

Reproduction in the Seychelles tiger chameleon *Calumma tigris*

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The Seychelles tiger chameleon (*Calumma tigris* (Kuhl, 1820)) is recorded from the islands of Mahe, Silhouette and Praslin. A series of specimens reputed to have originated in Zanzibar (British Museum (Natural History) R76.10.10.1-5) were presented by Captain J.E. Parish and are part of a set of specimens shipped from Zanzibar but without accurate provenance data.

Although there are notes on its distribution in a variety of publications there are no detailed accounts of the biology the species beyond a record of a gravid female (Honegger 1966), a female apparently both laying eggs and retaining eggs with well developed embryos (Bourgat & Domergue 1971) and a species of protist gut parasite (Modry *et al.*, 1997). These data and a clutch of eggs in the British Museum (BM(NH) R1905.4.25.6-10, collected on Mahe by M.L. Tonnet in 1905) were summarised by Cheke (1984) who cited a clutch size of 3-4 eggs. There is a more recent record of 4-6 eggs being laid in a 2-3cm deep nest in October, the eggs were reported to measure 6x13mm (Grimm 2000). The mode of reproduction in this species is of some significance as the taxonomic relationships of the different chameleon species are much disputed and reproduction has been used as a character. Hillenius (1959) considered the Seychelles species to relate to the African ovoviparous species *Chamaeleo pumilus* and *C. bitaeniatus* but it is currently placed in the Madagascan genus *Calumma* (Klaver & Bohme 1986).

Recent observations provide further detail on reproduction in Seychelles chameleons. In 1996 a chameleon from Praslin was reported to have laid eggs before dying (S. Le Maitre & P. Hitchins *pers. comm.*). In November 2000, 4 neonate chameleons were found emerging from the soil in a pot plant from La Misere, Mahe. Each hatchling was reported to measure 60mm in total length. The nest chamber was subsequently excavated, it measured 2cm diameter, 10cm deep and was flask shaped. 12 membranous eggs (all hatched) were found (Fig. 1), each egg measured approximately 15x10mm.

In December 2000 we found a juvenile chameleon at Jardin Marron, Silhouette. This measured 29mm snout-vent length and 70mm total length.

From these observations it would appear that the Seychelles chameleon is normally oviparous, with a clutch size of 3-12 eggs. Reproduction occurs in the wet season. The breeding season may be more extended and ovoviviparity may also occur, although there is no definite evidence for this at present.

References

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Fig. 1. Recently hatched clutch of *Calumna tigris* eggs.

