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In Situ Copulation and Intersexual Den Sharing in *Varanus albigularis albigularis* (Daudin, 1802), Eastern Cape, South Africa

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Abstract – An observation of in situ copulation and courtship in *Varanus albigularis albigularis* from the coastal regions of the Eastern Cape, South Africa is described. The unusual behavior of the two individuals sharing a den post-copulation is also described.

Introduction

The white-throated monitor (*Varanus albigularis albigularis*) is a large, diurnal and terrestrial lizard that is widely distributed predominantly throughout savanna, woodland and arid habitats of southern and east Africa, and absent from the far southwestern region of the continent (Alexander, 2014; Spawls *et al*., 2018). Copulation in *V. a. albigularis* occurs from late August to mid-November, with egg-laying taking place around 2-3 weeks after mating (Phillips, 1995). Despite the species' abundance and broad distribution, copulation is rarely observed in the wild due to its shy nature (Branch, 1998). Reported herein is an observation of copulation in *V. a. albigularis* and intersexual den sharing which took place on 1 September 2018 northeast of Port Elizabeth (33°38′55″ S; 25°35′29″ E), Eastern Cape, South Africa.

Observations

On 1 September 2018, two adult *V. a. albigularis* were observed locked in copulation within Coega Bontveld thicket, the dominant vegetation type for the region (Musina & Rutherford, 2006). The individuals were first noticed at 1351 h and observed until 1415 h. The environmental conditions during the observation consisted of a constant ambient temperature of 21 °C, low wind speed and high cloud cover; due to a lack of equipment on hand, no additional climate data were collected. This area receives bimodal rainfall with maximum rainfall occurring in March and October.

Upon recognizing the mating pair, the individuals were observed and photographed from a further distance to minimize disturbance. It was noted that the pair became aware of the observer's presence and initially ceased copulation; after five minutes and with the observer at a distance of ca. 20 m away, courtship and then copulation resumed for an additional 14 minutes. Copulation consisted of slow lateral movements of the upper body and head of the male together with a sideways motion of the tail, while the female laid motionless (Fig. 1). At 1410 h, the female (ca. 70 cm in snout-vent length [SVL]) then removed herself from beneath the smaller male (ca. 50 cm SVL) and retreated towards a north-facing burrow within a calcareous ridge roughly 6 m from the mating location (Figs. 2 & 3). Shortly

Fig. 1. *Varanus albigularis albigularis* in courtship; Male (top) and female (bottom) .

Fig. 2. Female *V. a. albigularis* moving after copulation towards den site.

Fig. 3. Den site which both male and female entered into after copulation.

thereafter, the male followed in the same direction and subsequently entered into the same burrow occupied by the female, which was when observations ceased.

While it is known that male *V. a. albigularis* will usually roam over a large range to mate with multiple females (Phillips, 1995), observations of den sharing between mates has not been reported. It is plausible that the den sharing behavior by both sexes was due to disturbance from the observer, where the behavior observed may not be typical of the species.

References

Alexander, G.J. 2014. *Varanus albigularis albigularis* (Daudin, 1802). Pp. 283. *In*: Bates, M.F., W.R. Branch, A.M. Bauer, M. Burger, J. Marais, G.J. Alexander & M.S. De Villers (eds.), Atlas and Red List of the Reptiles of South Africa, Lesotho and Swaziland. Suricata 1. South African National Biodiversity Institute, Pretoria.

Branch, W.R. 1998. Field Guide to the Snakes and other Reptiles of Southern Africa. Third Edition. Struik, Cape Town. 376 pp.

Mucina, L. & M.C. Rutherford (eds.). 2006. The vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19. South African National Biodiversity Institute, Pretoria. 807 pp.

Phillips, J.A. 1995. Movement Patterns and Density of *Varanus albigularis*. Journal of Herpetology. 29: 407–416.

Spawls, S., K. Howell, H. Hinkel & M. Mengen. 2018. Field Guide to East African Reptiles. Bloomsbury, London. 311 pp.

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