

**OVIPARITY IN TWO SOUTH
AFRICAN SKINKS OF THE GENUS
MABUYA, WITH NOTES ON
HATCHING**

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In his introduction to the genus *Mabuya*, Fitz-Simons (1943) states that all species are viviparous. As this work remains the standard reference to South African lizards, it is of interest to record that at least two species of the fourteen listed by him are oviparous.

On 4 January 1974, B. G. Visser found six ovoid eggs in a pile of disintegrating bricks at Beach Estate, Hout Bay. The pliable, leathery eggs were placed on a layer of moistened sand in a plastic container and kept at room temperature. On 9 January a *Mabuya homacephala homacephala* (Wiegmann) emerged (Fig. 1). A further egg hatched later on the same date and by 11 January all the remaining eggs had hatched. The inmates of the entire clutch proved to be the above species. Three of the hatchlings were measured and in each case proved to be 28,5 + 41,5 mm (head-body + tail length).

The same collector brought me a further hatchling of this species from the same general area on 15 January. Also, on 28 December 1974, a gravid *M. h. homacephala* from Plumstead was given to me by B. Dyer. This specimen contained six advanced eggs of 13 × 8; 13,5 × 8,5; 14 × 9; 14,5 × 9 (2); and 15 × 9 mm, which were all judged to be ready for laying. The eggs contained embryos in Stage 32 (Dufaure & Hubert 1961). Ovarian eggs, four of 4 mm and one of 3 mm, were also present in this specimen which measured 81 + 121 mm.

On 14 January 1974, I received a *Mabuya*

quinquetaeniata margaritifera (Peters) from the Ubombo Mountains, Zululand, of 105 + 120 (the last 25 mm regenerated). This specimen was found to contain eight eggs, four in each oviduct. These eggs averaged 15,6 × 9,6 mm. Ovarian eggs of 1,5–1 mm in a cluster of 14 and some much smaller eggs were also present. As the oviducal eggs were covered in a thick leathery membrane and aroused suspicions of oviparity, they were dissected and found each to contain an embryo in Stage 32 (Dufaure & Hubert 1961). On 2 January 1975, G. Setaro found seven eggs with individual dimensions of 19 × 14,5; 19,5 × 14; 20,5 × 14; 20,5 × 13; and 21 × 15 mm under a stone on a hillside at Joseni, Zululand, which he sent to me via H. Nuss. The collectors were of opinion that the eggs were those of an *Agama* species but my dissection of one egg disclosed a *Mabuya quinquetaeniata margaritifera* embryo in Stage 37/38. The remaining eggs were incubated in similar fashion to the *M. h. homacephala* eggs but additionally received bottom heat by a 40 W bulb through a cage top of 6 mm plywood. The first egg hatched on 20 January between 1830 and 2100 h (Fig. 2). The second egg hatched on 22 January between 0030 and 0200 h, the third on the same date at 1210 h and a further three between 1615 and 1700 h after the eggs had been moistened at 1100 h on the same date. The last egg hatched between 1130 and 1230 h on 23 January. The hatchlings measured 30 + 45; 31 + 47; 31 + 47; 31 + 45; and 33 + 47 mm, the longest being the last to hatch. All the hatchlings proved extremely active on leaving the egg and immediately sought out cracks and crevices to squeeze between.

In his field notes to *M. q. margaritifera*, Fitz-Simons (1943) recorded that "The young, usually 6–8 in number, are born in late summer", an observation which Pienaar (1966) repeats *verbatim*. These two accounts led Fitch (1970) to suggest that a shift to viviparity may be indicated for this species in the southern part of its range, if they were accepted to be correct. This author's suggestion for this shift stems from the Schmidt

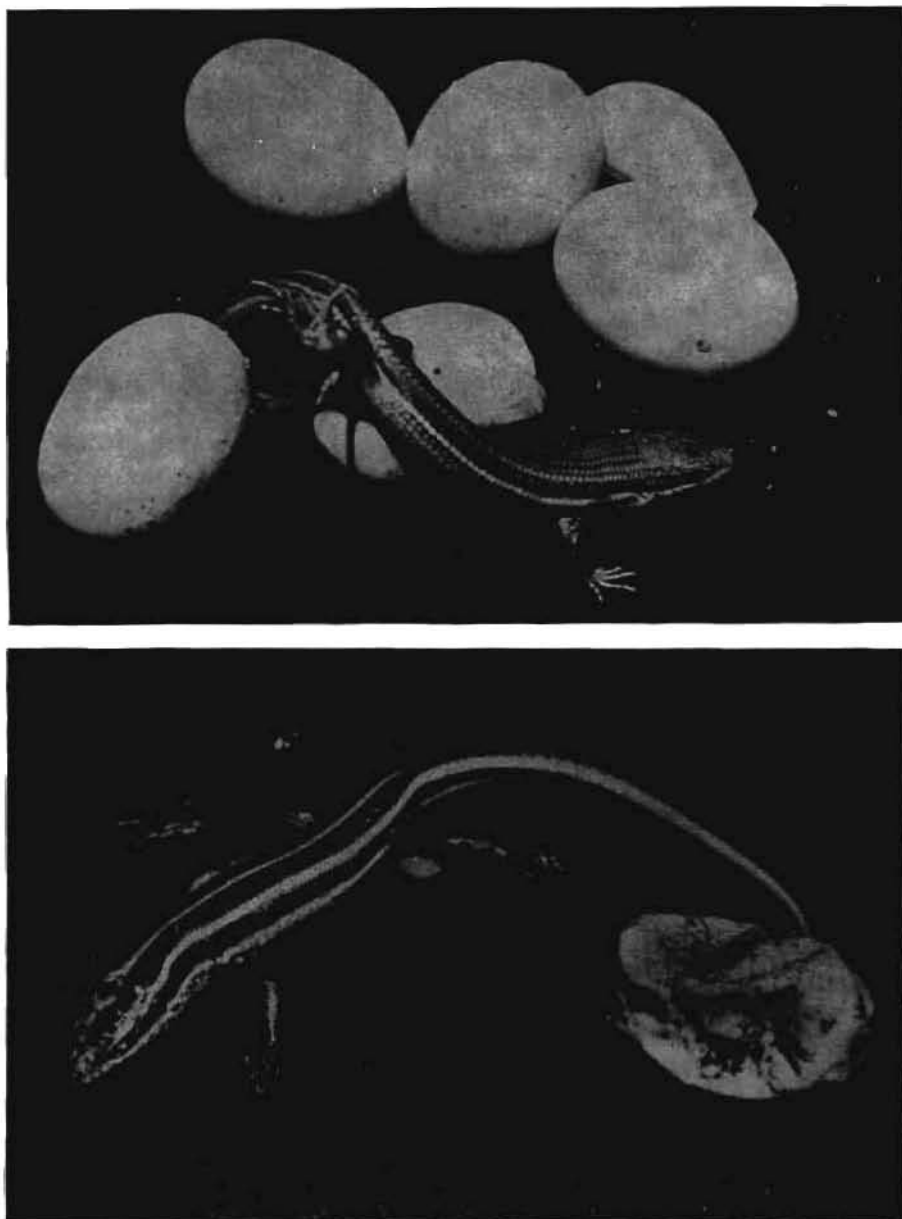


FIGURE 1

Above: *Mabuya homacephala homacephala* hatchling and the egg clutch.
Below: *Mabuya quinquetaeniata margaritifera* leaves the egg.

& Inger (1957) observation that *M. q. margaritifer* lays 10 eggs under stones or logs and that the species may lay communally. The reference does not cite a country for the Schmidt & Inger observations but as these workers were active in Zaire for some time; it is safe to assume that Fitch had this territory in mind. However, in the light of the current observations from Zululand it would seem that the species is in fact oviparous throughout its range.

Finally, G. Setaro and I. Knezovich inform me that another *Mabuya* at Durban, as yet without precise identity, is oviparous. On geographical and other considerations this species will probably prove to be either *M. varia* (Peters) or *M. striata* (Peters).

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TYTO ALBA PREY IN SOUTH WEST AFRICA AND THE NORTHERN CAPE

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Ten collections of barn owl (*Tyto alba*) pellets from four localities in South West Africa and four collections from three localities in the northern Cape have been analyzed. Localities of the barn owl roosts and pellet collection sites are listed below.

South West Africa

1. 25 km east of Windhoek. 22°32'S/17°16'E. Roost in a cave in mica schist. 30 April 1972.
2. Valencia Ranch, Friedenthal district. 23°10'S/16°25'E. Roost in a cave in mica schist. 23 May 1973.
3. Gamsberg. 23°15'S/16°24'E. Roost in a deserted house in a river valley. Surrounding habitat mainly steep hillsides with *Acacia erubescens*. 18 April 1973.

4. Gochas. 24°30'S/18°32'E. This is the same locality as Vernon's (1972) locality 13. Seven collections made between 16 July 1972 and 4 August 1973.

Northern Cape

5. Heuningvlei. 26°17'S/23°14'E. Roost in a cave in banded ironstone. 22 March 1973.
6. Kingston, Kimberley district. 28°43'S/24°12'E. Roost in an old well in mixed *Acacia tortilis*, *A. mellifera* and *Tarchonanthus camphoratus* scrub. 11 July 1972 and 7 April 1973.
7. Marrick, Kimberley district. 28°50'S/24°15'E. Roost in an old well in mature *Acacia tortilis* woodland. 10 July 1972.

Notes on the prey species

Suncus varilla. This small shrew has not been recorded in the Kimberley area although Meester & Lambrechts (1971) give 'north eastern Cape' in their distribution notes on *Suncus varilla orangiae* (Roberts).

The UTR (the only measurement that could be taken due to cranial damage on the pellet specimens) of the Kimberley material averages