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AHN CONTENTS

- 1 EDITORIAL
- SURVEYS
- 3 J. L. WEINELL, D. M. PORTIK & A. R. BAUER
- NATURAL HISTORY NOTES
- 11 J. M. TAFT, J. GREUEL & B. MARITZ
- 12 W. R. BRANCH
- 14 W. CONRADIE, W. R. BRANCH & D. G. HERBERT
- 16 D. F. HUGHES & M. BEHANGANA
- 17 V. J. T. LOEHR
- 19 C. A. YETMAN, T. CLARK & A. DIEPPENAAR-SCHOEMAN
- 24 A. REBELO
- 26 D. F. HUGHES & M. BEHANGANA
- 28 J. REISSIG & J. S. HEATON
- 30 J. V. LYAKURWA & S. M. THOMAS
- GEOGRAPHICAL DISTRIBUTIONS
- 33 B. HUGHES
- 34 B. HUGHES
- 36 R. VAN HUYSSTEEN & M. PETFORD
- 38 M. PETFORD & R. VAN HUYSSTEEN
- 40 W. CONRADIE, B. DU PREEZ & J. VENTER
- 42 L. KEMP & W. CONRADIE
- 45 INSTRUCTIONS TO AUTHORS
- 49 HAA MEMBERSHIP FEES

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 *Karusosaurus 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 consist 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.

ACKNOWLEDGEMENTS

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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