African Herp News

Newsletter of the Herpetological Association of Africa

Number 55 **DECEMBER 2011**

HERPETOLOGICAL ASSOCIATION OF AFRICA
http://www. wits.ac.za/haa

FOUNDED 1965

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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: *Smaug giganteus* from near Harrismith South Africa. Photograph by: Stuart Nielsen. Nikon D90 (1/1500, F5.6, ISO 400).

ARTICLES

REDISCOVERY OF THE ELUSIVE AMATOLA TOAD *VANDIJKOPHRYNUS AMATOLICUS*: TWICE SEEN IN TWENTY-SIX YEARS

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INTRODUCTION

Here we report the recent rediscovery of the rarely seen Amatola Toad, *Vandijkophrynus amatolicus*, at a known site, 13 years after it was last reported. We also provide general notes on the occurrence, appearance and conservation of this obscure and threatened frog species, which is narrowly endemic to the Amathole region of the Eastern Cape Province, South Africa. The penultimate record of *V. amatolicus* was on the 19th September 1998, approximately 10 km NNE of Hogsback town. At that time, eight mature males along with a day old egg clutch and tadpoles were encountered in inundated grassland at this somewhat disturbed site among vehicle tracks and scattered debris of felled and decaying pines. Prior to that sighting a further 13 years had elapsed since the previous record (Minter et al. 2004), and there are only 20 Atlas records of this species in total since it was described by Hewitt (1925). Over the past decade searches at this and other sites failed to detect the species. Due to these long periods without records, its small area of occurrence and extensive habitat transformation in this area the Amatola Toad was recently assessed as Critically Endangered A2a (population reduction greater than 90% inferred from absence of records after intensive searches at known sites) under IUCN Red List criteria version 3.1 (SA-FRoG & IUCN 2010; Measey 2011). Attempts to find the species have increased in recent years with at least 10 independent visits to the area, including the concerted efforts of six researchers from Bayworld and North-West University in August 2010 as part of Conservation International and the IUCN Amphibian Specialist Group's "Search for Lost Frogs" campaign (http://www.conservation.org/campaigns/lost_frogs/Pages/search_for_lost_amphibians.aspx). Despite increasingly intensive searches of suitable habitat throughout the Amathole range these efforts went unrewarded for over a decade, leading to fears that this species may have become extinct (Conradie & Tarrant 2011).

On the 24 September 2011, on a happenstance visit, the authors encountered this species at the same site it was last seen, adjacent to the Cathcart Road leading away from Hogsback (32°33'S, 26°55'E to the nearest minute). There is a small stream running through a wetland area below pine plantations; an area which has been extensively

searched on previous visits. Slightly above the wetland, toad tadpoles and egg strings were found in shallow puddles, 2-15 cm deep, along a forestry track through the grassland, suggesting breeding of *V. amatolicus* at the site (Figure 1). That evening, at approximately 21h30 in cold (10°C) and windy conditions, a single female (Figure 2) was discovered under a small pine log adjacent to the forestry track. This was the only adult found but it supports the identification of the tadpoles based on biotype and the form of the decaying egg strings. More importantly, this confirms that the Amatola toad is extant and breeding. The fact that it is breeding in shallow puddles on a dirt track in grassland, an abundant biotype in this area, suggests that the species is likely to be found elsewhere in the area.

Figure 1: Forestry track near pine plantations at which the Amatola Toad (*Vandijkophrynus amatolicus*) was rediscovered. Photograph by Michael Cunningham.

Searches for this species over the past 13 years, and particularly in recent years, may have been hampered by long-term drought in the Eastern Cape which may have inhibited breeding congregations previously observed in this species. As such, it may have been difficult to find adults in aestivation. There has been significant winter rain in the region this year, although not in the weeks immediately prior to this encounter. Historical rainfall maps from the South African Weather Service (www.weathersa.co.za/web/Content.asp?contentID=88) show that rainfall for July-Aug 2011 was more than twice that of normal rains, an event that last occurred in

2006. Six of the previous nine years have seen less than average rainfall for this period, although the only very dry winter, with below 50% normal rainfall, was in 2003. Subsequent to this sighting we made inquiries to other researchers regarding possible records. We garnered just two responses: Martin Villet reports a sighting of a single adult in 2005 from the Amatola hiking trail while Alan Channing heard toads calling in December 2009 at the Hogsback-Cathcart T-junction. These sightings were not reported at the 2010 IUCN re-assessment, which raised the species red-listing from Endangered to Critically Endangered.

Figure 2: Amatola toad (*Vandijkophrynus amatolicus*) female discovered under a pine log near Hogsback (S 32.54774; E 26.91443) in the vicinity of puddles with egg strings and tadpoles. The lesion on the dorsum may be caused by Ranavirus. Photograph by Jeanne Tarrant.

DESCRIPTION

On 24 September 2011 we found four clusters of recently-hatched tadpoles (Gosner stages 23 - 25; approximately 4-5 days old) in the vicinity of disintegrating coiled egg strings (Figure 3) and 2 clusters of more developed tadpoles (Gosner stages 28 – 35, up to 25mm total length). Twenty of the larger tadpoles were retained to be raised to ascertain identity using DNA sequences and for voucher specimens at various stages of development.

The single female adult (Snout-Vent 38.4 mm; Head Width 12.5) largely matches the description of *V. amatolicus* in its size, colouration (olive-brown dorsum with small, irregular dark markings and a thin yellow vertebral line; ventrum pale off white with yellowish tint around the vent) and finely tubercular dorsum (Boycott 2004; du Preez & Carruthers 2009). It is likely that she had deposited eggs within the previous few days. On the centre and right of the dorsum was a large scar or lesion (approx. 10 mm x 5 mm). It is uncertain what the cause of this lesion is, but may be due to infection with ranavirus, which targets bufonids and could contribute to the scarcity of the species (Ché Weldon, personal communication).

Figure 3: Egg stings and newly hatched Amatola toad tadpoles. Photo courtesy Kirsten Wimburger.

CONSERVATION IMPLICATIONS

Despite rediscovery, the likelihood that this species has experienced some form of population decline in recent years remains high. The species has been identified as being high priority for conservation research and monitoring (Measey 2011). Confirmation that the species is extant should provide impetus for these conservation actions. Extensive surveys and monitoring must be conducted at all known sites as well as for potential new sites. Detection of *V. amatolicus* appears to be very dependent on climatic conditions and indicates that breeding occurs only after heavy rain and the breeding season may thus be short-lived. As such, surveying needs to be conducted during the peak breeding

season (September – December). The possibility of a ranavirus infection in the Hogsback population also raises the need to conduct such monitoring and ascertain presence of the disease. An assessment to determine population size and recommendations to adequately protect habitat, including both breeding and non-breeding sites is required. An immediate recommendation that can be made from this study is that cessation of forestry vehicle usage is implemented during the breeding season to prevent direct death of tadpoles in road puddles and breeding adults.

ACKNOWLEDGEMENTS

The following people participated in searches for this species over the past 13 years: Conrad Hoskin, Elizabeth Scott-Prendini, Claire Larroux & MJC (Hogsback, September 1998); Kate Henderson & MJC (Chatha May 2004; Katberg Nov 2005); Mpho Ramoejane & MJC (Nico Malan Pass, Apr 2007); Kate Henderson & MJC (Chatha, May 2008); Buyisile Makhubo, Lerato Mabe & MJC (Xhologha, May 2009); James Harvey & JT (Hogsback, October 2009); Michael F. Bates & MJC (Nov 2009); Dan Parker, Greg Tarrant & JT (Hogsback, January 2010); Werner Conradie, Ché Weldon, James Harvey, Oscar Olën, Larissa Zaayman & JT (Hogsback & Katberg, August 2010); Kirsten Wimberger, MJC & JT (Hogsback, September 2011). We apologise for any ommissions from this list and ask others who have conducted searches for this species to contact us with details of their search efforts. Personal Communications: Alan Channing – Department of Biodiversity and Conservation Biology, University of the Western Cape, South Africa; Ché Weldon - School of Environmental Sciences and Development, North-West University, Potchefstroom, South Africa and Martin Villet – Department of Zoology and Entomology, Rhodes University, Grahamstown, South Africa.

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REPTILE SURVEY OF VENETIA LIMPOPO NATURE RESERVE, LIMPOPO PROVINCE - SOUTH AFRICA

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INTRODUCTION

In the 1980s a diamond-bearing kimberlite pipe was discovered on the Farm Venetia in the Limpopo Province, South Africa. Following extensive exploratory drilling and feasibility studies, De Beers Ltd established a diamond mine on the property. They ac-

quired a number of properties between the mine and the Limpopo River and the decision was then taken to establish the Venetia Limpopo Nature Reserve (hereafter VLNR). The 35 000 hectare reserve is located 25 km north east of Alldays, Limpopo Province (2229AD, 600 m asl). The topography is predominantly flat, with underlying sandstone that occasionally interrupts the landscape as exposed koppies. Vegetation of VLNR is dominated by Mopane woodland.

We undertook a herpetological survey of the VLNR from 22 – 28 January 2010. The purpose of the survey was to 1) document the species that occur on the reserve and 2) to provide data, samples, and museum specimens in connection with the Reptile Speciation Project (http://sites.google.com/site/ reptilespeciationproject/). The Venetia area was previously identified as a significant gap in the current sampling for the project, and as such the reserve was targeted for data collection.

METHODS

During the 6 day fieldwork period, different habitat types across VLNR were surveyed, covering koppies and savanna habitats. Two Y-shape trap arrays (see Conradie et al., 2011) were set up in different habitat types of the reserve (Trap 1: 22.266395 S; 29.330720 E and Trap 2: 22.275841 S; 29.358191 E) and the traps were visited twice daily (morning and evenings). In addition, the team conducted daily active searches for reptiles in different areas of the reserve, attempting to sample across all habitat types. All reptiles encountered were captured by hand or by noosing and identified to species level. DNA samples were obtained from all captures and representative voucher specimens were deposited in the collection of the Port Elizabeth Museum (PEM).

SYSTEMATIC ACCOUNT

(Known distribution data based on the preliminary SARCA maps. * indicate new records for 2229AD)

Family: PELOMEDUSIDAE

Pelomedusa subrufa* (Lacépède, 1788) Marsh Terrapin

Numerous specimens were observed in the Lizzulea Dam (22.346234S; 29.329953E). No specimens were collected.

Family: TESTUDINIDAE

Stigmochelys pardalis* (Bell, 1828) Leopard Tortoise

One adult was observed crossing the gravel road.

Family: AGAMIDAE

***Agama armata* Peters, 1854 Peter's Ground Agama**

Three specimens were captured along dirt roads, sheltering under low growing Mopane trees on sandy to compact soil. Voucher specimens were collected: PEM R18648: 1 adult female (22.401440S; 29.253222E). PEM R18646: 1 adult male (22.318970S; 29.348028E). PEM R18637: 1 adult male (22.275170S;29.355889E).

Family: CHAMAELEONIDAE

Chamaeleo dilepis* Leach 1819 Flap-neck Chameleon

Two specimens were observed by spotlighting at night just outside the main research camp (22.266889S; 29.330944E & 22.264639S; 29.327250E respectively). No voucher specimens were collected. One additional *C. dilepis* was encountered on the main tar road along the northern border of the reserve.

Family: CORDYLIDAE

***Cordylus jonesii* (Boulenger, 1839) Limpopo Girdled Lizard**

Three specimens collected under tree bark. Voucher specimens were collected: PEM R18644 & 186455: 1 adult, 1 juvenile (22.26719S; 29.35864E). PEM R18658: 1 adult (22.37469S; 29.32783E).

***Platysaurus intermedius rhodesianus* FitzSimons, 1941 Common Flat Lizard**

Numerous specimens were observed on the exposed sandstone koppies to the north of the reserve and adjacent farm. Voucher specimens were collected: PEM R18634, 18638, 18639, & 18615: 2 adult males, 1 adult female & 1 juvenile (22.25256S; 29.31631E).

Family: GEKKONIDAE

***Chondrodactylus tuneri* (Gray, 1864) Turner's Tubercled Gecko**

Collected on the walls around the main research camp. Voucher specimens were collected: PEM R18611-18613: 2 adult males & 1 adult female (22.26664S; 29.33089E).

***Lygodactylus capensis* (Smith, 1849) Cape Dwarf Gecko**

Numerous specimens were collected around the main research camp, as well at the parking area of the Mopane camp. Voucher specimens were collected: PEM R18621-18622: 2 adults (22.26664S; 29.33089E).

***Pachydactylus punctatus* Peters, 1854 Speckled Gecko**

Three specimens were collected on sandy substrate under fallen, decaying Mopane trunks. Voucher specimens were collected: PEM R18617 &18619: 1 adult female, 1 juvenile (22.31897S; 29.34803E). PEM R18627: 1 adult female (22.25256S; 29.31631E).

Hemidactylus mabouia* (Moreau de Jonnes, 1818) Moreau's Tropical Gecko
Common on the walls of building in the main research camp. One specimen was collected under tree bark of a Mopane tree around the exposed sandstone koppies to the north of the reserve.Voucher specimens were collected: PEM R18609 & 18610: 1 adult male & 1 adult female (22.26664S; 29.33089E).

Family: GERRHOSAURIDAE
***Gerrhosaurus flavigularis* Wiegmann, 1828 Yellow-throated Plated Lizard**
One specimen was collected among some loose rocks on the koppie overlooking the Lizzulea dam. The second specimen was collected under debris at a base of a young Baobab tree at the main research accommodation. Numerous juvenile specimens were seen running in the Mopane scrub on the northern side of the reserve. Voucher specimens were collected: PEM R18633: 1 adult (22.34369S; 29.32783E). PEM R18641: 1 adult (22.26664S; 29.330899E).

***Gerrhosaurus validus validus* Smith, 1849 Giant Plated Lizard**
One specimen was collected amongst large boulders on the koppie overlooking the Lizzulea dam, in the same habitat as *G. flavigularis*. A second specimen was collected on the sandstone koppie north of the main research accommodation (22.25256S; 29.31631E). Voucher specimen was collected: PEM-R 183636: 1 adult male (22.34369S; 29.327833E).

Family: LACERTIDAE
***Heliobolus lugubris* (Smith, 1838) Bushveld Lizard**
Only juveniles were observed on gravelly soil. When approached they employed the defensive tactic of mimicking the acid-*squirting ground beetle (Anthiini* sp.) (Huey & Pianka, 1977).Voucher specimens were collected: PEM-R 18642 & 18652: 2 juvenile (22.311879S; 29.34803E).

***Ichnotropis squamulosa* Peters, 1854 Common Rough-scaled Lizard**
Specimens were collected on sandy soil surrounding the granite outcrops north of the main research camp. No juveniles were encountered. Voucher specimens were collected: PEM R18620, 18624, 18625, 18626, 18628, & 18629: 5 adult specimens (22.25256S; 29.31631E & 22.26719S; 29.35864E).

***Nucras holubi* (Steindachner, 1882) Holub's Sandveld Lizard**
One specimen was collected at the same locality as *H. lugubris* juveniles. Habitat included compacted sand with scattered Mopane trees. Voucher specimen was collected: PEM R18647: 1 adult (22.31897S; 29.348029E).

***Pedioplanis lineoocellata* (Duméril and Bibron, 1839) Spotted Sand Lizard**
Collected north of the main research camp on compacted soil. Voucher specimens were collected: PEM R18623, 18653, 18654, 18655 & 18656: 1 adult female, 2 adult males & 2 juveniles (22.25922S; 29.321639E).

Family: SCINCIDAE
Scelotes limpopoensis limpopoensis* FitzSimons, 1930 Limpopo Dwarf Burrowing Skink
All specimens were collected under rocks in sandy soil, except for one specimen which was collected under a rotten tree trunk near a waterhole. These legless skinks lose their tails easily when handled. Voucher specimens were collected: PEM R18631: 1 adult (22.26664S; 29.33089E) and PEM R18651: 1 adult (22.26533S; 29.31711E).

***Trachylepis punctulata* (Bocage, 1872) Speckled Skink**
These skinks were common on the rockier areas of the reserve and were observed on large boulders. Voucher specimens were collected: PEM R18614: 1 adult (22.26533S; 29.35742E).

***Trachylepis striata* (Peters, 1844) Eastern Striped Skink**
Collected around the main research campsite.Voucher specimens were collected: PEM R18640 & 18643: 2 adult (22.25922S; 29.32164E).

***Trachylepis varia* (Peters, 1867) Variable Skink**
Several specimens were observed at the base of trees and big rocks. Voucher specimens were collected: PEM R18630: 1 adult (22.34369S; 29.32783E) and PEM R18635: 1 adult (22.34103S; 29.3347E).

***Trachylepis margaritifer* (Peters, 1854) Rainbow Skink**
One juvenile specimen was collected on the exposed sandstone koppies to the north on the adjacent farm. Voucher specimen was collected: PEM-R 18616: 1 juvenile (22.25439S; 29.31711E).

Panaspis cf. wahlbergii* (Smith, 1849) Wahlberg's Snaked-eyed Skink
One specimen was observed on a rocky koppie overlooking Lizzulea Dam (22.343723S; 29.327936E).

Family: VARANIDAE
Varanus niloticus* (Linnaeus, 1762) Water Monitor
One adult was observed walking on the Lizzulea Dam wall (22.34445; 29.327604E).

Family: LAMPROPHIIDAE

***Boeadon (=Lamprophis) capensis* Duméril and Bibron, 1854 Brown House Snake**

One adult was captured around the main research camp (22.267127S; 29.330639E). No voucher specimen was collected, however a DNA sample was taken.

Dasypeltis scabra* (Linnaeus, 1758) Rhombic Egg-eater

One specimen was collected in trap 1. No voucher specimen was collected, however a DNA sample was taken.

Psammophis subtaeniatus* Peters, 1882 Western Stripe-bellied Sand Snake

One adult specimen was collected in the funnel of trap 2. Voucher specimen was collected: PEM-R 18618: 1 adult male. One additional specimen was observed crossing the road in the reserve.

Family: VIPERIDAE

Bitis caudalis* (Smith 1839) Horned Adder

In total four specimens were observed. Two juveniles provided DNA samples and released. Voucher specimens were collected: PEM-R 18649: 1 adult (22.34369S; 2932783E). PEM R18650: 1 adult (22.26664S; 29.25322E).

Figure 1: Horned Adder (*Bitis caudalis*), Venetia Limpopo Nature Reserve. Photograph by W. Conradie.

Family: CROCODYLIDAE

Crocodylus niloticus* Laurentus, 1768 Nile Crocodile

Nile crocodiles were observed in the Lizzulea Dam (22.34445; 29.327604E).

DISCUSSION

Our survey produced 82 (50 vouchers specimens) individual records of reptiles, covering 28 species (4 snakes, 21 lizards, 2 chelonians and 1 crocodilian). This represents only a third of all reptile species that would be expected to be present in the area (*sensu* Branch 1998, SARCA). No amphibians were seen or collected during the survey, as the conditions were very dry. The survey was not exhaustive, and it is expected that a full species list can only be obtained by repeated surveys during different seasons. Although the total number of species was low, many of the records represent new atlas distribution records for the quarter-degree grid square. In total 11 new atlas records were made for 2229AD, representing 40% of the species we encountered.

In summary, the Venetia Limpopo Nature Reserve has made an important contribution to both conserving and understanding South Africa's biodiversity. The existence of such private reserves are an important part of preserving this nation's rich biological heritage, and for contributing to basic research which will assist us to better conserve our biodiversity.

ACKNOWLEDGMENT

We would like to thank the staff of Venetia Limpopo Reserve, Duncan MacFayden, Oppenheimer & Son Ltd, the farmers adjacent to the reserve for access to their prosperities, the South African National Biodiversity Institute, and the National Research Foundation (Grant number 65778) for logistical and financial support. Research was carried out under permit from Limpopo Department of Economic Development, Environment & Tourism (No. 333-00015).

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Book Reviews

Frogs and Frogging/Paddas en Paddajolyt. By Vincent Carruthers & Louis du Preez. 2011. 108 Pages. 1 CD. Struik Publishers, Cape Town. ZAR 180. ISBN 978-1-77007-914-4

Beyond identification

Where does the public turn to when they want more information on southern African amphibians? Globally available, high quality television documentaries and publicity over threats associated with amphibian declines have led to a public that now has an insatiable appetite for all things amphibian. We have therefore arrived at a point where there is an unprecedented possibility to enthuse large numbers of youngsters into the joys of frogs and frogging. Step in Carruthers and du Preez.

Members of the public need general information on amphibian life histories, as well as information on how they can get involved in conservation, starting in their own gardens. Whether you have a house in the Karoo, Kruger or Klein-swartsbos Kloof, there is something active that you can do to conserve amphibians. And of course it'd be helpful to know what species you can expect to find in these different areas, and how to identify the ones you have. So it is great news that the long time favourite, Frogs and Frogging (Carruthers 2001), has been updated. In this all new rework, Carruthers and du Preez (2011) provide the amphibian enthusiast with practical information of how to study and conserve amphibians, before going on to describe and provide a key for adults and tadpoles in the different biomes of South Africa, not forgetting the reworked and updated CD of frog calls.

For those of you already familiar with Carruthers (2001), this new edition expands on just about every feature of the original. The introduction now runs to 17 pages, 10 pages up on the last edition. It then follows the same format but provides more detail on habitats, based on their division of South Africa into five biomes. The frog identification pages are similarly grouped into biomes, and lastly a new and important feature to this edition of the book is a key and photographs of tadpoles. Note that this work does not extend to southern Africa as did du Preez & Carruthers (2009) and Carruthers (2001). Presumably, there was only enough room for South African species, but this is not a lesser book because of it. Importantly, the book is also available in Afrikaans under the ingenious title: Paddas en Paddajolyt.

In the first part of this book, the authors allow their passion and enthusiasm for frogging to flow across the pages. It concentrates on providing practical information on how to find frogs, how to capture, record and photograph them and how to build frog-friendly habitats for amphibians in urban gardens. This section also sets the scene for the book as a first insight into the world of amphibians for those with a keen interest in South Africa. This is an ideal book to introduce the subject to older children and much needed in terms of the flagging capacity in South Africa's amphibian community (Tolley et al 2011).

In the second part, habitat types for breeding anurans are detailed in each of the five biomes, following Carruthers (2001), providing a really useful way to read just one section of the book before (and after) going to a specific locality. For any amphibian enthusiasts not familiar with the radically different and stunning biomes within South Africa, the photographs of frogs and habitats should be enough to draw them in. The all new third section on tadpoles provides a friendly key to allow those with a real passion to identify what tadpoles they have caught on their frogging trip.

Coupled with the superb images we've come to expect from du Preez & Carruthers (2009) you have a book that makes an excellent contribution to the wealth of literature that Struik now offers to those keen on the amazing biodiversity in South Africa. The authors have clearly devoted a large amount of time and effort into making this book appeal to all ages and stages of engagement providing enjoyment for all. But it is not enough. We need more books to cultivate readers of Frogs and Frogging to the next level. Our ornithological colleagues put us to shame when you consider the amount of literature that is out there for those who want to study birds. It is important for us to realise that we now need to add to the commitment that Carruthers and du Preez have made in authoring this book. The more literature that we can provide (especially in different languages and different media), the more amphibian specialists we'll have out there in the future, and it is a competitive world. If we can't pull them into amphibians, there'll be one more birder instead. Don't think that Carruthers and du Preez have now sewn up the market in books on South African amphibians, they have merely lit the touch paper for the launch of a rocket load of books and other literature for our future amphibian enthusiasts.

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NATURAL HISTORY NOTES

AMPHIBIA: ANURA

PYXICEPHALIDAE

***Pyxicephalus*Tschudi 1838**
African Bullfrogs

REPRODUCTION

African bullfrogs (*Pyxicephalus*) are large, fossorial frogs found throughout the savanna regions of Africa. Adult specimens are most often collected during their short breeding season, when they emerge after heavy rains and breed in a 'lekking' system, which is well-documented (Parry 1982, Clauss & Clauss 2002, Cook & Minter 2004, Braack & Maguire 2005, Du Preez & Carruthers 2009). We examined specimens of *Pyxicephalus edulis* and *P. adspersus* from AMNH, CAS, *M*NHNP, NMZB and TMP (museum acronyms as in Frost 2011), representing samples from throughout Africa. This reveals that *Pyxicephalus* males of all species have hypertrophied testes when in breeding condition. This is congruent with knowledge of (and could have been predicted by) their explosive breeding system, wherein dominant males in the centre of lek clusters may need lots of sperm to fertilize the eggs of multiple females.

Adult specimens in collections often have vivid yellow color in the groin and axilla, which extends onto the ventral surfaces of the animal. Clauss & Clauss (2002) first reported that this yellowing is transient, and only present during the breeding season, presumably from observations gained from husbandry of individual specimens. Previous systematic research had observed femoral glands on the ventral surface of the femur in *Pyxicephalus* and its sister genus, *Aubria* (Ohler 1996, Scott 2005), but during our examination, pectoral glands were also observed for the first time in all species of the genus. These pectoral glands are present on the ventral region of the upper arm, adjacent to the pectoral region, and are elongate triangular in shape. Numerous photographs of live *Pyxicephalus* are now available on the internet, and many show dark orange pigment surrounding the femoral and pectoral glands, suggesting that the secretion from these glands is responsible for the yellow colouration. In addition, the edge of the lower jaw, below the odontoids, also displays this dark coloration, and may thus also contain secretory cells producing the yellow secretion.

Ohler (1996) hypothesized that the femoral glands secrete a chemical substance onto the spawn that is required for kin recognition, which controls tadpole swarming of related individuals, and thus could play a role in the fidelity of the protective breeding male to his own offspring. We hypothesize that the femoral and pectoral glands, and possibly the glandular regions on the lower jaw, secrete the substance that causes the

yellow coloration on *Pyxicephalus* adults during breeding season. This coloration washes out over time in preservation, leaving the preservative fluid yellowed. As the yellowing produced by the femoral and pectoral glands is more pronounced in the diurnal breeding species *P. adspersus* and *P. edulis*, we hypothesize that the yellow colouration from these glands functions in providing a highly visible visual cue to other bullfrog individuals in the area regarding the breeding status of an individual, helping to maintain their complex breeding behavior.

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REPTILIA: SQUAMATA

COLUBRIDAE

***Psammophis* Boie, 1827**
African Whip Snakes

MORTALITY

On the afternoon of 7 March 2010 we were searching under exfoliating stone slabs in a shallowly exposed sandstone formation 5 km east of Fraserburg, Northern Cape, South Africa (31°55'44.4"S; 21°34'45.6"E, 3121DC, 1279 m a.s.l). After what first appeared to be the dried, skeletal remains of a two-headed snake, closer inspection revealed that we had found the remnants of a feeding mishap. As can be seen in Fig. 1, the nearly complete skeleton of a *Pachydactylus* sp. (most likely *P. purcelli* – the most abundant gecko encountered in the vicinity) was partially ingested and preserved within the buccal cavity of a juvenile *Psammophis* spp., a known predator of lepidosaurs (Marais, 2004).

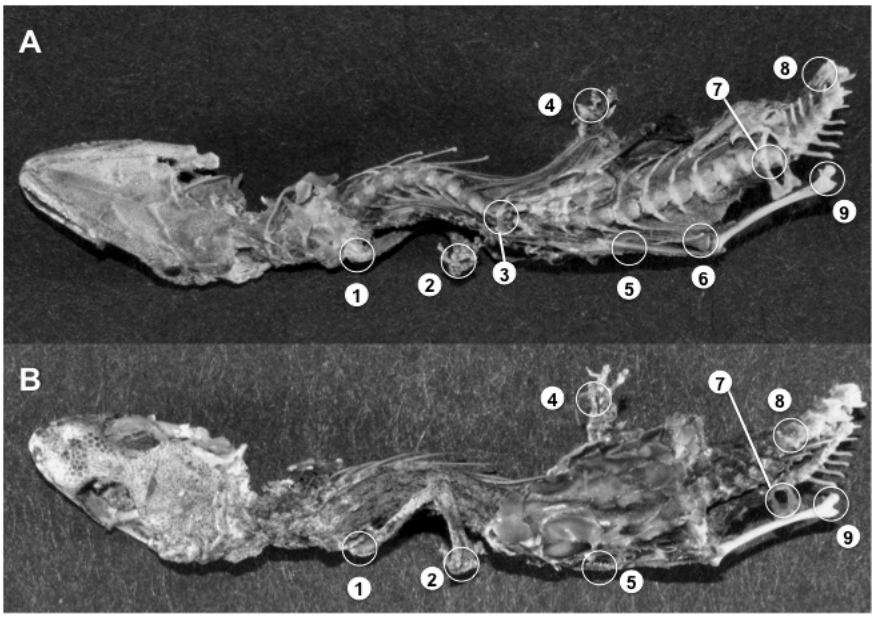

Figure 1: Skeletal remains of a failed predation attempt by a *Psammophis* sp. on a *Pachydactylus* sp. Panel A shows the ventral surfaces and has been flipped horizontally to better mirror Panel B (the dorsal view). The labels are as follows: 1, head of left humerus; 2, left manus/carpus; 3, mandibular symphysis (of *Psammophis*); 4, right pes; 5, left mandible (of *Psammophis*); 6, head of left tibia; 7, pubis; 8, vertebral column (of *Psammophis*); 9, head of left femur.

It appears that the *Psammophis* attempted to ingest the *Pachydactylus* tail first, yet was only able to progress midway. The crack between the two rocks where these specimens were found was both narrow (<5mm) and firmly attached to the surrounding rock, requiring modest effort to remove, and the head of the gecko was found resting at the deepest, shallowest part of the crack. Farquharson (2006) reported finding an expired colubrid in his garden with a Mousebird lodged in the snake's buccal cavity. He proposed that the stiff barbs on the bird's tail feathers prevented successful regurgitation. In this case, it is evident that the gecko tried to avoid predation by wedging itself in a crack and we posit that both the shallow depth of the crack and the snake's slightly recurved teeth conceivably prevented abortion of the feeding attempt, ultimately leading to the death of the grappling pair. This is the first recorded incident of a gecko causing the death of a colubrid via an anti-predation behavior that caused an inability to abort the feeding attempt.

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SCINCIDAE

***Trachylepis spilogaster* (Peters, 1882)**
Kalahari Tree Skink

PREDATION

On 2 August 2011 at 13h30 I observed a dead juvenile *Trachylepis spilogaster*, approximately 30 mm in total length, being presented as food to the chicks of a Familiar Chat (*Cercomela familiaris*) in a Windhoek garden, Namibia (22° 33' 52.7" S; 17° 05'

50.6" E). The juvenile *T. spilogaster* was missing its tail indicating that it was probably actively caught and killed (although not confirmed) by the Familiar Chat and that tail autotomy did not assist it in this case.

Familiar Chat's feed mainly on invertebrates although fruit and human household waste are also taken (Maclean 1985, Hockey et al. 2006). The common Afrikaans name "Spekvreter" was due to it being observed eating the grease from wagon axels, indicating its generalist diet. Although Familiar Chat diet is highly varied I could find no reference to reptiles being included, indicating that the juvenile *T. spilogaster* individual was probably opportunistically taken.

No reference on avian predation of *T. spilogaster* was located and although skinks probably fall prey to a variety of raptors and other predatory birds (See Clauss & Clauss 2002 – *T. wahlbergii* predated by Lilac-breasted Roller) this sighting of Familiar Chat as predator expands the known predators of *T. spilogaster* and skinks in general.

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AGAMIDAE

***Agama planiceps* (Peters, 1862)**
Namibian Rock Agama

DIET

The diet of the Namibian Rock Agama (*Agama planiceps*) is very broadly described by Branch (1995) as "leaves and seeds as well as beetles and insects" while Alexander and Marais (2007) highlight the importance of ants in the diet of various *Agama* spp.

According to Heideman (2002) who analysed *A. planiceps* stomach and intestine remains in the Windhoek area, Namibia, beetles (Coleoptera) were the third most common prey item after ants and honeybees and included the families Coccinellidae, Curculionidae and Tenebrionidae while the ladybird beetle (*Cheilomenes lunata*) was the most commonly consumed beetle species.

On 26 January 2011, at 15h40 an adult female *A. planiceps* was observed in the process of consuming a *Leucocelis* sp. (Fruit Chafer Beetle – Scarabaeidae, Cetoniinae) beetle on marble substrate close to an artificial source of water beneath a few large *Ficus cordata* trees, west of Karibib (21° 56' 32.6" S; 15° 45' 39.6" E) in western central Namibia. The agama had the beetle by the head when encountered, but dropped the now headless beetle, and fled for cover when I approached too close attempting to identify it's partially consumed, prey.

Although *A. planiceps* is known to prey on beetles in general, very few data are available on the actual species included in its diet. This sighting confirms Fruit Chafer Beetles as forming part of the diet of *A. planiceps* in Namibia.

Acknowledgements

John Irish is thanked for identifying the beetle remains from the photograph presented.

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GEOGRAPHICAL DISTRIBUTIONS

REPTILIA: SQUAMATA

COLUBRIDAE

***Dipsadoboa underwoodi* Rasmussen 1993**
Underwood's Nocturnal Tree Snake

Central African Republic, Sangha Lodge, N 02◦59.7': E 16◦13.56' at 378 m ASL. A hatchling was found by Baáka (Pygmy) staff while clearing a stand of bamboo at the forest edge on 10th June 2011. It was buried in the leaf litter. It was caught, photographed (Fig. 1), and released by Rodney Cassidy.

Figure 1: Juvenile *Dipsadoboa underwoodi* from Sanga Lodge, Central African Republic. Photograph by Rodney Cassidy.

This hatchling snake was identified after perusal of the original description (Rasmussen, 1993), which states: "Newly hatched juveniles cream to pale brown above with up to 62 pale brown to brown cross-bands from nape to base of tail, and with additional bands on the tail (up to 19). First dorsal scale row same colour as underside, which is whitish to cream, lips whitish to cream, contrasting with the colour of the rest of the head." An adult from Rabi, Gabon, illustrated by Pauwels & Vande weghe (2008) shows faint banding in the same proportions as the Sangha hatchling. No other western species of *Dipsadoboa* are banded at any stage.

This record extends the range of *D. underwoodi* eastwards by about 360 km from Cameroon and Gabon through Northwestern Congolian Lowland Forest, and is the first record for the CAR. The species also extends westward in lowland forest to Sierra

Leone. This is the fifth species of *Dipsadoboa* reported from the CAR, as Chirio & Ineich (2006) listed *D. duchesnei*, *D. unicolor*, *D. v. viridis* and *D. weileri*.

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GEKKONIDAE

Pachydactylus fasciatus Boulenger, 1888
Banded Thick-toed Gecko

On October 20th 2011, 06:00 a female *Pachydactylus fasciatus* (Fig. 1) was found and photographed by Rupert Huber under the roof of Fisherman's Inn Restaurant's facilities, Namibia, Swakopmund Destrict, road C 34 between Hentiesbaai and Cape Cross, 21°54'15,4" S, 14°06'53,5" E, altitude 6 m a.s.l. The animal was not collected as a voucher specimen because of a lack of collecting permits, and was therefore released at the point of capture. The animal was in very good condition and well nourished.

Distribution of *P. fasciatus* has been reported as northern Damaraland and Kaokoveld (Branch 1998). The legitimacy of a record from Walvis Bay in the Zoological Museum Berlin (ZMB 44031) has been questioned by Bauer & Branch (1991), as the specimen is suspected to be *Chondrodactylus laevigatus* or is otherwise mislabeled. Walvis Bay is suspected to be the place of shipping for this specimen rather than its locality (Bauer & Branch 1991; Bauer & Lamb 2003). Other rather unusual records are known from Kuibis (ZMB 23374) as well as Warmbad (TM 79074). Although the locality of the Kuibis record has been questioned by Bauer & Branch (1991), it was later regarded as a possibly legitimate record (Bauer & Lamb 2003). The above specimen marks another unusual record of *P. fasciatus* outside the distribution area given by Branch (1998) and almost at the Namibian coast, where no other record has been reported yet beside the specimen from Walvis Bay.

Figure 1: Adult female *Pachydactylus fasciatus*, photographed at Fisherman's Inn, Swakopmund District, Namibia.

Banded Thick-toed geckos usually inhabit crevices in rocky outcrops and are also found under stones in rocky areas. The Fisherman's Inn is not surrounded by suitable habitat for *P. fasciatus*, which makes it highly likely that this specimen was introduced to the area by humans. However, taking into account the asumptions from Bauer & Lamb (2003) regarding distribtuion of *P. fasciatus* in southern Namibia and the ability of *P. fasciatus* to adapt to changing environments very well (Barts 2002; Barts & Schneider pers. obs.), it can not be ruled out that *P. fasciatus* in fact naturally occurs in this area as well as Walvis Bay, although we regard it as unlikely.

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GEKKONIDAE

***Hemidactylus mabouia* (Moreau De Jonnès, 1818)**
Moreau's Tropical House Gecko

On October 24th 2011, 20:00 a *Hemidactylus mabouia* was found and photographed (Fig. 1) by Rupert Huber at the facilities of Sossus Oasis campsite, Sesriem, Maltahöhe Destrict, Namibia, 24°29'33,7" S, 15°48'13,4" E, altitude 786 m a.s.l.. The animal was not collected as a voucher specimen due to the lack of collecting permits, and the gecko was therefore released at the point of capture. The animal was in good condition.

Hemidactylus mabouia is native to parts of south and central Africa and its range within sub-Sarahan Africa is extending rapidly due to accidental translocation by humans. Haagner & Branch (1996) report a record from Bedford, Eastern Cape Province, where a specimen was found in a cargo truck. Furthermore they observed a specimen at Port Elizabeth harbour which originated from a Durban cargo ship. Douglas (1990) reports another population from Bloemfontein, Free State Province, which was established from translocated individuals. Sesriem is a popular accomodation spot for tourists visiting Sossusvlei Dunes, and it is therefore very likely that the animal was introduced to the locality by visitors to the site.

Broadley (1977) shows a map (p. 11) of the distribution of Moreau's Tropical House Gecko in Southern Africa. It shows a record from the Caprivi-Strip (near Ngala, Chobe River) and is so far the only record from Namibia, although not listed under the localities. The specimen from Sesriem is the western most record of *H. mabouia* to date, compared to its former most western record in the Okavango Delta, Botswana, approximately 1160 km to the east (Broadley, 1977).

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Figure 1: Adult *Hemidactylus mabouia*, photographed at the Sossus Oasis campsite, Sesriem, Namibia.

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ABOUT THE COVER

***Smaug giganteus* Smith 1844**
Giant Girdled Lizard or Sungazer

Smaug giganteus is a charismatic Girdled Lizard species commonly known as the Sungazer. This name originates from its characteristic basking stance that entails lifting the anterior portion of its body off the ground and facing the sun. The species is also known as *Ouvolk* amongst landowners familiar with the species, a name attributed to the extremely sedentary position of a basking Sungazer. Stanley et al. (2011) recently re-assigned the Sungazer from the genus *Cordylus* to the genus *Smaug* based on results from mitochondrial DNA analyses, along with the congeners *S. warren warreni, S. w. barbertonensis, S. w. depressus, S. vandami, S. breyeri, S. mossambicus,* and *S. regius*.

The Sungazer is endemic to the Highveld grasslands of the northern Free State and south-western Mpumalanga. These grasslands are undergoing irreversible transformation as a result of crop and livestock agriculture, mining, and urban development. Coupled with the pressure resulting from of the illegal removal of Sungazers from the wild for the pet and traditional medicine trades and a low fecundity, the species is facing a potentially rapid decline if conservation measures are not put in place. The species is listed on CITES Appendix II, and was first recognized as Vulnerable in the IUCN Red List in 1994 (Groombridge, 1994), however this classification is based on out-dated survey data from De Waal (1978). The conservation status of the species has recently been re-evaluated as Vulnerable (Bates et al., In Press), however this assessment was also based on limited information. The true conservation status of the species thus remains poorly understood.

Conservation concerns for the species have led to the initiation of a Sungazer conservation project co-ordinated by the Endangered Wildlife Trust's Threatened Grassland Species Programme. The project is being undertaken by Shivan Parusnath, an MSc student at the University of the Witwatersrand, and aims to assess the Sungazer's current global population size, extent of distribution, changes in population densities at previously surveyed sites, and re-evaluate the conservation status of the species with the resultant information. The project also aims to identify areas where the species would most benefit from formal protection. In addition, the University of the Witwatersrand and EWT are collaborating with Prof. Antoinette Kotze at the National Zoological Gardens to examine genetic variation within the species.

The specimen pictured on the cover is a sub-adult male that was photographed in Harrismith by Stuart Nielsen. Photographs such as this are uncommon for the species as Sungazers are extremely flighty and will retreat swiftly into their burrows when they feel threatened, making nearby approach difficult.

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African Herp News publishes succinctly annotated species lists resulting from local surveys of amphibians and reptiles on the African continent and adjacent regions, including the Arabian peninsula, Madagascar, and other islands in the Indian Ocean. The area surveyed may be of any size but should be a defined geographic unit of especial relevance to the herpetological community. For example, surveys could address declared or proposed conservation reserves, poorly explored areas, biogeographically important localities or administrative zones. The relevance of survey results should be judged by the extent that these records fill distributional gaps or synthesise current knowledge. As far as possible survey records should be based on accessible and verifiable evidence (specimens deposited in public collections, photos submitted illustrating diagnostic features, call recordings and sonograms, or DNA sequences accessioned into international databases). Survey results should be presented in the same format as for Articles (described above), and must additionally include a section titled **SYSTEMATIC ACCOUNT** (bold) comprising *Scientific name* (including author citation), location and habitat, evidence (including registration numbers and location of vouchers), and comments (where required). **REFERENCES** should follow the standardised formats described below.

NATURAL HISTORY NOTES

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: **FAMILY**; ***Scientific name*** **(including author citation)**; **English common name** (using Bill Branch's *Field Guide to Snakes and Other Reptiles of Southern Africa*, third edition, 1998, for reptiles; and Du Preez & Carruthers' *A complete guide to the frogs of southern Africa*, 2009, for amphibians as far as possible); **KEYWORD** (this should be one or two words best describing the topic of the note, e.g. Reproduction, Avian predation, etc.); the Text (in concise English with only essential references quoted). The body of the note should include information describing the locality (Country; Province; quarter-degree locus; location; latitude and longitude in D° M' S" format; elevation above sea level), providing the date (day, month, year), naming the collector(s), and stating the place of deposition and museum accession number or describing the fate of the animal. **REFERENCES** should follow the standardised formats described below. **SUBMITTED BY: NAME**, Address, E-mail.

GEOGRAPHICAL DISTRIBUTION

Brief notes of new geographical distributions of amphibians and reptiles on the African continent and adjacent regions, including the Arabian peninsula, Madagascar, and other islands in the Indian Ocean. Records submitted should be based on specimens deposited in a recognised collection. A standard format is to be used, as follows: **FAMILY**; ***Scientific name* (including author citation)**; **English common name** (using Bill Branch's *Field Guide to Snakes and Other Reptiles of Southern Africa*, third edition, 1998, for reptiles; and Du Preez & Carruthers' *A complete guide to the frogs of southern Africa*, 2009, for amphibians as far as possible). The body of the note should include information describing the locality (Country; Province; quarter-degree locus; location; latitude and longitude in D°M'S" format; elevation above sea level), providing the date (day, month, year), naming the collector(s), and stating the place of deposition and museum accession number, or fate of the animal. The body should also include information on the size, colour and taxonomic characters (e.g., scalation, webbing) used to identify the specimen, as well as the distance to the nearest published locality. **REFERENCES** should follow the standardised formats described below. **SUBMITTED BY: NAME**, Address, E-mail.

REFERENCES

Reference formatting is similar to *African Journal of Herpetology*. References should be listed in alphabetical order and should refer only to publications cited in the text. References should be in the following format:

ALEXANDER, G.J. 2007. Thermal biology of the Southern African Python (*Python natalensis*): does temperature limit its distribution? Pp. 50-75. In HENDERSON, R.W., AND POWELL, R. (eds.), *Biology of the Boas and Pythons*. Eagle Mountain Publishing, Utah.

BRANCH, W. R. 1998. *Field guide to the snakes and other reptiles of southern Africa*. Third edition. Struik Publishers. Cape Town.

COTTONE, A.M. 2007. Ecological investigations of the Psammophiidae (Squamata: Serpentes). Unpubl. MSc thesis. Villanova University, Pennsylvania.

FROST, D.R. 2010. Amphibian Species of the World: an Online Reference. Version 5.4 (8 April, 2010). http://research.amnh.org/vz/herpetology/amphibia/ (accessed 27 April 2010).

LAMB, T., BISWAS, S. & BAUER, A. 2010. A phylogenetic reassessment of African fossorial skinks in the subfamily Acontinae (Squamata: Scincidae): evidence for parallelism and polyphyly. Zootaxa, 2657:33 – 46.

Note that author names are set as SMALL CAPS, not ALL CAPS, and that Journal Titles are not abbreviated. Formatting should be achieved using paragraph settings and NOT tabs or spaces. Citations should occur in chronological order: (Branch 1998, Alexander 2007, Cottone 2007, Frost 2010, Lamb et al. 2010). For papers with more than two authors, only the first author should be named in the text (e.g., Masterson et al. 2010) without italicising "et al.". Cite unpublished data as in press, e.g., Marais (in press), which then appears in the list of references, or as J. J. Marais (pers. comm.), in which case Johan J. Marais's name and institutional affiliation should appear under Acknowledgements. Unpublished reports should be cited as personal communications.

TABLES, FIGURES, AND PHOTOGRAPHS

Tables should be submitted as separate MS Excel files. Tables should be small enough to fit onto an A5 page, and should NOT contain any vertical lines. Photographs and figures should be submitted as separate JPEG files, and not embedded in the text. They should preferably be 500—800 KB in size, and not more than 1.5 MB. The name of the photographer should be given, if not taken by the author of the submission. Each table, figure, or photograph, needs to be associated with an appropriate caption that should follow the reference list in the submission.

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AFRICAN HERP NEWS

Number 55 DECEMBER 2011

CONTENTS

ISSN 107-6187