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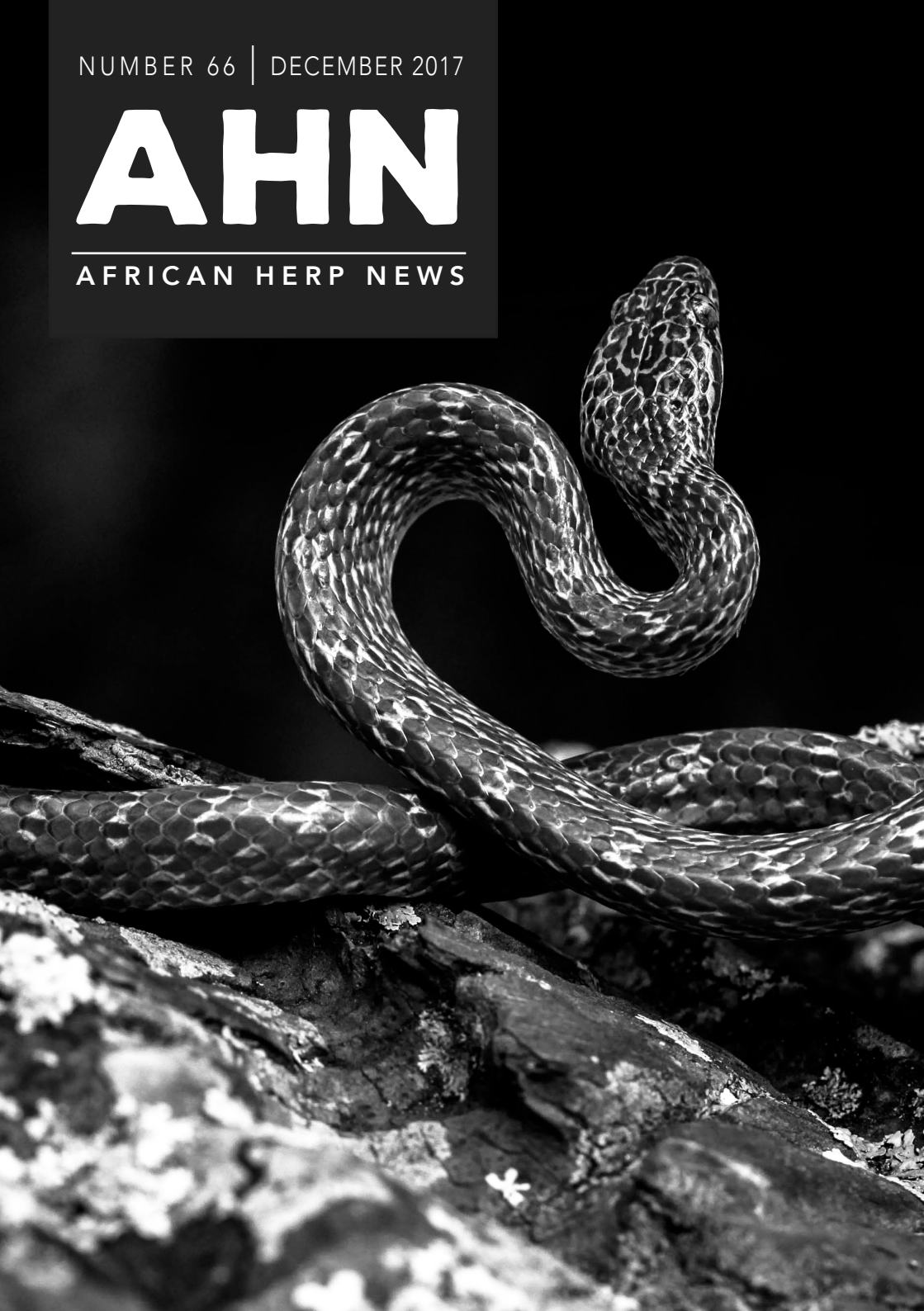

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The HAA is dedicated to the study and conservation of African reptiles and amphibians. Membership is open to anyone with an interest in the African herpetofauna. Members receive the Association's journal, African Journal of Herpetology (which publishes 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: *Dipsadoboa aulica*
Photograph by: Nicholas Telford

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of this study was to measure the T_{target} of sungazers and to assess the impact of body posture and orientation on thermoregulation. iButtons were modified to function as cloacal probes, set to record temperatures every minute and were inserted in the cloacas of 17 adult sungazers. Sungazers were released at their respective burrows where camera traps recorded photographs every minute of the diurnal cycle to record behaviour. Copper models recorded the range of operative temperatures; an exposed model set up in "sungazing" posture, and a model inserted 0.5 m into an active sungazer burrow. Sungazers achieved a T_{target} of 30 ºC ± 0.7 ˚C (Mean ± SD) and remained at this range for 371 ± 162 minutes (Mean ± SD) per day. Body posture significantly affected T_b; the anterior body-up (high) and anterior body-up (low) postures resulted in higher T_b. Heating rate during the anterior body-up (high) posture was 1.8 °C ± 2.7 ºC per 15 minutes. Lizards heated faster when facing away from the sun (1.9 ºC ± 2.1 ºC per 15 min) and spent proportionally more time in this orientation in the morning when Tbs were lower than Ttarget. Our data suggest that sungazers would be able to tolerate changes in environmental temperatures by adjusting their thermoregulatory behaviour.

OVERVIEW OF THE NEMATODES PARASITIZING AMPHIBIANS FROM SOUTH AFRICA

ROMAN SVITIN[1]* & LOUIS H. DU PREEZ[1,2]

[1]African Amphibian Conservation Research Group, Unit for Environmental Sciences and Management, North West University, Potchefstroom, South Africa. [2] South African Institute for Aquatic Biodiversity, Private Bag 1015, Grahamstown 6140, South Africa.

There are 24 species of nematodes known from more than 30 species of South African amphibians. Although nematodes comprise the biggest part in endoparasite communities of African amphibians (> 70%), their biodiversity and taxonomy are still poorly described. Nematodes known from southern African amphibians include Rhabdiasiade – 8 species; Cosmocercidae - 5 species; Camallanidae – 5 species; Amphibiophylidae – 2 species; Molineidae – 1 species; Hedruridae – 1 species and Capillariidae – 1 species. According to the literature, the most common nematodes are *Cosmocecra ornata* (Dujardin, 1845) Diesing, 1861, reported from 13 amphibian species and *Aplectana macintoshi* (Stewart, 1914) Travassos, 1931 reported from 15 species of amphibians. However, both species of nematodes have an extremely wide host range (77 species of amphibians and reptiles in *C. ornata* and 68 in *A. macintoshi*) and geographical distribution (Palaearctic, Oriental, Ethiopian and few spots in Neotropical region). As it was investigated recently on the examples of European nematodes *Oswaldocruzia filiformis* Travassos, 1917 (family Molineidae) and *Rhabdias bufonis* Schrank 1758 (family Rhabdiasidae), that such polyhostality in most cases is the result of misidentification and authors really dealt with the other, recently described species. In our opinion, the nematode fauna parasitizing amphibians from South Africa might be much more diversified and it will be outlined in future detailed investigations of morphology and molecular studies.

THE CAPE WHIP SNAKE: A PRELUDE TO RESOLVING THE *PSAMMOPHIS LEIGHTONI* COMPLEX

JODY M. TAFT[1,2]*, KRYSTAL A. TOLLEY[2] & BRYAN MARITZ[1]

[1]Department of Biodiversity and Conservation Biology, University of the Western Cape, Private Bag X[17], Bellville 7535, South Africa; [2]South African National Biodiversity Institute, Kirstenbosch Research Centre, Cape Town, South Africa.

Subspecies of the *Psammophis leightoni* complex (*P. leightoni, P. namibensis,* and *P. trinasalis*) were elevated to species status in 2002 on the basis of poorly-defined ecological differences and their allopatric geographic distribution ranges. A 2008 phylogeny of Psammophiidae did not support the specific status of *P. leightoni* and *P. namibensis* although limited sampling (one sample per putative species) limited phylogenetic inference. *Psammophis leightoni*, endemic to the Western Cape, is currently listed as Vulnerable [B1ab(ii)] and is threatened, largely by habitat loss. However, the current taxonomic uncertainty surrounding the complex poses a significant challenge to the conservation of *P. leightoni* which would not be considered threatened if *P. leightoni* and *P. namibensis* represent a single taxon. Although these species are currently viewed as allopatric, the area separating their ranges is poorly sampled and may represent a sampling artefact. We aimed to assess whether suitable climatic conditions exist between the current distributions of *P. leightoni* and *P. namibensis*. Using MAXENT, we modelled the distributions of each species. Our models provided good fits of the data, producing high area under the curve (AUC) statistics of the receiver operating characteristic (ROC) plots (P. leightoni AUC: 0.995, P. namibensis AUC: 0.992). We also supplemented the AUC scores with true skill statistics (TSS) to remove sensitivity to area size and species prevalence, and maintained good model performance (P. leightoni TSS: 0.993, P. namibensis TSS: 0.986). Using conservative model thresholds, we show no species connectivity, suggesting that currently, genetic exchange between these two

taxa is unlikely. Our findings support the elevation to species status, but we note that vicariance between these two distributions might be recent. Thus our results do not preclude these two taxa representing a single species. With the conservation status of *P. leightoni* affected by the clarification of this complex, we recommend these preliminary models be used in conjunction with further phylogenetic analysis for conclusive species delimitation.

COUNTING EGGS BEFORE THEY HATCH: IMPLEMENTATION OF THE MONITORING AND SURVEILLANCE PROTOCOLS FOR KZN'S THREATENED FROG SPECIES

JEANNE TARRANT[1]* &
ADRIAN ARMSTRONG[2]

[1]Threatened Amphibian Programme, Endangered Wildlife Trust, Building K[2], Pinelands Office Park, Ardeer Road, Modderfontein, 1609, South Africa;
[2]Biodiversity Research & Assessment Division, Scientific Services, Ezemvelo KZN Wildlife, P.O. Box 13053, Cascades 3202, South Africa.

Monitoring is an essential means of detecting amphibian declines and is being increasingly implemented in different parts of the world to gauge trends and spur conservation interventions. Development of monitoring and surveillance protocols was initiated in 2013 for four of KwaZulu-Natal's threatened frog species using Ezemvelo KZN Wildlife Norms and Standards for Surveillance and Monitoring Plans for Biodiversity. The methods have been tested for two species to date, the Critically Endangered *Hyperolius pickersgilli* (Pickersgill's reed frog) and the Endangered *Natalobatrachus bonebergi* (kloof frog). Some initial work using automated microphone arrays have also been tested to measure densities and special utilisation of the Endangered mistbelt chirping frog, *Anhydrophryne ngongoniensis.* Data were collected seasonally at three sites in KZN for *H. pickersgilli* using both automated and manual audio transect survey methods. *Natalobatrachus bonebergi* was monitored monthly throughout the year at two sites in KZN and three reserves in the Eastern Cape using transect egg clump counts. Data for Vernon Crookes Nature Reserve on the KZN south coast have been collected since December 2013 and provide the most comprehensive dataset of all sites based on egg clump counts. The primary response variable for detecting trends for this species is total number of egg clumps and a secondary response variable is mean number of eggs per clutch, both of which give an indication of breeding activity and potential population size. Data on additional variables were also collected to provide information on habitat preferences and detect emerging threats. Monthly monitoring has shown the species to have a protracted breeding season (August-June), but that the drought conditions in 2014 and 2015 severely affected breeding activity. In all cases, these monitoring efforts are a joint collaboration between provincial conservation authorities, academic institutions, NGOs and volunteers, demonstrating the valuable contributions of citizen scientists to species conservation.

A SPATIAL AND TEMPORAL ASSESSMENT OF SNAKE OCCURRENCES IN WINDHOEK, NAMIBIA BETWEEN AUGUST 2015 AND APRIL 2016

FRANCOIS THEART

Department of Agriculture and Natural Resources Sciences, Namibia University of Technology, Private Bag 13388 Windhoek, Namibia.

Conflict between snakes and people in urban areas is a problem Windhoek shares with many cities around the world. Surrounded by farm and conservation land, this capital city of Namibia experiences regular snake occurrence in and around houses, gardens and industrial sites. This study used snake removal data from the city's designated snake removal institution, Snakes of Namibia, in order to record numbers and diversity of snakes occurring in the city during the summer of 2015-2016, and identify possible reasons for conflicts. It also provides a baseline for annual biodiversity monitoring with snakes as a proxy for ecosystem community dynamics. Over the period August 2015 to April 2016, 182 snakes of 12 species were removed from homes, gardens and industrial sites in the city. Puff adder (*Bitis arietans*) which represented 36% (n = 65) and zebra snake (*Naja nigricincta*) 29% (n = 53) dominated removal incidents. Of the other species, only brown house snake (*Boaedon capensis*) 11% (n = 21) and boomslang (*Dispholidus typus viridis*) accounted for more than 10% of removals. Monthly snake removals correlated highly with monthly total rainfall, with highest number of incidents reported in January 2016 (23%, n = 41). Incidents were concentrated in the eastern and southern suburbs, as a result of garden irrigation although the study could not assess whether reporting diligence was consistent across all suburbs. Although 81% (n = 147) of snake incidents involved venomous species no snakebite incidents were reported during the period. The study provides a baseline for year-on-year monitoring, a useful parameter for the city's biodiversity programme.