African Herp News

Newsletter of the Herpetological Association of Africa

Number 58 **DECEMBER 2012**

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

FOUNDED 1965

The HAA is dedicated to the study and conservation of African reptiles and amphibians. Membership is open to anyone with an interest in the African herpetofauna. Members receive the Association's journal, *African Journal of Herpetology* (which publishes review papers, research articles, and short communications – subject to peer review) and *African Herp News*, the Newsletter (which includes short communications, natural history notes, 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: *Nucras taeniolata* from Groendal Wilderness Area, Eastern Cape Province, South Africa. Photograph by: Werner Conradie. Canon EOS 450D (1/160, F32, ISO 100).

that our knowledge of arid Africa is limited and that savannah eco-regions and dry woodlands seem to be the most unexplored parts of the continent.

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Weldon, Ché (North-West University); Botha, Vidette; Taylor, Jonathan (North-West University)

The use of the South African Diatom Index in conservation management of Hewitt's Ghost frog

The critically endangered *Heleophryne hewitti* (Hewitt's Ghost Frog) is only found in four streams of the Elandsberg Mountains, Eastern Cape. The species entire habitat is restricted to the bounds of the Mountain to Ocean (MTO) forestry area. This study focuses on three areas within this habitat, each differing in shade coverage due to the density of pine trees in the riparian zone. Diatoms have value as water quality indicators, which qualify them for use in conservation management. In addition diatoms comprise a large part of tadpole diet, thus providing information about the ecology of amphibians. The aim of the project was to determine the impact of water quality and shading on the distribution of diatoms. A survey for adult *H. hewitti* frogs was conducted during breeding and non-breeding seasons, in order to provide forestry with the information needed to make informed decisions regarding the future wellbeing of *H. hewitti*. Initial results indicate that samples from riverine substrate and tadpole gut content samples differ in terms of diatom species composition, which could be attributed to tadpole grazing strategy. Cell deformities in diatom species suggest the possible presence of environmental toxins.

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White, Lauren (Erell Institute)

Home Range and Spacing Patterns of the Wedge Snouted lizard, *Meroles cuneirostris*

Space use patterns can help interpret social structure, and can also indicate habitat preferences. *Meroles cuneirostris*, a diurnal lacertid endemic to the west-central coast of Namibia, occupies an ecotone consisting of sparsely vegetated sand dunes and an inter-dune gravel plain. The habitat varies in both prey availability, with termites common in the gravel plain but rare in the dunes, as well as in predator avoidance options; lizards can easily bury themselves in sand or escape into bushes in the dunes but the coarse, packed sand and dearth of large shrubs precludes these strategies in the gravel plain. Space use may reflect the relative advantages offered by the two habitat types as well as social structure. Over a 4 week period during December 2011 – January 2012, resighting locations were recorded for 95 marked adults on a study site approximately 30 m x 500 m following the base of a large sand dune in the Namib-Naukluft National Park,

Namibia. Recorded locations were compiled to estimate home ranges and core areas using the Minimum Convex Polygon method. Home range estimates were calculated for 89 animals. The mean ± SE home range size was 0.1887 ± 0.0417 ha for females and 0.1896 ± 0.0278 ha for males. Home range size did not differ significantly between the sexes. Results of regression analysis also showed no significant relationship between body size and home range size. Individuals in this population exhibit a high level of home range overlap (mean overlap: males = 973.4 ± 54.5% and females = 929.6 ± 54.5%), and with no relation to body size. The high levels of home range overlap we found suggest that *M. cuneirostris* is not territorial. For each resighting, habitat was recorded; the proportion of sightings and home range relative to each habitat was determined. Patterns of home range/core area size, overlap, and habitat characteristics will be addressed by further analyses within and between the sexes.

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Whiting, Martin (Macquarie University); Holland, Brenden (University of Hawai'i); Keogh, Scott (The Australian National University); Stuart-Fox, Devi (University of Melbourne)

Evolution of a conspicuous dynamic visual signal in an introduced chameleon

Rapid adaptive evolution frequently follows a significant change to an organism‘s environment, such as during colonization of a novel habitat. Vertebrates, including Caribbean *Anolis* lizards and Galapagos finches, have demonstrated a remarkable capacity for morphological change of functional traits (limb length, beak size) on ecological time scales. Traits that are sexually selected can be similarly affected, although well-documented examples from wild populations are rare (a notable exception is Trinidadian guppies). The Jackson‘s chameleon (Chamaeleo x. jacksonii) from East Africa was inadvertently introduced to the Hawaiian island of Oahu in 1972. In its native range, Jackson‘s chameleons are preyed upon by a wide range of predators, including snakes and birds, which are thought to shape the dynamics of color change in chameleons. We took advantage of the Hawaiian introduction, an environment with only a few potential predators and therefore, very low predation pressure, to test for character release of conspicuous social color signals. To test this hypothesis, we measured color change in response to multiple social and predator stimuli in wild chameleons in both Hawai‘i and Kenya. We used visual modelling of colour signals, together with irradiance and vegetation background color, to estimate signal conspicuousness to both the chameleon and predator (bird, snake) visual systems. The Hawai‘i and Kenya backgrounds were the same color, but the major difference was in brightness: the Hawai‘i background was darker. As a result, chameleons from both Kenya and Hawai‘i were brighter against the Hawai‘i background. However, Hawai‘i males were more conspicuous (courtship, display) against their own background for some body regions