NATURE IN SINGAPORE **18**: e2025021 Date of Publication: 28 February 2025 DOI: 10.26107/NIS-2025-0021 © National University of Singapore

Biodiversity Record: Attempted predation of banded bullfrog by sunbeam snake

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Recommended citation. Azam HBM (2025) Biodiversity Record: Attempted predation of banded bullfrog by sunbeam snake. Nature in Singapore, 18: e2025021. DOI: 10.26107/NIS-2025-0021

Subjects: Sunbeam snake, *Xenopeltis unicolor* (Reptilia: Squamata: Xenopeltidae); Banded bullfrog, *Kaloula pulchra* (Amphibia: Anura: Microhylidae).

Subjects identified by: Hamadnurrifat Bin Mohd Azam.

Location, date and time: Singapore Island, Loyang Way; 14 January 2025; around 0754 hrs.

Habitat: Suburban. Small grass patch adjacent to a bus stop along a busy road, next to a drain.

Observer: Hamadnurrifat Bin Mohd Azam.

Observation: An adult sunbeam snake of about 95 cm total length was observed actively coiling around a banded bullfrog (Fig. 1). The snake thrashed about while maintaining the coil (Fig. 2), and the frog seemed to be inflated, possibly as a defense mechanism (Fig. 3). At one point, the snake bit firmly onto one of the frog's legs, apparently trying to dismember it (Fig. 4). After a few minutes, the snake was still constricting the frog, the latter's face and hands protruding out of the coil (Fig. 5). The observer then left the scene without knowledge of the outcome.

Remarks: The sunbeam snake, known for its highly iridescent scales, is a non-venomous terrestrial and sub-fossorial species that uses constriction to kill its prey, which consists of rodents, birds, frogs, lizards and other snakes (Baker & Lim, 2012; Das, 2018). An observation of this species devouring a skink, *Eutropis multifasciata*, was recently recorded by Goh (2024).

In the featured observation, the observer was unable to stay and witness if the snake was successful in ingesting the frog. The tight coils of the snake around the frog appeared to suggest that the frog was not likely to escape, although its inflated body made it look as if the snake will have a lot of difficulty swallowing it. There is a possibility for the snake to abandon its prey if it fails to do so. Failure to ingest the frog can also be induced by disturbance from human onlookers. The event took place in an area with high human traffic, the observer with multiple other people having alighted from a bus only about a metre away from the subjects. Known to be primarily nocturnal (Baker & Lim, 2012), it seems unusual for a sunbeam snake to be hunting and devouring prey in the day.

Literature cited:

Baker N & Lim KKP (2012) Wild Animals of Singapore. A Photographic Guide to Mammals, Reptiles, Amphibians and Freshwater Fishes. Draco Publishing and Distribution Pte. Ltd. and Nature Society (Singapore), 180 pp.

Das I (2018) A Naturalist's Guide to the Snakes of Southeast Asia, 2nd edition, John Beaufoy Publishing, United Kingdom, 176 pp.

Goh YL (2024) Biodiversity Record: Predation of many-lined sun skink by sunbeam snake. Nature in Singapore, 17: e2024103. DOI: 10.26107/NIS-2024-0103



Fig. 1. Sunbeam snake coiled around a banded bullfrog as how observer found it.
Fig. 2. Snake trashing around while still constricting the frog.
Fig. 3. Banded bullfrog inflating its body as a possible defense mechanism.
Fig. 4. Snake observed pulling the leg of the frog.
Fig. 5. Banded bullfrog still being constricted just before observer left the scene.
(Photographs [Figs. 1 & 5] and screenshots from video [Figs. 2–4] by: Hamadnurrifat Bin Mohd Azam)