



Predation by a Great Plated Lizard, *Broadleysaurus major* (Duméril 1851), on a Guttural Toad, *Sclerophrys gutturalis* (Power 1927), in Dar es Salaam, Tanzania

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The Great Plated Lizard, *Broadleysaurus major* (Duméril 1851), is a large diurnally active gerrhosaurid restricted

to sub-Saharan Africa (Bates et al. 2013; Spawls et al. 2018), where it occupies various habitats including urban areas. It



Figure 1. Predation of a Guttural Toad (*Sclerophrys gutturalis*) by a Great Plated Lizard (*Broadleysaurus major*): The lizard holding its incapacitated prey shortly after the event was discovered (A); an abandoned carcass, 3.5 h after the initial attempt to ingest the toad (note the crushed head and parotoid glands (B)); the lizard with its dead prey (C); and ingestion (note the toad’s hindlimbs protruding from the lizard’s mouth (D)). Photographs by John Lyakurwa (A–C) and Yusuph Wilangali (D).

is often seen around termitaria, holes, and rock/wood piles where it shelters (Spawls et al. 2018). *Broadleysaurus major* is omnivorous, feeding mostly on arthropods but also consuming some plant matter (Cooper and Vitt 2002; Spawls et al. 2018). Until now, the only vertebrates reported in the diet of *B. major* were lizards (Spawls et al. 2018). Herein we report an observation of a Great Plated Lizard preying on a Guttural Toad (*Sclerophrys gutturalis*). The two species have almost identical distributions that include urban areas (Spawls et al. 2018; Channing and Rödel 2019), although the toad has been introduced to Mauritius and Reunion Islands, as well as some localities in South Africa (Measey et al. 2017; Telford et al. 2019).

At 0703 h on 14 March 2024, we found an adult *B. major* (total length ~40 cm) holding an adult *S. gutturalis* (SVL ~10 cm) (Fig. 1) near a slab of old concrete pavement near the Department of Zoology and Wildlife Conservation, University of Dar es Salaam, Dar es Salaam, Tanzania (-6.78104, 39.20458), under which the lizard was known to shelter. The lizard tried several times to swallow the toad, but the prey was too large. In an attempt to dismantle and reposition it, the lizard repeatedly hit the toad against a rock; after an hour the frog's head (including the paratoid glands) was heavily damaged. The lizard easily managed to swallow the head but struggled multiple times to swallow the pectoral region, and at 1027 h abandoned its kill and moved about 5 m away. Fifteen minutes later, the lizard was still looking in the direction of the prey. Assuming the event was over, we moved to inspect and photograph the dead frog. While repositioning it, the lizard moved in quickly, apparently unafraid of our presence, grabbed its prey, moved 2 m away, and resumed ingestion. This time the lizard was more vigorous

and hit the frog on stones until some internal contents were visible. At 1103 h the lizard had swallowed the head and forelimbs and progressed to the groin. Ten minutes later ingestion was complete. The lizard moved to a basking site and was seen in the same area 3 h later and on the following two days.

Despite taking more than four hours, the lizard seemed very capable of hunting, handling, and swallowing its amphibian prey. *Sclerophrys gutturalis* and its congeners release toxic secretions from their paratoid glands (Channing 2001) that are known to poison predators such as cats and dogs (Barbosa et al. 2009). However, the lizard did not seem to be affected.

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