDAE

Trachylepis striata
Peters 1844
African Striped Skink

African Striped Skink, MVZ 266180, closest Mozambique record is 100 km to the N at Maputo (Broadley 1962).

FAMILY: BUFONIDAE

Sclerophrys gutturalis
(Power 1927)
African Common Toad

African Common Toad, MVZ 265837–38, previously recorded from Ponta do Ouro by Poynton & Broadley (1985).

FAMILY: BREVICIPITIDAE

Breviceps cf. adspersus
Peters 1882
Common Rain Frog

Common Rain Frog, MVZ 265909, genetic data support the assignment of this individual to the *Breviceps adspersus/ mossambicus* group, but assignment at the specific level is not yet clear (S. V. Nielsen, pers. comm.); previously recorded from Ponta do Ouro by Poynton & Broadley (1985). All of these species are also common immediately adjacent to Ponta do Ouro in Maputoland, KwaZulu Natal (Poynton 1980; Bruton & Haacke 1980; Bates *et al.* 2014).

ACKNOWLEDGMENTS

All specimens were collected under the regulations of a research permit administered by the Universidade Eduardo Mondlane Natural History Museum of Maputo (No. 04/2011 and 05/2011) and a credential administered by the Ministry of Agriculture. Herpetological specimens were exported under CITES Permit No. MZ-0354/2011 provided by the Ministry for the Coordination of Environmental Action. We thank Lucília Chuquela (Director of the Natural History Museum), Mandrate Oreste Nakala (Deputy National Director of the Ministry of Agriculture), Marcelino Foloma (National Directorate of Lands and Forests), Emilia Veronica Lazaro Polana (Department of Environmental Management), and the Ministry of Tourism National Directorate of Conservation Areas for granting permits and for logistical assistance. Additionally, we thank Stuart V. Nielsen (Marquette University, Milwaukee) for information on the genetic assignment for the Breviceps individuals. This field research was funded by a Mohamed bin Zayed Species Conservation Fund awarded to Jay P. McEntee (Project #11251846) and by the Museum of Vertebrate Zoology (University of California, Berkeley).

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LAMPROPHIIDAE

Lamprophis guttatus
(A. Smith 1844)
Spotted House Snake

DIET

J. M. TAFT, J. GREUEL & B. MARITZ

At approximately 12:00 PM on 22 July 2015, a Spotted House Snake (*Lamprophis guttatus*) was captured on an outcrop in Nuwerus (31° 10' 4.0080'' S, 18° 20' 54.6720'' E, 465 m. a.s.l.) in the Western Cape, South Africa. The Spotted House Snake (SVL + TL: 277 + 59 mm) was found within a rock crevice, with the majority of its body hidden and only the mid-sections exposed. Following capture, the snake regurgitated a small *Karusasaurus polyzonus* (SVL: ≈ 48 mm). The prey item was identified on the basis of its smooth dorsal scales, two rows of spiny scales in each tail whorl, and the observation that *K. polyzonus* was abundant in the area (Branch 1998; Fig. 1). The specimen showed advanced digestion around the head suggesting that it was consumed headfirst. Our observation confirms that *L. guttatus* individuals are feeding during winter months in this region and strongly suggests the use of regional heterothermy as a behavioural mechanism to safely facilitate digestion under these conditions.

This is the first confirmed record of predation of a cordylid lizard by *L. guttatus*. The diet of these snakes is known to consists of geckos, skinks, and lacertids, as well as rodents (Branch 1998, Marais 2004). Predators rarely consume cordylid lizards due to dermal armour and caudal spines (Parusnath 2012, Broeckhoven *et al.* 2015). However Rinkhals (*Hemachatus haemachatus*) are known to consume neonate Sungazers, Smaug giganteus, without any indication of internal damage from the lizard (Parusnath 2012) suggesting that neonates cordylids are susceptible to predation before spines and armour ossify.

ACKOWLEDGEMENTS

We thank Juan-Jacques Forgus, Dylan Moodaley, Leila Nefdt, Yasmeen Parker, and Rudolph Philander for their contribution in the field.

Figure 1. Partially digested *Karusosaurus polyzonus* regurgitated by captured *Lamprophis guttatus* near Nuwerus, WC, South Africa. Bryan Maritz.

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MICROHYLIDAE

Phrynomantis affinis
(Boulenger 1901)
Spotted Rubber Frog

MAXIMUM SIZE & DEFENSIVE DISPLAY

W. R. BRANCH & W. CONRADIE

On 1 June 2010 a specimen of *Phrynomantis affinis* (PEM A9478, Fig. 1) was collected from 'Beehive Crossing' on a mine track to the south of the Kalumbila Mine compound, 110km west of Mutanda, North Western Province, Zambia (12° 15' 25.1" S, 25° 19' 21.8" E; 1225 m a.s.l.) by Bill Branch. The very large adult was encountered at approximately 11h00 moving in leaf litter in narrow riparian forest. On being spotted it gave a defensive display by lowering its head, inflating the body, and slowly raising the rear part of its body by extending the hindlimbs. The bright red spots on the black body were very visible, as was the dappled white skin of the thighs (Fig. 2). The specimen conforms to *P. affinis* in possessing scattered red spots dorsally that form an irregular dorsolateral row only on the neck and forebody; in that the tips of the fingers are minimally expanded into discs; and in having a more rounded, rather than blunt snout. In addition, previous descriptions have not noted the expansive skins folds on the sides of the neck and limb insertions that are not present in 'sleeker' *P. bifasciatus* or *P. annectans.* The ventrum is also paler than in *P. bifasciatus*, being light grey with vague darker blotches, rather than having smaller

Figure 1. Adult *Phrynomantis affinis* collected from north-western Zambia.

Figure 2. In situ views of *Phrynomantis affinis* on the forest floor in a defensive display.

pale grey areas on a mainly black or dark grey ventrum as in *P. bifasciatus*. The specimen measured 67.7 mm snout-urostyle length (SUL). Previous maximum length recorded was 66 mm from Ombujomatemba, Namibia (Poynton 1964). This represents an increase of 2.5% in known maximum size.

Later, after handling the frog during photography, stinging occurred in small cuts on the photographer's hands, presumably from frog skin toxins, although no obvious secretions were noted. The skin toxins of *Phrynomantis* are frequently cited as toxic to other frogs in the popular literature (see references in Pantanowitz *et al.* 1998), and the experienced frog collector soon learns not to include rubber frogs with other frogs in containers. To date, there has only been one case of human toxicity from the genus (Jaeger 1971), although the stinging sensation in cuts after handling this species appears to support the potential for further cases.

Phrynomantis hoeschi Parker 1940 was described from "Ombujamatemba (1450 m a.s.l.), near the Waterberg, S. W. Africa", Namibia, and distinguished from *P. affinis* by its larger size, relatively smaller eye (eye diameter 7.7 % of snout-urostyle length (SUL); 5.5 % in holotype of *P affinis* from Pweto, DRC), and rounded rather than irregular dorsal markings. Poynton (1964) synonymised Parker's new species with *P. affinis* based on an investigation of a single Ngoma (Zambia) specimen, that was intermediate geographically between the type localities of *P. affinis* and *P. hoeschi*, as well as in the putative diagnostic features. In the PEM specimen the eye diameter is 6 % of the SUL, again intermediate between that of *P. affinis* and *P. hoeschi.* Poynton (1964) and Poynton & Broadley (1985) remained hesitant about the specific status of *P. affinis.* Given the rarity of the species (which is known from < 10 specimens), and the vagueness of the putative diagnostic features of both *P. affinis* and *P. hoeschi*, this confusion may be best addressed by a genetic analysis.

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GERRHOSAURIDAE

Tetradactylus seps
(Linnaeus 1758)
Short-legged seps

DIET

W. CONRADIE, W. R. BRANCH & D. G. HERBERT

On 8 October 2015 a Short-legged Seps, *Tetradactylus seps* (Linnaeus, 1758), was caught under a decaying pine log in the Hogsback area, Eastern Cape, South Africa (32° 32' 50.24" S, 26° 54' 51.59" E; 1411 m a.s.l.). While handling the lizard it regurgitated a recent prey item (Fig. 1) that was later identified as the introduced terrestrial planarian, *Bipalium kewense* Moseley, 1878. Native to southeast Asia, this species has been introduced globally (Winsor 1983). It is predatory, feeding on earthworms, slugs, and other smaller invertebrates, that it may kill with the potent neurotoxin tetrodotoxin (Stokes *et al*. 2014). The possession of tetrodotoxins may also deter potential predators of *Bipalium* spp., and introduced flatworms were distasteful to native American salamanders (Stokes *et al*. 2014).

Very little is known of the diet of *Tetradactylus* species. Branch (1998) lists grasshoppers and other insects in the diet of the group, but no direct studies on stomach contents of *Tetradactylus* have been conducted. This observation is the first report of this species actively feeding on a soft-bodied planarian, although it may have

Figure 1: *Tetradactylus seps* with a regurgitated terrestrial introduced planarian. Photo: Christine Coppinger.

been an opportunistic predation event. Regurgitation of the prey immediately on capture of the seps may also indicate toxic effects of the prey on the lizard. The potential impact of introduced toxic planarians on South African small vertebrates, particularly lizards and frogs, has not been assessed.

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CHAMAELEONIDAE

Chamaeleo gracilis
(Hallowell 1844)
Graceful Chameleon

GRACEFUL CHAMELEON IN UGANDA

MAXIMUM SIZE

D. F. HUGHES & M. BEHANGANA

Chamaeleo gracilis is a large, hornless chameleon with a pan-continental distribution across Central Africa (Tilbury 2010). This species mostly inhabits wooded and moist savannas, often in areas with acacia trees, from sea level up to 1600 m altitude (Branch 1998; Branch 2005). Sexual dimorphism for males of this species is based on the presence of tarsal spurs, smaller maximum body size and hemipenal bulge (Spawls *et al.* 2006; Tilbury 2010). Maximum total body size for the species has been estimated to be approximately 330 mm (Tilbury 2010). Reported maximum body sizes include, a male measuring 308 mm (153 mm SVL + 155 mm TL) (Werner 1911) and a female measuring 331 mm (165 mm SVL + 166 mm TL) (Dunger 1967). Typical body sizes of East African specimens range from 150 to 250 mm, but there is a record of a 350 mm individual of undetermined sex from Ethiopia (Spawls *et al.* 2002).

On 7 June 2015, we collected an adult female *C. gracilis* (Fig. 1) from roadside vegetation in Moroto, Moroto District, Karamoja sub-region, Northern Region, Uganda (2° 31' 42.2718" N, 34° 39' 55.3824" E; 1331 m a.s.l.). This chameleon measured 366 mm in total length (190 mm SVL + 176 mm TL) and weighed 99 g (Fig. 1). This individual surpasses the previously reported size record (unknown sex) for the species by 16 mm (Spawls *et al.* 2002) and the estimated maximum size for the species by 36 mm (Tilbury 2010).

Figure 1. An adult female *Chamaeleo gracilis* that represents the largest body size recorded for the species (366 mm), Moroto, Moroto District, Northern Region, Uganda. The length of the pen is ca. 137 mm.

Furthermore, considering maximum size accounts for which the sex was identified, this individual exceeds the female record by 35 mm (Dunger 1967) and male record by 58 mm (Werner 1911).

The presence of a healed wound near the mouth and other signs of senescence suggests that this individual had reached an advanced stage, yet the exact age in years and reproductive status of this individual remains unknown. Body size measurements were made with a standard metric ruler in the field and later verified with Vernier calipers by an independent observer. The specimen was deposited in the University of Texas at El Paso Biodiversity Collections (Field no. DFH 232).

ACKNOWLEDGMENTS

We are indebted to Dr Daniel Aleper for facilitating our research at Mount Moroto and graciously allowing us to stay at his residence which eventually led us to the chameleon. The animal was collected under the University of Texas at El Paso Institutional Animal Care and Use Committee (IACUC) protocol A-200902-1 and Uganda National Council of Science and Technology (UNCST) Research Permit NS 481.

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TESTUDINIDAE

Homopus boulengeri
Duerden 1906
Karoo Padloper

REPRODUCTION

V. J. T. LOEHR

In 1988 and 1990, two brief notes reported that Karoo Padlopers (*Homopus boulengeri* Duerden 1906) produce single-egg clutches, measuring 32-39 x 22-24 mm and weighing 10-12 g, in December-January (Boycott & Bourquin 1988; Haagner 1990). One record of oviposition was in captivity. Since 1990, there have been no new published records on their reproduction. Meanwhile, there is concern about population declines in the species (Juvik & Hofmeyr 2015), which has contributed to its Vulnerable conservation status (Turtle Taxonomy Working Group, 2014). Consequently, even incidental observations on reproduction in Karoo Padlopers are valuable and should be recorded.

On 30 January 2017, I found a complete shell of a female Karoo Padloper with a single egg inside of it (Fig. 1) near Williston, Northern Cape Province, South Africa (coordinates deposited at the Scientific Services Unit, CapeNature, Western Cape Province, South Africa). The dimensions of the shell were 90.43 mm (straight carapace length), 69.13 mm (maximum shell width), 42.22 mm (maximum shell height), and 79.31 mm (straight plastron length). I separated the plastron from the carapace to access the egg, which measured 39.95 mm (egg length) by 24.60 mm (egg width). Following calculations used for Speckled Padlopers (*Homopus signatus* Gmelin 1789) in Loehr *et al.* (2011), the Karoo Padloper egg volume was 9.2% of the female shell volume. The remains of the shell were transferred to the University of the Western Cape for DNA analysis (permit FAUNA 245/2/2015).

This record suggests that Karoo Padloper females can produce eggs that are slightly

Figure 1. Ventral view of the carapace of a female Karoo Padloper (*Homopus boulengeri*) that was found with an egg inside. The plastron was removed to access the egg.

larger than reported by Boycott & Bourquin (1988) and Haagner (1990). It also shows that females with a straight carapace length of 90.43 mm, compared to 94 mm total length in Haagner (1990), may be sexually mature. The egg to female volume ratio was within the range for Speckled Padlopers (5.5-11.9%; Loehr *et al.* 2011) and larger than an incidental record (7.3%; A. Schleicher, pers. comm.) for captive Nama Padlopers (*Homopus solus* Branch 2007). Similar to Speckled Padlopers (Loehr *et al.* 2011), and possibly Nama Padlopers, Karoo Padlopers seem to require a relatively large egg size to produce viable hatchlings.

ACKNOWLEDGMENTS

I would like to thank Alfred Schleicher (Windhoek, Namibia) for providing unpublished data on his captive Nama Padlopers. The Northern Cape Department of Environment and Nature Conservation is thanked for issuing a permit to collect the shell.

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PYXICEPHALIDAE

Pyxicephalus adspersus
(Tschudi 1838)
Giant Bullfrog

PREDATION

C. A. YETMAN, T. CLARK & A. DIEPPENAAR-SCHOEMAN

Spiders dominate published accounts of invertebrate predation on terrestrial anurans (Toledo 2005) and are considered to be their most important invertebrate predator (Heyer 1983). Predation of anurans (anurophagy) by spiders has received increasing attention in the Neotropics (Menin *et al.* 2005; Toledo 2005; Barbo *et al.* 2009; Costa-Pereira *et al.* 2010; Maffei *et al.* 2014; Jablonski 2015) but is distinctly under-appreciated in Africa, where detailed published information of this sort is comparatively rare (Sierwald 1988; Vonesh 2005; Barej *et al.* 2009; Wells 2010). Anurophagy has been documented in eight spider families (Menin *et al.* 2005; Toledo 2005) all of which are known to occur in Africa, namely the Araneidae (Orb-weaver spiders), Ctenidae (Tropical Wolf spiders), Ctenizidae (Trapdoor spiders), Dipluridae (Funnel-web tarantulas), Lycosidae (Wolf spiders), Sparassidae (Huntsman spiders), Theraphosidae (Baboon spiders) and Pisauridae (Fish-eating spiders).

On 6 January 2015 at 11h24 a newly-metamorphosed Giant Bullfrog (*Pyxicephalus adspersus*) was seen caught by a member of the Fish-eating spider genus *Nilus* (previously known as *Thalassius*) of the family Pisauridae (Fig. 1). The spider appeared to have effectively immobilized the frog, which ceased to move, and it was assumed that the spider would eventually eat the frog, although this was not confirmed. The incident occurred at the edge of a small grass and sedge-fringed, rain-filled depression (25° 5' 28.05" S, 27° 2' 1.46" E; 1070 m a.s.l.) situated near the Wilgespruit River on the farm Wilgerspruit (quarter degree grid cell 2527AA), approximately 6 km north of Pilanesberg Game Reserve in North West Province, South Africa. Giant (*P. adspersus*) and African (*P. edulis*) bullfrogs occur sympatrically in the Pilanesberg region (NSS 2015). This froglet was identified

Figure 1. Juvenile Giant Bullfrog (*Pyxicephalus adspersus*) captured by a Fish-eating spider (*Nilus radiatolineatus*)

as *P. adspersus* based on the absence of a conspicuous light spot on its tympana (Du Preez & Carruthers 2009). The spider was identified as *Nilus radiatolineatus* based on their colour pattern and distribution (Dippenaar-Schoeman 2014). The observation was accessioned to the Animal Demography Unit Virtual Museum (http://vmus.adu.org.za) with the accession number "194378" for FrogMap and "194379" for SpiderMap.

Nilus are the best-known spiders associated with freshwater habitats in South Africa, and are found along slow-flowing streams and rivers, and in ponds with sufficient fringing vegetation upon which they can rest (Lawrence 1970; Sierwald 1988). There are five species known from South Africa. They are large, powerful spiders capable of catching large aquatic invertebrates, tadpoles and small frogs and fish. The spiders wait with only the tips of their legs resting on the water's surface, and water movements detected by their tarsi are probably used to pinpoint the position of prey, which is grabbed with incredible speed by the legs and chelicerae. The prey is then pulled out of the water before feeding starts (Dippenaar-Schoeman 2014).

Although detailed published information regarding spider predation of anura in Africa is limited (Abraham 1923; Sierwald 1987; Sierwald 1988; Barej *et al.* 2009; Wells 2010), anecdotal photographic and video evidence (e.g., Drew 2012; Masterson 2015; Ralston 2016) indicates that spider predation on anura e.g., *Hyperolius* and juvenile *Amietophrynus,* is common. However, this is the only known report of predation by a spider (or any arachnid) on *Pyxicephalus*. Cook (1996) reported *P. adspersus* egg and tadpole predation by aquatic dystiscid beetles, *Orthetrum* dragonfly nymphs, *Hirrudo* leeches, Common Carp (*Cyprinus carpio*), Marsh Terrapin (*Pelomedusa subrufa*) and Rinkhals (*Haemachatus haemachatus*). *P. adspersus* tadpoles are also reportedly preyed upon by the African Catfish (*Clarias gariepinus*), Banded Tilapia (*Tilapia sparmanii*) and Nile Monitor (*Varanus niloticus*) (Du Preez & Cook 2004). Predation of juvenile or adult *P. adspersus* or *P. edulis* by large birds (e.g., herons, storks, ibises, egrets, pelicans, raptors and owls) has been most frequently reported (Cook 1996; Cook & Minter 2004; Du Preez & Cook 2004; Engelbrecht *et al.* 2015), but various (mainly large venomous) snakes and *Varanus* monitors are also known to prey on these frogs (Cook & Minter 2004; Branch *et al.* 2015).

According to Nyffeler & Pusey (2014), who reviewed more than 80 incidences of fish predation by semi-aquatic spiders from all continents except Antarctica, the body length of captured fish exceeded the spiders' body length by 2.2 times on average. Published and anecdotal accounts of spider anurophagy indicate that captured anura are often also larger than their spider predators. Adult *Pyxicephalus adspersus* are among the largest anurans in the world (Wells 2010) and wild, newly-metamorphosed specimens are known to range in size from 1.5 g (Van Wyk *et al.* 1992) and 20 mm in "length" (Rose 1956), to 5.2 g (maximum ca. 9 g) and 39 mm (maximum ca. 45 mm) in snout-urostyle length (Conradie *et al.* 2010). In light of these considerations and our observation, it follows that many anuran species with life stages of a similar or smaller size may be susceptible to predation by *Nilus*, and other Pisaurid and vertebrate-eating spiders in sub-Saharan Africa. Both Toledo (2005) and Menin *et al.* (2005) emphasise the importance of Pisaurid spiders as significant predators of anurans. Overall, however, the impact of spider predation on amphibian populations remains unknown (McCormick & Polis 1982; Menin *et al.* 2005; Wells 2010), and represents but one form of invertebrate predation, which potentially has a considerable impact on anuran populations.

ACKNOWLEDGMENTS

The observation was made during a specialist bullfrog study, which was requested by the North West Department of Rural, Environment and Agricultural Development, and performed by Natural Scientific Services (NSS 2015).

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PYXICEPHALIDAE

Cacosternum capense
Hewitt 1925
Cape Caco

TOXIC EFFECT

A. REBELO

On June 18, 2016 I noticed a mild reaction on my fingertips while handling wild-caught, adult male Cape Caco frogs (*Cacosternum capense*). This occurred shortly after restraining the frogs in order to take photographs of the ventral surface. This contact, presumably with the large dorsal glands found on the skin of this species, caused a number of small elevated blisters (Fig. 1). No noticeable pain was associated with this affect, which subsided about 20-30 minutes later. However, a couple days later, these same blisters became visible again when my fingers were soaked in water. Surprisingly, this reaction did not occur during locomotory endurance tests, which involved repeated contact with the back of the frog to induce movement.

Figure 1. The elevated blisters on the skin resulting from extended handling of *Cacosternum capense*.

Cacosternum capense is unique among the Pyxicephalidae in that it has large lateral and postero-dorsal skin glands (see Fig. 2 in Channing *et al.* 2013). De Villiers (1931) observed that transported specimens secreted 'mucous material' similar to that of *Xenopus laevis* but in larger quantities. These secretions were speculated to be poisonous and deter potential predators. Rose (1926) observed that other frog species died after sharing the same enclosure with *C. capense*. No such mucous was visible during handling, but this might only occur if the individuals were physically harmed, nonetheless, handling still resulted in the aforementioned reaction. Of the other pyxicephalid species I have already handled during testing (*Amietia delalandii*, *A. poyntoni*, *A. vertebralis*, *A. hymenopus*, *Anhydrophryne hewitti*, *A. rattrayi*, *Arthroleptella villiersi*, *Cacosternum australis*, *C. aggestum*, *C. nanum*, *C. rhythmum*, *C. thorini*, *Poyntonia paludicola*, *Natalobatrachus bonebergi*, *Strongylopus bonaespei*, *S. fasciatus*, *S. grayii*, *Pyxicephalus adspersus*, *Tomopterna cryptotis*, *T. delalandii and T. natalensis*), none have produced any similar effect.

Figure 2. The enlarged dorsal glands of *Cacosternum capense* that might be responsible for the secretion of posion.

The release of the toxins while handling, as opposed to contact during chasing, suggests that it may be a response to predators in the process of injuring or eating the frog. Similarly, the guttural toad (*Sclerophrys gutturalis*) did not release toxins while being chased in a similar manner (Vimercati, pers. comm., 17 June 2016), but may do so after being injured by a car. These toxins may be effective in deterring digging predators, as this species is known to aestivate underground for most of the year (Rose 1929). Another possibility is that these toxins prevent predation by other frogs during the breeding period, such as the Cape Sand Toad (*Vandijkophrynus angusticeps*), which is larger and breeds at similar times in nearby water bodies. Further study of the ecological function for these toxins could certainly provide fascinating insights for this poorly known species.

ACKNOWLEDGMENTS

I would like to thank the National Research Foundation (NRF) and Centre of Excellence for Invasion Biology (CIB) for financial support, and my MSc. supervisor John Measey. Additionally, I would like to thank Atherton de Villiers for checking the manuscript. Work done under permits from Cape Nature (0056-AAA043-00009), Ezemvelo KZN (OP 3825/2015), Department of Economic development, Tourism and Environmental Affairs and Tourism (DEDEAT) of the Eastern Cape (CRO 204/15CR) and Department of Economic development, Tourism and Environmental Affairs (DETEA) of the Free State (01/30596); and ethics clearance from Stellenbosch University REC: Animal Care and Use committee (SU-ACUD15-00101).

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SCINCIDAE

Trachylepis striata
(Peters 1844)
African Striped Skink

PREDATION

D. F. HUGHES & M. BEHANGANA

Trachylepis striata is a stout, medium sized skink with a large distribution across eastern and southern sub-Saharan Africa (Branch 1998; Branch 2005). This species can tolerate a high level of anthropogenic disturbances and is commonly found on buildings, walls, and trash piles in urban areas (Spawls *et al.* 2002). In natural settings, it is abundant in forest clearings, coastal thickets, and savannas, from sea level up to 2300 m elevation (Spawls *et al.* 2006).

Despite both this conspicuous skink species' high abundance in suitable habitat and several accounts of unidentifiable skink remains in the stomachs of various African snake species with overlapping ranges, only a small number of reports have identified its predator species. Known vertebrate predators of this skink include the snake species, *Naja mossabica* (Shine *et al.* 2007), *Psammophis biseriatus* (Cottone & Bauer 2008), *P. crucifer* (Cottone & Bauer 2010), *P. subtaeniatus* (Shine *et al.* 2006), *Hemirhagerrhis nototaenia* (Broadley 1997), and *Lycophidion capense* (Loveridge 1942; Pitman 1974); also the bird species, *Accipiter rufiventris* (O'Shea & Halliday 2001). Here we report a new avian predator of *T. striata*.

On 24 June 2015, we observed a Black-headed Heron (*Ardea melanocephala*) capture and consume an adult *T. striata* next to a petrol station in Kisoro, Kisoro District, Kigezi sub-region, Western Region, Uganda (1° 16′ 59.3″ S, 29° 42′ 06.7″ E; 1890 m a.s.l.). The heron tracked the skink from the edge of a trash pile adjacent to a brick wall, then cornered and captured the lizard prey with a quick strike of its beak. The skink was held between the mandibles then quickly killed from several forceful bites delivered from the bird, crushing portions of the lizard's head and body (Fig. 1). The prey item was consumed post mortem. This successful predation event lasted less than 5 minutes. To the best of our knowledge, this report is the first observation of *A. melanocephala* consuming *T. striata*, and adds to the surprisingly short list of known predators for this widespread skink.

ACKNOWLEDGMENTS

We thank Lukwago Wilber for his companionship and assistance on various portions of the expedition. We also are grateful to Uganda Wildlife Authority (UWA) and Uganda National Council of Science and Technology (UNCST) for facilitating our research program across the country.

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Figure 1. An adult *Trachylepis striata* being preyed upon by *Ardea melanocephala*, observed in Kisoro, Kisoro District, Western Region, Uganda.

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TESTUDINIDAE

Stigmochelys pardalis
(Bell 1828)
Leopard Tortoise

NOCTURNAL ACTIVITY

J. REISSIG & J. S. HEATON

On the 1st of January 2016, whilst driving along Argyle Road, between the Eastgate Airport (24˚ 23' 15.0" S, 31˚ 2' 47.7" E; 527 m a.s.l.) and the Timbavati Main Gate (24˚ 20' 59.5" S, 31˚ 9' 25.6" E; 440 m a.s.l.), a stretch of no more than 12 km of tar road, two juvenile and two subadult Leopard Tortoises (*Stigmochelys pardalis*) were encountered drinking water from rainwater pools on the road (Figs 1 & 2).

Many tortoise species will drink free standing clear and even muddy water after rainfall events (Medica *et al.* 1980, Ramsay *et al.* 2002, Loehr *et al.* 2009, Doody *et al.* 2011), including water from pools that have

Figure 1. The second specimen, a juvenile which was encountered at 19H56.

formed on roads, either whilst it is raining or after (Medica *et al*. 1980). However, what makes this observation rather interesting is that the activity was witnessed at night. All four specimens were seen in a period of 45 minutes, between 19h50 and 20h35. Sunset was at 18h47 and moonrise was at 23h37, on that specific day.

This observation seems to be the first record of its kind in South Africa, and no further records of its nature were found documented in Southern Africa. The possibility of this activity having been witnessed due to the persistent drought conditions is a point to consider. However, it had rained within the last month, as well as that day, as recorded at the Eastgate Airport approximately 10 km away. A total of 38.32 mm of rainfall was recorded in December 2015 in largely three main events, the last being 19.05 mm on 21 December 2015. On 01 January 2016, the day of observation, 2.03 mm was recorded, indicating that only a very small amount of rainfall is needed to create a drinking resource on tar roads. The likelihood of road mortalities, due

Figure 2. The fourth specimen, a subadult which was encountered at 20H31.

to this nocturnal activity, is important to understanding road ecology and impacts on tortoise populations, as one would not generally expect a Tortoise to be active on a road at night. Further investigation is needed to ascertain if nocturnal activity, especially on roads, is more common than previously thought.

ACKNOWLEDGMENTS

We would like to thank Prof. William Branch for his assistance and comments whilst completing this manuscript.

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PTYCHADENIDAE

Ptychadena anchieta (Bocage 1867)

Achieta's Ridged Frog/ Plain Grass Frof

PREDATION

J. V. LYAKURWA & S. M. THOMAS

Invertebrate predation on anurans is best known from the class Arachnida especially scorpions (Villanueva-Rivera 2000) and spiders (Menin *et al.* 2005). Several amphibian families have been recorded to be preyed upon by a wide variety of spiders. Most of these records are from the Neotropical region (Menin *et al.* 2005; Maffei *et al.* 2010; Costa-Pereira *et al.* 2010). Very few records have been reported in the Afrotropical region (e.g. Vonesh 2005: Barej *et al.* 2009).

On 6 March 2016 the authors observed a Wolf spider (family Lycosidae) feeding on Anchieta's Ridged Frog (*Ptychadena anchietae*) in the Kilombero valley, near Ifakara town in Tanzania (08°06'8.86"S, 036°42'33.91"E, 260 m). During a night walk around 20:00 hrs we saw a large number of spiders (approximately five spiders/ square meter) on a plot of land that had been ploughed with a tractor for rice cultivation. In addition, ten species of frogs were seen in the same area, with the genus *Ptychadena* dominating. As we approached the end of our walk, we encountered a Wolf spider, feeding on *P. anchietae* (Figure 1). The frog was wounded on the dorsum (just behind the eyes), on the flank of one side and on the thigh of one leg. The spider was found feeding on the wounded area on the thigh (Figure 1). In Tanzania, records of spiders feeding on Reed frogs (*Hyperolius*) have been reported (Vonesh 2005) but records of predation by spiders on other anuran groups are very scant. In our observation we did not witness the spider actively hunting; it either killed the frog or it was scavenging it, as reports on the latter are also known (Sandidge 2003). Elsewhere, spiders have been reported as predators for several

Figure 1. A Wolf spider feeding on *Ptychadena anchietae*.

anuran species (Barbo *et al.* 2009; Barej *et al.* 2009).

ACKNOWLEDGMENTS

Special thanks to Kim Howell, Jason John and Yeremiah Chuhila for their comments and advice on this note. Also to Ansie Dippenaar-Schoeman and Norman Larsen who identified the spider.

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NATRICIDAE

Natriciteres variegata
(Peters 1861)
Variegated Marsh Snake

VARIEGATED MARSH SNAKE IN DEMOCRATIC REPUBLIC OF CONGO AND GABON

B. HUGHES

Originally described from Ghana, West Africa this species had been thought to be unknown east of Cameroon (Loveridge 1958: 45) until Broadley (1965: 26, 1966: 2) suggested that forest snakes with 17 "midbody" scale rows from south of the equator might belong to the West African species with 15 rows i.e. to *N. variegata* . He added his new taxa *(N. bipostocularis, N. sylvatica)* to *N. pembana* (Loveridge 1935: 8) as subspecies of *N. variegata* but has since treated these as separate species (e.g. Broadley et al. 2003: 172).

Meanwhile Lanza & Vanni (1976: 148) provided evidence of *N. variegata* from northeastern Congo in the form of a specimen (MZUF* 20402) of snout to vent and tail lengths of 238+108mm and with a white collar collected 10th March, 1975 at **Digba** (04° 24' N, 25° 47' E; c. 650 m a.s.l.), Bas Uele. To the north of the Congo Chirio and Ineich (2006: 50) and Jacobsen (2009: 13) have detailed specimens from the Central African Republic (CAR). In search of specimens of this species among the voluminous collection of *N. olivacea* in the Museum Royale d'Afrique Central, Tervuren (MRAC) and the Institut royal des Sciences naturelles de Belgique (IRSNB) with the assistance of their respective curators Danny Meirte and Georges Lenglet, the following specimens of *N. variegata* were identified: (IRSNB 2791) from the **Monga** District (04°.12' N 22°.49' E, c. 450 m), Bas Uele, 210+100 mm with neck band, collected by de Witte in 1938 and correctly identified by Laurent in 1944 but remaining unpublished; a *"N. olivacea"* (MRAC 20159) collected by Max Poll in 1955 from near **Gangala na Bodio** (03°41' N 29°08' E, c. 700 m), adjacent to the Garamba National Park, in Haut Uele is 535+248 mm and without a neck band whilst another (IRSNB 3765) collected by H. Simeons in 1940 from **Ibembo** (02°38' N 23°27' E, c. 380m) in Bas Uele has a neck band but an incomplete tail and for this reason was not measured: all proved to have no more than 15 body scale rows and to be referable to *N. variegata.*

Although there are series of this species from Cameroon in European and American museums (BMNH, MNHN, MRAC, NMW, ZFMK and MCZ, USNM, ZMC) the Reptile Database shows none from former French Congo nor from Gabon and Pauwels & Vande Weghe (2008: 226) do not list *N. variegata.* However, the Tervuren collection includes a *N. variegata* (MRAC 28316) collected by J. Collot at **Oyem** (01° 35' N, 11° 33' E, c. 600 m) in Gabon and determined correctly by P. Derleyn in 1966.

A re-examination of existing collections in Europe and the U.S.A. is likely to provide further 'hidden' records which can contribute to current knowledge.

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***KEY** to museum acronyms: **MCZ** Museum of Comparative Zoology, Harvard University; **MNHN** Museum National d'Histoire naturelle, Paris; **NMW** Naturhistorisches Museum, Wien; **MZUF** Museo Zoologico dell'Università di Firenze, Florence; **USNM** National Museum of Natural History, Washington; **ZFMK** Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn; **ZMC** Zoological Museum, University of Copenhagen. Others appear in the text.

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VIPERIDAE

Atheris hirsuta
Ernst & Rödel 2001
Bristly Tree Viper

BRISTLY TREE VIPER IN GHANA

B. HUGHES

Here I report on the third known specimen of *Atheris hirsuta* and a new record for Ghana - the earlier two specimens come from neighbouring Ivory Coast. The specimen is one of 18 specimens of *Atheris spp.* collected by Konrad Umiker during 11-13 June, 1946 in the vicinity of Asankrangwa (05° 48′ N, 02° 26′ W), Western Region of Ghana, in the transition zone between the more southern Rain Forest and the Moist Semi-Deciduous forest further north (Survey of Ghana 1959). When seen in Bern (MHNB) in 1969 each snake carried a field number. All but the present specimen belong to *A. chlorechis*, and the obviously different subject of this note, then numbered Umiker 3, now 1017864, was thought to be an *A. squamiger,* otherwise known from but a single Ghanaian specimen (Hughes & Barry 1969). A more recent re-check of the specimen shows it to belong to the subsequently described *A. hirsuta* for the following reasons: 1) Body scales of the anterior third of the body carry a keel which, especially on the nape, is prolonged backwards for a length equivalent to the length that the scale itself lies upon the skin, much as in the type of *A .hirsuta* (fig. 1d in Ernst & Rödel 2002); 2) the snout is short, divisible 2.1 times into the minimum distance between the eyes across the top of the head. The last is given as 2.3 for the type and stated by Ernst & Rödel (2002) to be, “measured between both circumorbital scale rows” but if taken literally this would give a figure of 1.9 in the present specimen. Ernst has confirmed (pers. comm.) that interorbital distance, *including* the circumorbital scales, was the measure taken.

Additional information on this specimen is as follows: sex: male, snout-vent & tail lengths: 395 + 96 mm giving a ratio of the latter to the former of 24.3 – concordant with it being a male, ventrals: 2+164 (the 2 being pre-Dowling pseudoventrals), subcaudals: 60, number of body scale rows at ventrals 50: 14, 100: 15, 150: 13, colouration: now dark grey with few light specks above, lighter below. Other scale data accord with the summary Table 2 provided by Penner *et al.* (2013).

ACKNOWLEDGEMENTS

I am grateful to Dr Kurt Rossenbacher for the loan of this specimen and for permission to publish this note. As usual, I am indebted to the Natural History Museum (BMNH) London for access to the National Collections and study facilities.

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SURVEY OF GHANA. 1959. Vegetation Zones 1:2 million.

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LAMPROPHIIDAE

Aparallactus lunulatus lunulatus (Peters 1854) Reticulated Centipede Eater

R. VAN HUYSSTEEN & M. PETFORD

As part of an ongoing herpetological survey (2014 – present) in the biodiversity rich Soutpansberg, South Africa, five specimens of *Aparallactus lunulatus lunulatus* (Peters, 1854) were located during fieldwork. They represent a range extension of approximately 130km from the nearest record (QDG 2230DB, Bates et al. 2014) for the species in Limpopo Province, South Africa.

All specimens were found in the Medike Mountain Sanctuary (QDG 2229DC) in the Sand River Valley, western Soutpansberg. 1. sub-adult specimen (+/- 30cm) found foraging in open woodland with sandy substrate (22°59’35”S, 29°36’82”E 797m a.s.l) at 21h00, 20 November 2014. During overnight storage, the snake regurgitated an undigested centipede (*Scolopendromorpha* sp.). 2. juvenile (+/- 20cm) found under rock at 13h50 on a rocky east-facing slope in open woodland (22°58’74” S, 29°37’14” 810 m a.s.l), 31 May 2015. 3. unsexed adult (40cm) located in rocky open woodland at 19h10, 16th November 2016 (22˚59’3”S, 29˚36’53”E 884 m a.s.l). 4. a hatchling (+/- 10cm) found D.O.R on a track crossing the Sand River (22˚59’28”S, 29˚36’44”E 809 m a.s.l), 28th February 2017. 5. unsexed adult (35cm), found in rocky woodland (22˚59’13”S, 29˚36’52”E 815 m a.s.l.) at 11h00 on the 7th March 2017. All specimens were photographed and released at the original site and images submitted to the Virtual Museum (in order - VM152509. VM154420, VM160260, VM161032, and VM161033).

Dorsal coloration in *A. lunulatus* shows ontogenetic change (Fig. 1). Juvenile colouration was similar to that described in Branch (1998) for young specimens: the forebody is prominently banded, starting with a broad collar on the neck with up to fifteen bars which reduce to spots by midbody, and then disappear leaving only the grey-brown background colouration with a distinctive reticulated effect. In subadults the forebody banding gradually fades to the adult pattern, where the bars are almost indistinguishable and the body scales are mainly orange-brown, but with a dark base resulting in a reticulated appearance. All specimens had six lower and upper labials, with the third and fourth upper labials entering the eye; a single pre-ocular, and a single post-ocular, as described in Marais (2004).

The Medike records are significant, not only as a western extension of the known distribution of the species, but also because they draw attention to the conservation value of the Soutpansberg region in general, and to the Sand River Valley in particular.

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Fig. 1. Ontogenetic colour change in *Aparallactus lunulatus lunulatus,* Sand River Valley, western Soutpansberg, Northern Limpopo, South Africa. Top. Specimen 2. juvenile coloration (31 May 2015, Ryan van Huyssteen); Middle: Specimen 1, sub-adult coloration (20 November 2014, Ryan van Huyssteen); Bottom: Specimen 5, adult coloration (March 2017, Melissa Petford).

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GEKKONIDAE

Homopholis mulleri

Visser 1987

Muller's Velvet Gecko

M. PETFORD & R. VAN HUYSSTEEN

As part of an ongoing herpetological survey (2014 – present) in the biodiversity rich Soutpansberg in South Africa, two specimens of *Homopholis mulleri* Visser 1987 (Fig. 1) were located during fieldwork. These represents a range increase of two new Quarter Degree Grids (QDG), as well as additional habitat type for the species.

Both specimens were found on the road between Waterpoort to Alldays in the Limpopo Valley north of the Soutpansberg. On 4^{th} December 2016 at 20:35 an adult male was found on the road in open savanna sandveld (22˚48'5"S, 29˚32'15" 700 m a.s.l; QDG 2229DC). A second male was also found on the road at 22˚48'2"S, 29˚27'22"E (762 m a.s.l., QDG 2229CD) on 13^{th} January 2017 at 22:20. Both individuals were photographed and released where found, and the images submitted to the Virtual Museum (VM160143 and VM161031, respectively). The nearest QDCs to the two new records were QDG 2229DA and QDG 2229CB, both adjacent to the new finds. Both individuals were typical of the description outlined in Branch (1998) with distinctive white upper labials, speckled underneath and dark grey dorsum with characteristic white chevrons, although the second indivdual had a yellow belly as opposed to white, which has not been previously described for the species (Branch 1998).

The habitat for *Homopholis mulleri* has previously been considered to be Marula (*Sclerocarya birrea caffra*) and Knob-thorn (*Acacia nigrescens*) trees in Mopane Veld (Visser 1987; Jacobsen 1989; Bates *et al.* 2014). However, no Mopane trees (*Colophospermum mopane*) occurred where the two individuals were found, in which the dominant tree was the Slender Three-hook Thorn (*Acacia senegal*), with Marula, Knob-thorn and Shepard's-tree (*Boscia sp.*) also common. *Homopholis mulleri* is currently

Figure 1. *Homopholis mulleri* from the Limpopo Valley, just north of the Soutpansberg, South Africa. Side view of an adult male (Ryan van Huyssteen).

listed as Vulnerable and was previously considered to be restricted to Mopane habitat which is vulnerable to several threats (Bates *et al.* 2014). The present findings show that *Homopholis mulleri* is not restricted to Mopane Veld, and may occupy more generalized habitats, suggesting that it may have a wider distribution. Further surveys are required to identify the true range and habitat type for the species, and to affirm its Vulnerable conservation status.

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LACERTIDAE

Tropidosaura montana natalensis
Fitzsimons 1947
Natal Mountain Lizard

NATAL MOUNTAIN LIZARD IN SOUTH AFRICA

W. CONRADIE,
B. DU PREEZ & J. VENTER

On 16 October 2014, in the Collywobbles area in the Eastern Cape, an adult gravid female *Tropidosaura* specimen was collected under a rock in degraded grassland (32° 1′ 12″ S; 28° 34′ 11″ E, 3228BA, 696 m a.s.l) by B. Du Preez. The specimen (Fig. 1) was accessioned into the Port Elizabeth Museum collection (PEM R21111), and has the following meristic and scalation details: snout-vent length 56 mm, tail length 95 mm: 4/4 (right/left) upper labials anterior of the subocular; 6/6 lower labials; 44 transverse dorsal scale rows between occiput and root of tail; 23 dorsal scales across the middle of the body; ventral plates in 25 transverse rows between axilla and groin; and 5 femoral pores on each side. The following meristic characters categorises it with *T. montana natalensis* FitzSimons (1947): the nostril is pierced between the nasal and two small postnasals; the anterior loreal is very narrow and less than half the length of the posterior loreal; the lower edge of the subocular is much longer than adjacent labials; the temporal scale(s) are mostly smooth except for the uppermost row; there is a single enlarged pre-anal, bordered by 8 smaller scales; and the posterior surface of hind limbs is finely granular. Thus we assign this new record to *T. montana natalensis* and not either of the other two subspecies. This subspecies is well separated from other subspecies of *T. montana* by scalation and by genetics (Engleder et al., 2013), but still awaits formal re-assessment.

Tropidosaura montana natalensis is only known to occur in coastal and montane grasslands of southern KwaZulu-Natal (Turner, 2014). During a ECPTA biodiversity

Figure 1: Gravid female *Tropidosaura montana natalensis* (PEM R21111) from Collywobbles, Eastern Cape, South Africa. Photo: Brian Du Preez.

survey of Mkamabati Nature Reserve the remains of a *Tropidosaura* regurgitated by a *Lycophidion capense* where found in a funnel trap (Venter & Conradie in press). The regurgitated specimen was the first record of *T. montana natalensis* from the Eastern Cape. The new Collywobbles record represents the second record of this subspecies for the Eastern Cape and extends the distribution 160 km south of the Mkambati record. Further studies are required in the Transkei region, especially from the grasslands of the lower slopes of the Drakensberg and in the coastal region, to fully understand the distribution of this subspecies in the Eastern Cape. The lack of records of vertebrate taxa from the Transkei could possibly be attributed to the remoteness of the area and unsuitable road conditions, which make the logistics of field sampling efforts challenging. Skead (2007) described the phenomenon "Transkei faunal distribution gap" as a real gap in species distributions caused by environmental features. The presence of *T. m. natalensis* as far south as Collywobbles helps towards filling this "Transkei faunal distribution gap", indication that it is rather contribute to a sampling gap than a real gap.

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ELAPIDAE

Aspidelaps scutatus scutatus
A. Smith 1849
Common Shield Cobra

COMMON SHIELD COBRA IN SOUTH AFRICA

L. KEMP & W. CONRADIE

During a recent visit to Kimberley the first author undertook a night cruise between Kimberly and Barkley West via the R31 on 15 January 2016. At 11:37 pm a large dead on the road snake (DOR) was found at 28° 39' 3.9" S, 24° 36' 57.8"E; 1137 m a.s.l. The snake was identified as a Common Shield Cobra (*Aspidelaps scutatus scutatus*). The specimen (Figs. 1 & 2) was collected and has been accessioned into Port Elizabeth Museum herpetology collection (PEM R22084). A total of ten additional snakes were also found on the road. Comprising of seven species, i.e. *Bitis arietans* (DOR), *Atractaspis bibronii* (DOR), *Xenocalamus bicolor bicolor* (DOR), *Boaedon capensis* (one DOR and one alive), *Elapsoidea sundevalli media* (DOR), *Crotaphopeltis hotamboeia* (alive), and *Lycophidion capense capense* (three DORs).

The adult female specimen measured 373 mm snout-vent length and 50 mm tail length. Dorsal scales in 21 rows at midbody, with 120 ventral scales, 22 paired subcaudal scales, and anal shield entire. Six upper labial scales with the 4th upper labial very small and excluded from the eye by a large single subocular, 8 lower labial scales with first four touching mental, 1 preocular, 3 postocular scales, no loreal, and temporal scales arranged in a 2 + 4 pattern on both sides. Scales within 160 mm of the tail were strongly keeled. Colouration: the dorsal body is reddish brown, with a series of well-defined black blotched (22 in total) over body and tail; ventrally white; dorsal head and anterior part of body black; ventral head and anterior body black, separated by a white chin band.

The common shield cobra (*Aspidelaps scutatus scutatus*) is endemic to southern Africa. In South Africa, it is restricted to the northern parts of Gauteng, North-West, northwestern parts of Mpumalanga, the western half of Limpopo (Bates et al. 2014). Only three records from the north-eastern part of the Northern Cape currently exists and is based on photographic observation in the near vicinity of the Tswalu Kalahari Private Game Reserve (see Bates et al. 2014; http://vmus.adu.org.za/?vm=ReptileMAP-5950, http://vmus.adu.org.za/?vm=ReptileMAP-623, http://vmus.adu.org.za/?vm=ReptileMAP-155731).

Figure 1: Lateral photo of *Aspidelaps scutatus scutatus* (PEM R22084)

Figure 2: Dorsal (left) and ventral (right) photos of *Aspidelaps scutatus scutatus* (PEM R22084).

Broadley and Baldwin (2006) refer to additonal southern records from Thabanchu in the North-West Province (based on a FitzSimons record in Broadley 1983), Rooipoort in the Northern Cape (based on a record in Hewitt and Power 1913; Broadley 1983) and Philippolis in the Free State (based on a FitzSimons record in Broadley 1983), but they weren't included in the recent reptile atlas (Bates *et al*. 2014). They regard these as relic populations occurring in small pockets of suitable Kalahari sand and Karoo vegetation and that these records need to be re-confirmed. This new record from near Kimberley is very near to the Rooipoort record and validates this historical record. The other record, e.g., Philippolis, occurs further south and needs to be re-confirmed from that locality. Two historical museum specimens from Philippolis (PEM R1243 and USNM 63591) do exist. The specimens in the Port Elizabeth Museum were examined and share the same upper labial configuration as the current specimen. We propose that both the Rooipoort and Philippolis records should be included in future mapping of this species and further surveys should be undertaken in the eastern Northern Cape and southern Free State provinces.

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