

GECKO PREDATION BY SKINK OBSERVED IN TANZANIA

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An arboreal skink *Mabuya striata striata* (the Common Striped Skink) on the trunk of a tree by the waterfront of Tanzania's main port and capital, Dar-es-Salaam, was observed in morning sunshine (08h30LMT) by CFD (14 May 1997) to hunt-down and eat a diurnal Dwarf Gecko *Lygodactylus luteopicturatus luteopicturatus* (the Yellow-Head Dwarf Gecko). The trunk surface was uneven with cracks and crevices, and holes providing refuge for the lizards. The skink sighted the gecko near the base of the tree, and, with tail twitching from side to side, moved down the trunk to give chase. The gecko saw the skink, and promptly moved round and down to the other side of the trunk. The skink continued its way down and around the trunk in the opposite direction, having lost sight of the gecko. However, after searching for a minute or two, it suddenly moved at speed, and emerged on the other side of the trunk with the struggling gecko transversely positioned in its jaws. The skink came briefly to a halt, and then ran up the tree and disappeared from view, presumably to ingest the gecko undisturbed, and out of danger itself from predation.

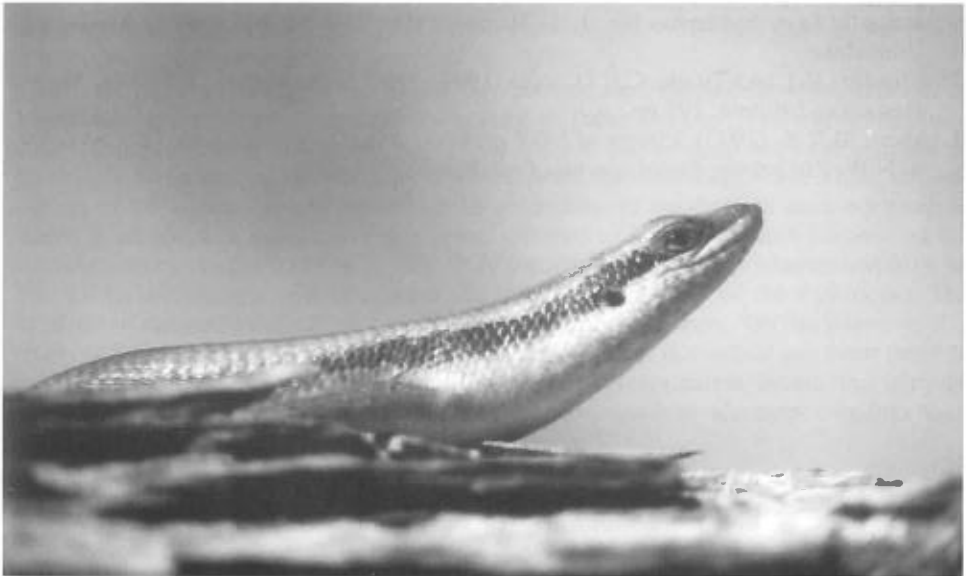


Plate 1. *Mabuya striata wahlbergii* – Whalberg's Striped Skink (snout-vent length 7 cm) basking in morning sunshine (10h00) on trunk of mopane tree, near Siabuwa (Matabeleland North), Zimbabwe (21 May 1989)
Photo: MRKL

In N.W. Zimbabwe, Lambert (1993) observed that sighting rates (no. man-h⁻¹) and percent frequency of the arboreal skink *Mabuya striata wahlbergii* (Wahlberg's Striped Skink) in mopane woodland declined significantly with increasing numbers of annual DDT treatments against Tsetse Flies – Tsetse resting sites on trunks were ground-sprayed up to 3 m above the ground (160-250 g ha⁻¹). Conversely, percent frequency increased significantly with number of treatments, and sighting rates rose in the diurnal Dwarf Gecko *Lygodactylus chobiensis* (Chobe Dwarf Gecko) – lizard nomenclature after Broadley (1988). The decrease in numbers of *M. s. wahlbergii*, which is probably territorial, was attributed to an increase in whole body DDT residue levels in relation to number of treatments. The numerical increase of *L. chobiensis* was attributed to reduced competition from *M. s. wahlbergii*, which also primarily depended on epigeal insect prey (Douthwaite & Tingle, 1994), frequenting trunk surfaces, that would have had DDT-contaminated particles adhering to their bodies. *Lygodactylus chobiensis*, on the other hand, depends more on termites as prey (Branch, 1988) which are sub-surface dwelling and therefore less exposed to contamination. Although neither of these lizards occurs in Tanzania (Broadley and Howell, 1991), the observation of predation by the closely related *M. s. striata* on the smaller *Lygodactylus l. luteopicturatus* belonging to the same genus suggests that direct predation, in addition to competition for refuges, may also explain why the number of *L. chobiensis* rose with *M. s. wahlbergii*'s decline, notwithstanding the different invertebrate prey ingested by the two species in Zimbabwean woodland.

REFERENCES

- Branch, B. (1988). *A field guide to the snakes and other reptiles of southern Africa*. London: New Holland. 328 pp.
- Broadley, D.G. (1988). A check list of the reptiles of Zimbabwe, with synoptic keys. *Arnoldia Zimbabwe* 9: 369-430.
- Broadley, D.G. and Howell, K.M. (1991). *A check list of the reptiles of Tanzania, with synoptic keys*. Syntarsus No. 1, 1-70. Bulawayo: The Natural History Museum of Zimbabwe.
- Douthwaite, R.J. and Tingle, C.C.D. (eds) (1994). *DDT in the tropics*. Chatham: Natural Resources Institute. 195 pp.
- Lambert, M.R.K. (1993). Effects of DDT ground-spraying against Tsetse flies on lizards in N.W. Zimbabwe. *Environmental Pollution* 82: 231-237.