

A Kopstein's bronzeback eating a green crested lizard

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Subjects: Kopstein's bronzeback, *Dendrelaphis kopsteini* (Reptilia: Squamata: Colubridae);
Green crested lizard, *Bronchocela cristatella* (Reptilia: Squamata: Agamidae).

Subjects identified by: Nick Baker.

Location, date and time: Singapore Island, Central Catchment Nature Reserve, Lower Peirce forest; 28 May 2018; 1703-1753 hrs.

Habitat: Secondary forest, at a small stream.

Observers: Nick Baker & Sophia Sak.

Observation: A snake of around 1 m total length was observed from a distance of about 4 metres. It was first seen at 1703 hrs, in a stream dragging a partly-submerged and apparently dead green crested lizard along a small branch, under the observation of a common snakehead (*Channa striata*) fish (Fig. 1). By 1711 hrs, with its jaws latched onto the lizard's head, the snake had succeeded in hoisting its prey up into a tangle of vegetation two metres above the stream (Fig. 2). At 1719 hrs, the snake began to swallow the lizard head-first (Fig. 3). At 1744 hrs, the snake had changed its position in the vegetation, and had consumed the lizard up to its hind legs. It appeared that the prey was worked into the snake's throat by the teeth at the rear part of the snake's upper jaws (Fig. 4). By 1749 hrs, with the lizard's tail extruding from its mouth, the snake moved deeper into the vegetation (Fig. 5) out of the observers' view.

Remarks: A similar predation event involving the same species of predator and prey was observed by O'Dempsey (2011). As in the featured observation, the prey lizard was hardly moving when swallowed by the snake. McCleary & Ichtiarani (2015) also witnessed a similar predation process involving the same two species at Bukit Batok Nature Park. However, they mis-identified the lizard as *Calotes versicolor* possibly from its brown colouration. *Bronchocela cristatella* is usually brilliant green, but tends to turn dark brown when stressed (Grismer, 2011: 142). The prey lizard had initially attempted escape by thrashing its body, but later moved its body and limbs occasionally when the snake had begun to consume it. This suggests that the lizard was being immobilised.

Given that the snakes of the genus *Dendrelaphis* are not known to be venomous (at least to humans) (see Das, 2010) and do not constrict prey, it seems possible that relatively large prey are immobilised with venom before they are consumed. Although O'Dempsey (2011) declares 'that *Dendrelaphis kopsteini* and possibly other bronzebacks are in fact venomous', this does not appear to have been studied.

In this observation, the lizard seems to have been attacked and killed (or immobilised) earlier by the snake above the stream, and then dropped accidentally into the water. Perhaps both snake and lizard had fallen in together. It did not seem likely that the lizard had drowned in the water. Apparently the snake had retrieved it from the water to consume at a safer location.

References:

- Das, I., 2010. *A Field Guide to the Reptiles of South-east Asia*. New Holland Publishers (UK) Ltd. 376 pp.
- Grismer, L. L., 2011. *Lizards of Peninsular Malaysia, Singapore, and their Adjacent Archipelagos. Their Description, Distribution, and Natural History*. Edition Chimaira, Frankfurt am Main. 728 pp.
- McCleary, R. J. R. & R. Ichtiarani, 2015. Predation of a non-native changeable lizard (*Calotes versicolor*) by the native Kopstein's bronzeback snake (*Dendrelaphis kopsteini*) in Singapore. *Herpetology Notes*. 8: 303-304.
- O'Dempsey, T., 2011. Reptile eats reptile. *Nature Watch*. 19 (2): 22-23.



Fig. 1. The snake dragging a partly-submerged Green Crested Lizard along a small branch while a common snakehead, *Channa striata*, looks on (note pair of reddish eyes near the lizard's left hind limb).



Fig. 2. The snake hoisting its prey by the head into a tangle of vegetation 2 metres above the stream.

Photographs by Nick Baker



Fig. 3. Having successfully dragged the lizard into the vegetation, the snake starts to swallow its prey head first.

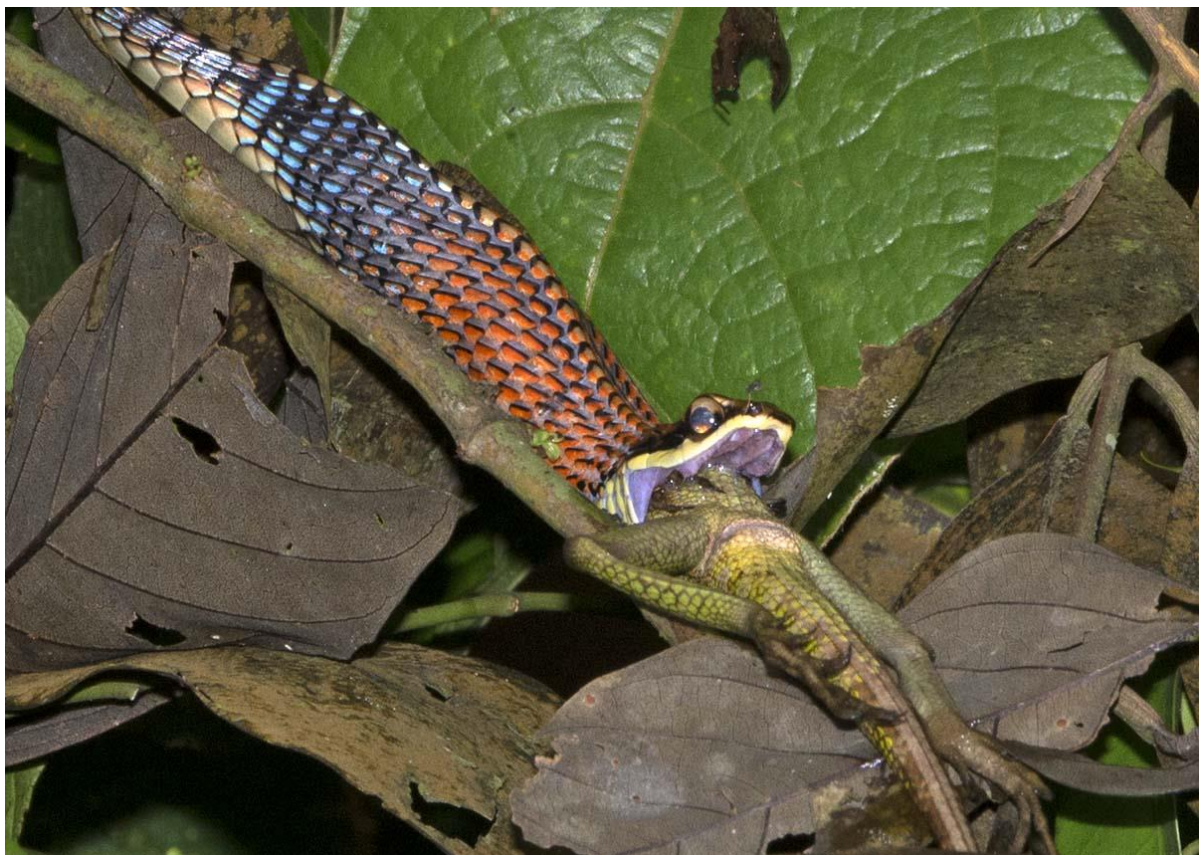


Fig. 4. The snake having swallowed the head and most of the lizard's body. Note the teeth at the rear of the upper jaws working to push the lizard down the snake's throat.

Photographs by Nick Baker



Fig. 5. With only the tail extruding from its mouth, the snake moved away deeper into the vegetation.
Photograph by Nick Baker