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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, geographical distribution notes, herpetological survey reports, venom and snakebite 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.

COVER PHOTOGRAPH: *Hyperolius lateralis* from Ziika Forest, near Entebbe, Uganda. Photograph by Andre Coetzer. Canon EOS 7D (1/250, F20, ISO 200).

ANNOUNCEMENTS

10th Conference of the Herpetological Association of Africa
11-14th January 2011
Cape Town, South Africa
Venue: University of Cape Town, Kramer Building

With the 10th Conference of the HAA looming, two pieces of information need to be passed on to delegates.

Student presentations

At the 10th HAA conference prizes will be awarded to the best oral presentation by student (R1500), as well as the best poster or descriptive presentation by a student (R1000). Student presentations will be assessed by a panel of judges. Presentations will be judged on the quality of the science, the quality of the visual aids, the clarity of delivery, the manner in which questions are answered, and time management.

Photographic competition

The 10th HAA conference will include a photographic competition. Delegates may submit images that adhere to the theme "herpetology". Images should be printed to A4 (no bigger) and will be adhered to display boards with double sided tape (removal at your own risk). Delegates may enter up to three images.

The winning image will be chosen by a panel, and will be printed on the cover of the next issue of *African Herp News*. Images will be judged on their technical quality (focus, composition, exposure) and charisma. Image processing is allowed but should be limited to cropping, contrast adjustment, saturation adjustment, and sharpening. Images that are "over-processed" will be penalised.

Delegates wishing to enter should bring their printed photos and a small information card per image (ca. 1cm x 3cm) with the entrant's name and a few words about the photo which you can stick up with the photo. Delegates wishing to include their images in the auction should contact Bill Branch (wrbranch@bayworld.co.za) in this regard.

Should you have any further queries regarding the 10th Conference of the HAA, please visit the conference website at https://sites.google.com/site/10haacapetown/, or contact the organising committee: **Krystal Tolley** (k.tolley@sanbi.org.za), **John Measey** (john@measey.com), **Jessica da Silva** (jessica.m.dasilva@gmail.com), **Keshni Gopal** (k.gopal@sanbi.org.za), **Rowena Stevens** (r.stevens@sanbi.org.za).

ARTICLES

POPULATION ESTIMATE OF *BRADYPODION MELANOCEPHALUM* AT THE DURBAN INTERNATIONAL AIRPORT EASTERN PRECINCT

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The taxonomic status of the coastal population of *Bradypodion melanocephalum* (Gray 1865) is uncertain (Raw 1976, 1995, 2001, Bourquin 2004, Tolley *et al*. 2004, Tolley & Burger 2007). Armstrong (2009) considered the coastal population to be a distinct population worthy of conservation action in its own right. This coastal population is threatened, particularly by habitat destruction due to urbanization and industrialization, sugarcane farming, tree farming and alien plant invasions (Raw 1976, 1995, Armstrong 2008, 2009). When aiming to conserve a fragmented population, the largest subpopulations, particularly those that are connected, should be protected to ensure gene flow, avoid inbreeding depression and reduce genetic drift. These factors contribute to extinction risk in both wild populations and captive populations (Templeton *et al*. 2001, Frankham 2005).

A population size in the order of thousands of adults is large enough to ensure the survival of many vertebrate species with a 99 % probability of persistence for 40 generations (Reed *et al*. 2003). The exact viable population size will be dependent on certain life history factors such as the mating system. The mean viable population size for the five lizard species included in the study of Reed *et al*. (2003), which included no chameleon species, was 6 422 adults. A viable population size for dwarf chameleons is therefore likely to be in the order of thousands of adults. However, in regions of highly fragmented habitat such as the urban environment, several small but connected subpopulations may ensure long-term persistence. Cook (2008) found that a habitat fragment of 2.4 hectares in an urban/nature reserve interface in Cape Town contained an estimated 458 Cape dwarf chameleons *Bradypodion pumilum* (Daudin 1802). Reisinger *et al*. (2006) estimated that a naturally-isolated scarp forest of 265 hectares contained 2 453 adult uMlalazi dwarf chameleons *B. caeruleogula* (Raw & Brothers 2008). The latter figure is further evidence that a viable population for *Bradypodion* species in KwaZulu-Natal is likely to consist of several thousand adults.

A high demand for developable land exists in the eThekwini Municipal Area (Armstrong 2008), especially flat land near the Durban port. An example is the Durban International Airport Eastern Precinct (DIAEP). Transformation of this land into industrial sites is an imminent possibility, yet this area appears to be very important for the conservation of the coastal population of *B. melanocephalum* (Armstrong 2009). The number of *B. melanocephalum* in the DIAEP was unknown and could not be estimated as no density estimates have been reported for *B. melanocephalum*. The number of *B. melanocephalum* in the DIAEP was therefore estimated from sightings along walked

transects in 2005 to determine whether a potentially viable population exists in that area.

METHODS

The boundary of the DIAEP was mapped simply by walking the boundary and recording appropriate waypoints using a GPS receiver. This map was then used to georeference a colour aerial photograph of the DIAEP and adjacent areas that was taken in 2003, using the Idrisi GIS (Eastman 1999). The boundaries of the three main chameleon habitats (Fig. 1) were digitized off this photograph and the area of each was estimated. Habitat A (13.53 ha) consisted of short mown grassland around high-frequency radio masts. Habitat B (49.79 ha) consisted of dense alien plant invasions with small patches of indigenous trees, shrubs & reeds. Habitat C (54.84 ha) was bushy grassland with some reedbeds and light to moderate alien plant infestations. Roads and grassed tracks could not be easily distinguished on the aerial photograph and therefore were considered part of the habitats.

To assist in deciding where to place the strip transects, taking cognizance of the constraints on the availability of people to carry out the sampling, counts of chameleons were made along sections of the DIAEP boundary on four occasions during the period May to July 2005. In total, ten individuals were sighted along 1 055 m of habitat A perimeter (*ca*. 10 chameleons per km), 17 individuals were sighted along 2 882 m of habitat B perimeter (*ca*. 6 per km) and 105 individuals were sighted along 2 486 m of habitat C perimeter (*ca*. 42 per km). Half the number of dwarf chameleon locations occurred within 20 m of the boundary fence in both habitat A and habitat B, whereas approximately two-thirds of the number of dwarf chameleon locations were within 20 m of the boundary fence in habitat C. These results suggested that habitat C would have by far the highest number of *B. melanocephalum*. Therefore, two strip transects were set up in habitat A, four in habitat B, and ten in habitat C (Fig. 1). Sampling along transects in the dense alien plant thickets (habitat B) was practically impossible, and so three of the four transects were placed along the edge and only one into the interior of this habitat.

Each strip transect was 10 m wide, except along the edge of habitat B. The effective transect width along the edge of habitat B was 3.45 m, calculated using the program Distance (Thomas *et al*. 2003). The CartaLinx spatial data builder programme (Hagan *et al*. 1998) was used to determine if any of the *B. melanocephalum* locations fell outside a strip transect, and such locations were excluded from the analyses. The relatively small sample size (the total transect area was approximately 4 % of the area of the DIAEP) was due to logistical and airport security constraints. The number of adult *B. melanocephalum* in each habitat was estimated using the proportion of adults in the total number of dwarf chameleons observed along transects in the habitat and from the calculated average density of adults per hectare in that habitat. The overall estimated adult density for the DIAEP was determined by dividing the total number of adults recorded over all habitats by the area sampled.

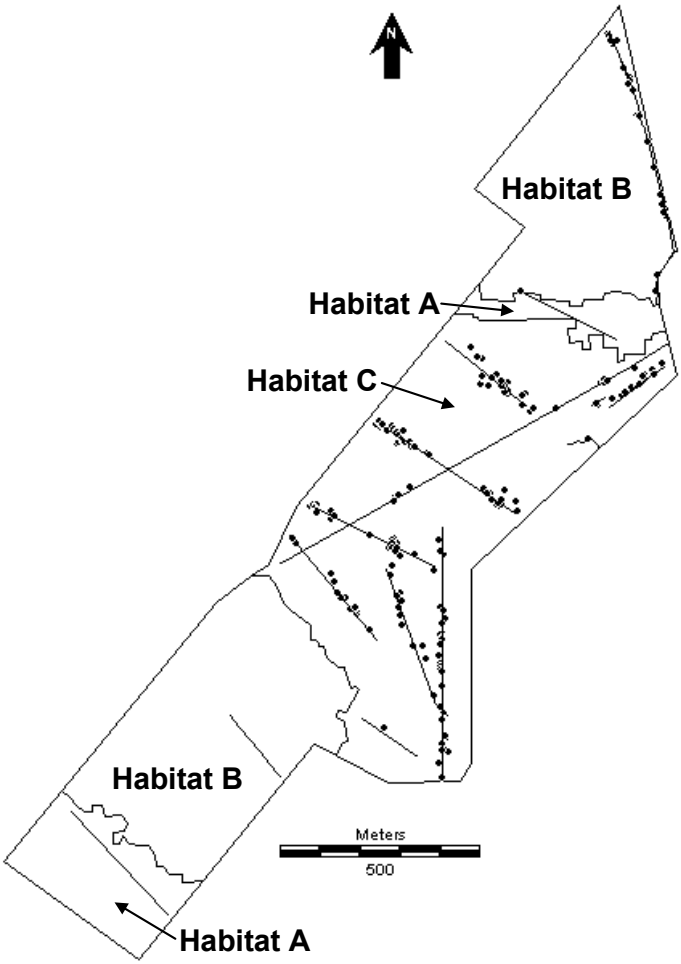

Fig. 1: Habitats, transects (lines) and sightings (dots) of *B. melanocephalum* during sampling at the Durban International Airport Eastern Precinct.

RESULTS

An estimated 1 731 *B. melanocephalum* of various ages were present at the DIAEP during the survey period (Table 1). The density estimates for the different habitats varied considerably. Only one individual was recorded along the two transects in habitat A, while several were recorded along at least some transects at the edge of habitat B and in habitat C (Fig. 1). Density estimates ranged from zero in subhabitat Bi to 98 per hectare in subhabitat Be, with habitat C having an intermediate density estimate of 29 per hectare. However, habitat C had the greatest estimated number of *B. melanocephalum* (1 564; Table 1) due to its relatively large total area of suitable habitat. The overall adult density estimate for *B. melanocephalum* in the DIAEP during the study period was 12.02 adults per hectare.

Table 1: Results of the transect counts and estimated numbers of *Bradypodion melanocephalum* in each habitat type at the Durban International Airport Eastern Precinct.

Habitat	Date	Number of observers	Transect length (m)	Transect area (ha)	Number of chameleons	Density of chameleons (#/ha)	Total habitat area (ha)	Mean density of chameleons (#/ha; ± 1 SD)	Estimated population size
A	17/08/2005	4	354.87	0.35	0	0			
	04/10/2005	4	256.02	0.26	1	3.91	13.53	1.95 (± 2.76)	26
Bi	29/07/2005	4	199.99	0.20	0	0	48.35	0	
	17/11/2005	5	139.26	0.06	7	125.66			
	17/11/2005	4	62.15	0.02	2	80.45			
Be	17/11/2005	4	515.6	0.10	9	87.28	1.44	97.80 (± 24.37)	141
	29/07/2005	4	1106.86	1.11	8	7.23			
	17/08/2005	4	169.21	0.17	0	0			
	17/08/2005	3	622.32	0.62	34	54.63			
	23/08/2005	4	214.36	0.21	10	46.65			
	23/08/2005	5	97.48	0.10	3	30.78			
	04/10/2005	4	335.87	0.34	8	23.82			
	19/10/2005	5	260.69	0.26	6	23.02			
	19/07/2005	5	342.53	0.34	8	23.36			
	27/10/2005	3	404.1	0.40	25	61.87			
C	27/10/2005	4	360.07	0.36	5	13.89	54.84	28.52 (± 20.24)	1564

DISCUSSION

The estimated number of adult *B. melanocephalum* in the 172 hectares of the DIAEP and adjoining area (Armstrong 2009) was 2 067 in 2005, assuming an overall density of 12.02 adults per hectare. This number may be viable in the medium-term, but connectivity between this sub-population and others would be required to ensure long-term viability. It would be preferable that no industrial development proceeds on the DIAEP and adjoining area. If no connection with other sub-populations is possible, translocation of the *B. melanocephalum* off-site to one or more relatively nearby potential recipient areas with no or few *B. melanocephalum* could be considered (see Armstrong 2008). However, the recipient areas must have been suitably rehabilitated and legally protected before the translocation takes place, and afterwards managed for the chameleons. An aim would be to maintain around 7 000 adults (Reed *et al*. 2003) in the recipient region by means of connections between suitable habitat areas.

Acknowledgements

I gratefully thank all the volunteers and my work colleagues who enthusiastically assisted with the chameleon counts, especially Simon & Tessa Dean, Brian & Lorna Skea, John Craigie, Stuart Gray and Melissa Rietbrock, who also organized the Durban International Airport Eastern Precinct logistics. An anonymous reviewer improved the manuscript.

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Bradypodion melanocephalum from Durban North, KwaZulu-Natal, South Africa. Photograph by Johan Marais (EOS 1D Mark III, 1/80, F9, ISO 200)

NATURAL HISTORY NOTES

REPTILIA: SQUAMATA

ATRACTASPIDIDAE

***Aparallactus capensis* Smith, 1849**
Black-headed Centipede-eater

ENVENOMATION

Black-headed Centipede-eaters (*Aparallactus capensis*) are small snakes with a maximum snout-vent length of 324 mm. Although highly effective at killing centipedes, their venom is considered harmless to humans (Broadley 1983, Branch 1998, Broadley et al. 2003, Marais 2004, Alexander & Marais 2007). Individuals have a small gape and seldom manage to pierce the skin of a human when biting (Broadley 1983, Alexander & Marais 2007). Envenomation of humans has not, to our knowledge, been previously reported.

A specimen measuring 260 mm snout-vent length bit onto the author's index finger, on the inside of the second phalanx. The snake was permitted to chew for approximately one minute, during which time it moved its jaws around to get a better grip on the skin. The venom immediately caused a mild burning pain. Within 10 minutes the site exhibited mild swelling, which persisted for approximately four hours. The area on top of the second phalanx became light in colour within half an hour and remained very sensitive for nearly two days. The finger recovered fully within two days.

Acknowledgements

Thanks to Paul Moler who read through and commented on this note.

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ATRACTASPIDIDAE

***Atractaspis bibronii* Smith, 1849**
Bibron's Stiletto Snake

DIET

Bibron's Stiletto Snake (*Atractaspis bibronii*) is a fossorial snake that feeds on a variety of snakes, limbless lizards, amphisbaenians, young rats and mice, frogs and other snakes (Broadley 1983, Branch 1998, Spawls et al. 2002, Marais 2004). An adult specimen measuring 325 mm (SVL) + 23 mm (TL), was caught on 13 December 2005 under a piece of rubble along Badulla Road, the Bluff, Durban (S 29º 57' 23", E 30º 59' 01"). The snake appeared to be gravid, with lumps clearly visible along the belly. Upon dissection the snake was found to contain 32 *Panaspis walbergii* eggs in different stages of digestion. The empty shells lower in the gut were indented and fitted tightly into one another, whereas the eggs further up in the stomach were intact with their contents. The eggs were soft-shelled, measured 7.3 – 9 mm x 4.4 - 5.9 mm, and weighed 0.1 - 0.15 g. The size and shape of the eggs, as well as the abundance of *P. walbergii* in the area, suggest that the eggs belong to *P. walbergii*. It appears likely that the snake gorged itself in a communal *P. walbergii* nest. Communal nesting in *P. walbergii* has been reported by Alexander & Marais (2007). The specimen is now housed at Port Elizabeth Museum (PEM R16745). This is the first report of *Atractaspis bibronii* feeding on reptile eggs.

Acknowledgements

My thanks go to Paul Moler who read through and commented on the note.

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COLUBRIDAE

***Natriciteres olivacea* Peters, 1854**
Olive Marsh Snake

MELANISM

On 16 January 2010, several specimens of *Natriciteres olivacea* were collected in or near a pond at the village of Kyolo (near Lake Kabamba), Katanga Province, Democratic Republic of the Congo (S 08°01.203', E 27°06.987', 583 masl). Two of these specimens (UTEP [University of Texas at El Paso Natural History Collection] 20306, male, SVL 288 mm and UTEP 20307, female, SVL 398 mm) were distinctive in having a completely melanistic, dark black dorsal and ventral coloration. Identification was confirmed by size, provenance (de Witte 1953), pholidosis and a ca. 530 bp fragment of the mitochondrial 16S gene amplified with standard primers (Palumbi et al. 1991).

Although melanism is known in other natricine snakes (e.g., Worsnip 1978, Arnold & Woodhead 2007), we are not aware of records of melanistic specimens for this species. Other *N. olivacea* specimens collected from this locality are consistent with the coloration description from Broadley (1966), who noted that this species has a ground color of chestnut, olive, grey or blue-black, with a vertebral band (5 scales wide) that may be darker than the ground color or a shade of maroon, a series of small white spots bordering this band, yellow supralabials with black sutures, a white chin and throat, and yellow ventrals bordered with olive, grey, red, mauve or pale blue. Schmidt (1923) in describing snakes from forests of the Congo Basin noted that some individuals have a uniform bluish black dorsum that extends to the lateral ends of the ventrals, but the middle of the ventrals were "light" and the supralabials were white; this description is consistent with "dull coloured" examples described by Pitman (1974), except that the chin and throat of his animals were white. Although Laurent (1956) did not give a complete description of the color pattern in this species, he noted that a juvenile from the rainforest region of Kitutu (DR Congo) had "nevertheless a black venter." Other treatises on the snakes of sub-Saharan Africa provided small variations from the descriptions above (e.g., Loveridge 1958, Isemonger 1983, Branch 1998, Chippaux 1999, Spawls et al. 2002, Broadley et al. 2003), but none described melanistic individuals.

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LAMPROPHIIDAE (Psammophiinae)

***Psammophis notostictus* Peters, 1867**
Karoo Sand Snake

DIET

On 9 April 2006 an adult *Psammophis notostictus* was collected on the farm Daberas Deel (8), about 30 km west of Augrabies Falls, Kenhardt district, Northern Cape Province, South Africa (28º32'15"S, 19º58'30"E; 2819DB) by M. Burger, G. Kriel, M. Lots, A Rebelo and T. Rebelo during a Southern African Reptile Conservation Assess-

ment field trip (no. 11). Habitat in this area is illustrated on the following website: www.sarca.adu.org.za/survey11.php. The snake was deposited in the collection of the Ditsong National Museum of Natural History (formerly Transvaal Museum), Pretoria: TM 85809 (Field number MB 21572). It measured 495 mm SVL and had a truncated tail of 61 mm. Distinguishing characters: 17 midbody scale rows; 8 supralabials on either side of head, 4th and 5th entering orbit; 4 infralabials on either side, in contact with anterior chin shields; 2 preoculars on either side; anal shield entire.

The snake had a swollen belly, indicating a recent meal, and it was therefore dissected and the stomach contents examined. The latter included an adult *Trachylepis sulcata sulcata*, swallowed head-first. The head of the skink had been largely digested, but the colour pattern was diagnostic: back bronze with scattered black scales (similar to specimen shown in plate 54 in Branch 1998), sides of limbs mostly black, belly white-cream with scattered black speckling; and most dorsal scales quinquecarinate. The stomach also contained a 30 mm-long section of tail, referable to *Cordylus polyzonus*. The tail segment consisted of one large and one small whorl of keeled scales, typical of this species, which is also the only *Cordylus* known from the region. Both *C. polyzonus* and *T. s. sulcata* were collected from the same locality during SARCA field trip 11 (see online report). Both of these are rupicolous lizards, suggesting that the snake had been hunting in rocky terrain.

The diet of *P. notostictus* consists primarily of lizards (lacertids, scincids, gekkonids, agamids, cordylids), but mice and other small mammals are occasionally eaten (Mertens 1955; De Waal 1978; Broadley 1990; Branch 1994; Branch & Bauer 1995; Shine et al. 2006). Broadley (1990) and Shine et al. (2006) are the only authors who recorded small mammals (and lizards) in the diet. De Waal (1978) also recorded a grasshopper from the stomach of a snake collected in the Free State. Published records of lizard species in the diet of *P. notostictus* include: *Trachylepis acutilabris*, *Meroles suborbitalis* (Mertens 1955), *Pachydactylus capensis*, *P. mariquensis mariquensis*, *Cordylus polyzonus* (juvenile) (De Waal 1978), *Pedioplanis lineoocellata*, *Pachydactylus* cf. *punctatus* (Branch 1994) and *Chamaesaura anguina* (Branch & Bauer 1995). It is worth noting that in their review of dietary records for *Psammophis*, Shine *et al.* (2006) overlooked De Waal (1978) and Branch (1994), which provide the first records of gekkonids (*Pachydactylus*) and cordylids (*Cordylus*) in the diet of *P. notostictus.* This note documents the first record of *T. sulcata* and only the second record of *Cordylus* as prey of this snake. Shine et al. (2006) recorded lacertids in the alimentary canals of nine specimens of *P. notostictus*, while four specimens had eaten scincids, two contained small mammals and one contained an agamid. Although this suggests a preference for lacertids, the records mentioned above indicate that scincids are also an important part of the diet, while lizards of other species are taken opportunistically.

Acknowledgements

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COLUBRIDAE

***Philothamnus hoplogaster* Günther, 1863**
South-eastern Green Snake

MALE COMBAT

Male combat has been described in a variety of southern African snakes, including the Gaboon Adder (*Bitis gabonica*), Puff Adder (*Bitis arietans*), Berg Adder (*Bitis atropos*), Horned Adder (*Bitis caudalis*), Southern Adder (*Bitis armata*), Lowland Swamp Viper (*Proatheris superciliaris*), Rhombic Night Adder (*Causus rhombeatus*), Snouted Night Adder (*Causus defilippii*), Black Mamba (*Dendroaspis polylepis*), Green Mamba (*Dendroaspis angusticeps*), Forest Cobra (*Naja melanoleuca*), Boomslang (*Dispholidus typus*), Southern Twig Snake (*Thelotornis capensis*) and Mole Snake (*Pseudaspis cana*) (Shine 1978, Broadley 1983, Spawls & Branch 1995, Branch 1998, Spawls et al. 2002, Marais 2004, Phelps 2010). In most instances combat consists largely of a wrestling match, during which the males try to wrestle each other until one of the males move off. During these wrestling matches snakes will crawl over each other and press their opponent's body down, but at times the males also twist around one another. Male Mole Snakes (*Pseudaspis cana*) often bite one another, and deep scars are often visible along the body, at times even exposing the ribs. It appears that these scars heal rapidly (J. Marais *Pers. Obs*.). Southern Adders (*Bitis armata*) are known to bite one another during combat (Phelps 2010), as are captive Berg Adders (*Bitis atropos*) (M. Jaensch *Pers. Comm*.).

On 27 October 2010 male combat was observed between two South-eastern Green Snakes (*Philothamnus hoplogaster*) on Kapinga Island, situated in the Busanga Plains of Kafue National Park, Kafue, Zambia. The two snakes had their posterior halves very tightly twisted (Fig. 1). The observation lasted a few minutes, after which the snakes untangled and quickly disappeared into the leaf litter. To our knowledge, this observation represents the first report of male combat in the genus *Philothamnus*.

Fig. 1: Two male *Philothamnus hoplogaster* engaged in combat on Kapinga Island, Kafue National Park, Zambia. Photo by Niel Midlane.

Acknowledgements

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ELAPIDAE

***Dendroaspis angusticeps* Smith, 1849**
Green Mamba

MALE COMBAT

Male combat in the Black Mamba (*Dendroaspis polylepis*) is well-documented and photographs of males in combat often appear in the popular literature. Combat in the Green Mamba (*Dendroaspis angusticeps*) is mentioned in the literature but without specific details (Branch 1998, Marais 2004, Alexander & Marais 2007), and has apparently been rarely observed.

On 14 June 2010 at 10:20, two male Green Mambas (*D. angusticeps*) were observed in combat on a sand track next to Lake Sibiya in northern KwaZulu-Natal (Fig. 1). The track crossed through thick coastal forest. The bodies of the two snakes were loosely intertwined and with each male trying to push down the neck of its opponent. The individuals did not appear to show overt aggression to one another, and the combat appeared to be entirely ritualistic. As the observers drove closer, after watching the snakes for approximately 5 minutes, the snakes moved off into the bush.

Fig. 1: Two male *Dendroaspis angusticeps* engaged in combat near Lake Sibaya, KwaZulu-Natal, South Africa. Photo by John McGahey.

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VIPERIDAE

***Bitis peringueyi* Boulenger, 1888**
Peringuey's Adder

MORTALITY

On July 11, 2009, Mr. Tommy Collard of Living Desert Tours, Swakopmund, noticed a *Bitis perinqueyi* lying half-exposed on the surface of a dune 5 km south of Swakopmund (2214DA) with only its tail twitching. He excavated the snake and found an antlion (Fig. 1) clamped onto its neck approximately a quarter of the way down its length. Within 5 minutes of removing the antlion, the snake died. The surrounding sand where the snake was excavated showed evidence of intense thrashing by the snake. Dr. Mervyn Mansell identified the antlion (JV 9216) as *Palpares immensus* (Neuroptera: Myrmeleontidae) and added that the larva of this species is one of the largest in southern Africa and is fairly common in Namibia and in Northern Cape Province of South Africa. *Palpares immensus* do not make pitfalls but are rather free-ranging ambushing predators (M. Mansell, *Pers. Comm.*) The snake (SMR 10650/JV 8686) measured 250 +15 mm in length and had a mass of 14.2 g. The antlion measured 33.4 mm in length and it had a mass of 1.5 g.

Antlions inflict a venomous bite. In humans, a stinging effect lasting for a few minutes (Swanson 2009) has been reported but bites can also be more serious (Hawkeswood 2006) with pain lasting 2 hours and intense enough to require medical intervention. Antlion venom is not proteineous (Mebs 2002) but rather it is similar to that secreted by ground beetles, blister beetles, darkling beetles and rove beetles, ladybirds and fireflies, and function as vesicants, contact irritants, or bitter-tasting feeding deterrents (Weatherston & Percy 1978, Laurent et al. 2005). These chemicals include acids, quinones, esters, aldehydes, alkaloids, amines, steroids, terpenoids, and often occur in complex mixtures (Berkov et al. 2008). Antlions jaws are formidable and complex structures (Turner 1915), with the upper and lower fused, and present as recurved sickle-like "fangs" (Fig .1). A venom injecting tube lies within the line of fusion of each jaw and it is via these that the body fluids of the prey are also sucked up. Each mandible also has 4 large teeth but these probably play no part in venom injection and their function is to assist to restrain prey. In the specimen of this note the length of the jaws are 7.0 mm in length.

Fig. 1: *Palpares immensus* (Nueroptera: Myrmeleontidae) measuring 33.4 mm in length.

Considering the respective sizes and weights of the antlion and the adder, it seems unlikely that the snake would be a regularly selected prey item. It is likely that the antlion had bitten the snake accidently and could not release its grip (M. Mansell, *Pers. Comm.*). The snake showed a circular torn out area of skin 2 mm in diameter approximately eight ventral scales ahead of the heart. This injury was likely caused by the large mandibular teeth. The snake also showed localized internal haemorrhagic discolouration approximtely 15 mm down the left side of the body at the same site suggesting a systemic effect of the venom. The events in this account occurred close to a dollar bush (*Zygophyllum stapffii*) and the assumption is that the initial contact between insect and snake took place under the bush and was probably accidental.

The snake has been deposited in collection of the National Museum of Namibia, Windhoek, and the antlion in the entymological collection of the Department of Zoology at the University of Pretoria.

Acknowledgments

Mr. Tommy Collard brought me the antlion and snake for examination. Dr. Les Minter kindly put me in touch with Dr. Mervyn W. Mansell, Agricultural Scientist USDA-APHIS, Pretoria, who identified the antlion and who also provided other interesting information on interactions between antlion and reptiles. Mr. Norman Larsen kindly sent me a reprint of Berkov et al. (2008).

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LACERTIDAE

***Latastia longicaudata* Reuss, 1834**
Southern Long-tailed Lizard

REPRODUCTION

Latastia longicaudata is known from the Sudanese and Ethiopian borders, south through Kenya and north-eastern Tanzania (Spawls et al. 2002). *Latastia longicaudata* produced clutches of 3-4 eggs in late March and April in Kenya (Loveridge 1936). In this note I provide additional information on the reproduction of *L. longicaudata* from Kenya: Samburu District, vicinity Latakwen 1°28'N, 37°3'E, elev 914 m, 24 June-2 July 1971. A sample of 15 *L. longicaudata*, one male, snout-vent length (SVL) = 83 mm, three females, mean SVL = 82.0 mm ± 1.0 SD, range: 81-83 mm and 11 subadults, mean SVL = 39.4 mm ± 2.8 SD, range: 36-45 mm was examined from the herpetology collection of the Natural History Museum of Los Angeles County (LACM), Los Angeles, California, USA: (LACM) 65855-65869.

For histological examination, the left testis was removed from the male and the left ovary was removed from females, embedded in paraffin, sectioned at 5µm and stained with Harris haematoxylin followed by eosin counterstain. Histology slides were deposited at LACM.

The one male examined was undergoing spermiogenesis. Lumina of the seminiferous tubules were lined by clusters of sperm or rows of metamorphosing spermatids. One female (82 mm SVL) exhibited early yolk deposition and the second (83 mm SVL) was not undergoing yolk deposition. The third and smallest adult female exam-

ined (SVL = 81 mm) contained a corpus luteum from a previous clutch and concomitant yolk deposition for a subsequent clutch indicating that *L. longicaudata* produces multiple clutches within a single reproductive season. The report of Loveridge (1936) indicates the reproductive season of *L. longicaudata* is of sufficient duration to allow for production of multiple clutches. The remaining eleven *L. longicaudata* contained very small gonads and were considered to be sub-adults.

Acknowledgments

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Xenocalamus bicolor bicolor from Steenbokpan, Limpopo Province, South Africa. Photograph: Bryan Maritz (EOS 50D, 1/125, F10, ISO 400)

GEOGRAPHICAL DISTRIBUTIONS

AMPHIBIA: ANURA

BUFONIDAE

***Bufo dhufarensis* Parker, 1931**
Dhofar Toad

Saudi Arabia, Plateau, head drainage of Shaib al Ajma (Wadi Mutim system), Ibex Reserve (ca. 250km southeast of Riyadh, N 23.48° E 46.49° & app. 1100 m.a.s.l.). Drainage line with temporary water flow after heavy rainfall in May 2010, on Jurassic limestone Plateau. Observed by Torsten Wronski. Verified by Peter Cunningham. 1 specimen – photographed (Fig. 1).

Fig. 1: Bufo dhufarensis from the Ibex reserve, Saudi Arabia. Photo Torsten Wronski

Leviton et al. (1992) show that the range of *Bufo dhufarensis* includes the southern Arabian Peninsula south of N 22° along the west coast, Yemen, coastal Oman and the United Arab Emirates east of N 56°. From central Saudi Arabia they are known from Hayr and Riyadh, but viewed as introduced to these areas (Balletto et al. 1985).

This sighting of *B. dhufarensis* in the Ibex Reserve was made after 77 mm of rain fell in the area of Wadi Mutim, with the average annual rainfall for the Ibex Reserve being 85.4 mm (Robinson 2007). *Bufo dhufarensis* aestivate underground by burrowing into the soil with frantic breeding spells observed throughout the year after unpre-

dictable rainfall events (Balletto et al. 1985, Cunningham & Feulner 2001).

This range extension for *B. dhufarensis* suggests either an indication of geographic spread from the Riyadh area over time (unlikely) or that they occur naturally in the rugged mountainous escarpment running from north of Riyadh in the central Najd area down to the Uruq Bani M'arid area on the south western boundary of the Empty Quarter, but never verified due to under collecting from this generally inaccessible area.

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REPTILIA: SQUAMATA

ELAPIDAE

Naja ashei Wüster & Broadley, 2007
Ashe's Spitting Cobra

Ashe's Spitting Cobra (*Naja ashei*) is Africa's largest cobra and was only described in 2007 (Wüster & Broadley 2007). The first and largest specimen was 2.8 meters (9 feet and 2 inches), and caught much earlier in 1960 by James Ashe and C.J.P. Ionides, the famous snake catcher (Wykes 1960). It had killed and swallowed a domestic cat and got injured in the process but survived. It was kept in captivity for three weeks but unfortunately escaped before it could be taken to the Nairobi Snake Park. There remains some confusion as to where it was caught, but Ashe recorded that "I think it was somewhere in Kilifi", about 45km from Watamu, coastal Kenya, where he later built his snake park (Saving Snakes 2007).

The distribution of *Naja ashei* is currently believed to be restricted to eastern and northern Kenya, southern Ethiopia, southern Somalia and eastern Uganda (Wüster &

Broadley 2007), and it is thus surprising that its presence around the relatively well-populated area of Arusha and Mt Meru, Tanzania, has not previously been recorded. Below, we document a number of sightings and voucher material collected by local villagers that confirm the species' presence in Tanzania.

Tanzanian records

The first specimen was collected as it was swallowing a rock monitor (*Varanus albigularis*). It was found in late 2008 in semi-arid scrubland at Ndukusi village (10 km SE of Lolkisale), Kitete District, Arusha Region, Tanzania (S 03° 50', E 36° 30' - about 40km SW of Arusha). It was kept in captivity at the MBT Snake Farm, until its death, and then deposited in the herpetological collection of the Trento Museum of Natural Science in Italy (accession number MTSN7500). The following features of coloration and scalation confirm its identification as *Naja ashei*: It is an adult female (2010 mm TL), completely brown in dorsal coloration, with no dark edges on the labials or ventrals; 24 scale rows around the neck and 21 scale rows at midbody; 61 subcaudals, and 205 ventrals.

A second specimen was collected in the same area in early 2009 and also maintained in captivity until its death a month later. The head was removed and frozen, until photographed six months later (Fig. 1). Tissue was collected for molecular studies and the head discarded.

A third specimen was collected from the Ndukusi region at the beginning of 2010, and is currently still alive in captivity at the MBT Snake Farm.

A fourth specimen was collected near the village Meranrani on the northern Simanjaro Plains, 30 - 40 km SW of Kilimanjaro airport, near Mbuguni (approximately S 03° 40', E 36° 50' - about 40 km SSE of Arusha). It is more than 2100 mm long, has a uniform brown body and throat region and a cream ventrum and is also being maintained in captivity.

In size, habitus, coloration and scalation the Tanzanian specimens documented above all conform to *Naje ashei*, and confirm Wüster & Broadley's (2007) prediction that the species "probably also occurs in the far north and/or northeast of Tanzania".

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Fig. 1: Lateral and dorsal aspects of the head of the second Tanzanian specimen of *Naja ashei*.

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ELAPIDAE

***Naja melanoleuca* Hallowell, 1857**
Forest Cobra

The Forest Cobra (*Naja melanoleuca*) is known from forested and formerly forested areas, and ranges from Senegal eastwards to western Ethiopia, Kenya and the southern Sahara, southwards to Angola in the west, and east to the Mozambique floodplain, entering eastern Zimbabwe and Zululand, South Africa (Broadley 1983, Branch 1998, Spawls et al. 2002, Dobiey & Vogel 2007). In South Africa the species occurs from the Mozambique border southwards to Blythdale Beach near Stanger, KwaZulu-Natal. There is also an old, probably incorrect record from Durban, KwaZulu-Natal (Broadley 1983, Branch 1998).

On 7 December 2007an adult specimen measuring approximately 1.7 m in total length was seen searching for food in burrows and in the branches of bushes (*Capparis tomentosa*) on the banks of the Luvuvhu River in Pafuri Camp, northern Kruger National Park, Limpopo Province, South Africa (S 22° 25' 12", E 31° 13' 45"), and approximately 211 masl. It was an overcast day with fine drizzle. The individual was brown with speckles and a distinctive black tail, typical of specimens from northern KwaZulu-Natal. The specimen was not collected as it was observed within a national park but was photographed (Fig. 1).

Naja melanoleuca has been observed on two further occasions at the above locality, once on the 3 of March 2008, feeding on an anuran species, and again on 9 April 2008. These records represent the first for *Naja melanoleuca* in the Kruger National Park, and the first records for Limpopo Province, South Africa.

Fig. 1: Head photograph of *Naja melanoleuca* from Pafuri Camp, Kruger National Park, Limpopo Province, South Africa. Photograph: Walter Jubber.

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SCINCIDAE

***Trachylepis striata* Peters,1844**
Striped skink

On 2 March 2010 I observed and photographed an adult *Trachylepis striata* (identification verified by J. Marais and B. Maritz) basking on a wall of a private property between Port Nolloth and McDougall's Bay, Northern Cape Province, South Africa (29° 16' 28 S, 16° 52' 39 E). This locality falls well outside of the known distribution of the species in South Africa (Branch 1998) where it is limited to the north-eastern mesic parts of the country. This record thus is likely to represent a human-facilitated translocation. The translocation may have taken place in various manners, however growth in the import and export of goods between provinces or countries is known to be a major cause of animal translocations globally, especially for anthropophylic species.

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VARANIDAE

***Varanus niloticus* Linnaeus, 1766**
Water Monitor

South Africa, Free State, Hoopstad district, Farm: Roodedraai 92 (S 27º45'42.4", E 25º21'31.2"; 2725CD; 1210 masl). On 18 March 2010, while walking along the tree-lined southern banks of the Vaal River at this locality, the author observed several adult

and subadult *Varanus niloticus*. Specimens were seen in the water near the edge, on the banks of the river, and resting on the branches of trees in or slightly above the water's surface. Once disturbed the monitors were quick to escape into the water. The species is easily recognized by its large size (largest specimen observed had a total length of about 1.2 m), relatively elongate snout (compared to *V. a. albigularis*) and aquatic habits. Although this species is widespread and common in southern Africa, especially in the east (Branch 1998), it is somewhat surprising to note that in a survey of the herpetofauna of the Free State, De Waal (1978) did not record it anywhere near the Vaal River, while in his survey of the former Transvaal province, Jacobsen (1989) recorded the species at only one locality (2726AB, apparently a sight record) on, or in the immediate vicinity of, the northern banks of this major river. The only record of the Water Monitor at or near the Vaal River that was plotted by Visser (1984) for the whole of South Africa is near Riverton (2824BD) in the Northern Cape. Bates (1996) later recorded the species from the Vet River (at Hoopstad; 2725DD) which empties into the Bloemhof Dam, situated on the Vaal River. The provisional distribution map of the Southern African Reptile Conservation Assessment (SARCA; www.adu.org.za) contains only two additional *V. niloticus* records associated with this river, one near Vanderbijlpark (2627DA) in Gauteng and one in the Warrenton area (2824BB) of the Northern Cape. Although these large lizards have probably been sighted along the Vaal River by thousands of people (including fishermen and tourists) over the years, and are probably common along large sections of the river where some cover is provided (as suggested by Bates 1992), the new locality appears to be the first Free State record of *V. niloticus* actually occurring along this river. The new record is situated 54 km WNW of the Hoopstad locality, which is the nearest other locality for the species.

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Submitted by:

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INSTRUCTIONS TO AUTHORS

Contributions submitted in an incorrect style (see guide-lines below) will be returned to the authors.

ARTICLES

African Herp News publishes longer contributions of general interest that would not be presented as either Natural History Notes or Geographical Distributions.

A standard format is to be used, as follows: **TITLE** (capitals, bold, centred); **AUTHOR (S)**[1,2] (bold, centred); Author's address(es) (use superscripts with authors' names and addresses if more than one author); **HEADINGS** (bold, centred) and **Subheadings** (bold, aligned left) as required; **REFERENCES**, following the formats given below:

BRANCH, W.R. 1998. *Field Guide to the Snakes and Other Reptiles of Southern Africa*. Third edition. Struik, Cape Town.

BROADLEY, D.G. 1994. The genus *Scelotes* Fitzinger (Reptilia: Scincidae) in Mozambique, Swaziland and Natal, South Africa. *Ann. Natal Mus*. **35**: 237-259.

COOK, C.L., & MINTER, L.R. 2004. *Pyxicephalus adspersus* Peters, 1854. pp. 303-305, *in* Minter, L.R., Burger, M., Harrison, J.A., Braack, H.H., Bishop, P.J., and Kloepfer, D. (eds.), *Atlas and Red Data Book of the Frogs of South Africa, Lesotho and Swaziland*. SI/MAB Series #9. Smithsonian Institution, Washington, DC.

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.

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