Kopstein’s bronzeback snake (Dendrelaphis kopsteini) is one of a number of Dendrelaphis species found throughout Asia, Papua New Guinea, and Australia. It was previously included as part of the species D. formosus (the elegant bronzeback) and has long been confused with D. cyanochloris (Wall’s bronzeback). Recent examinations of these three species, however, have led to clarified definitions of each, including placement of D. kopsteini into its own distinct species (Vogel and van Rooijen, 2007). The genus is currently considered to contain 41 (Uetz and Hošek, 2015) or more different species, many of which have been named recently (Vogel and van Rooijen, 2008a,b; 2011a, b, c), have been elevated from subspecies to species status (Vogel and van Rooijen, 2011a), or have had their original monikers restored (Vogel and van Rooijen, 2011a). In Singapore, there are six known species of Dendrelaphis (caudolineatus, cyanochloris, formosus, haasi, kopsteini, and pictus). They inhabit green spaces ranging from parks and gardens to more protected areas such as the Central Catchment Nature Reserve. Although not much is known concerning their natural history in general, they all are thought to feed mainly on small vertebrate prey, including frogs, lizards, and birds (Das, 2010).

The distribution of D. kopsteini includes Thailand; the Malay peninsula to Singapore; Sumatra, Indonesia (Vogel and van Rooijen, 2007); and Borneo (Das, 2007). A distinguishing characteristic of D. kopsteini is the presence of orange-red coloration in the nuchal region posterior to the head. It is a slender snake that is scansorial (but mainly arboreal) in habits and has a large eye relative to the body. These characteristics make it particularly well adapted for hunting diurnal, arboreal prey species. It is often cited as preying mainly upon lizards and frogs (Baker and Lim, 2008), but the only published prey species for D. kopsteini is the frog Rhacophorus dulitensis (Dehling, 2010), the snake D. pictus (Ng, 2015), and a gliding gecko (Ptychozoon kuhl). This latter item was published as prey for D. formosus, before the designation of D. kopsteini (Das, 1999). The individual animal in question was, however, subsequently determined to be a D. kopsteini (Das, pers. comm.). There are also photos of this species consuming (or attempting to consume) the green crested lizard (Bronchocela cristatella; Baker, 2015; Yam, 2010) on the internet. D. kopsteini is thought to be non-venomous (Baker and Lim, 2008).

On 14 December 2014 at 13:28 local time, we noticed an adult D. kopsteini fall out of a tree at Bukit Batok Nature Park (01.34966°N 103.76487°E; datum: WGS 84), Singapore. Upon closer inspection, we saw that the snake was grasping a changeable lizard (Calotes versicolor) in its mouth, and that the lizard was attempting escape by thrashing its body. The snake carried the lizard up a hill a distance of about 4 m and then into a tangle of trees to a height of about 2.5 m above the ground. At this point, the snake began to consume the lizard (Fig. 1), which occasionally moved its legs or body. Over the next 32 min, the snake slowly ingested the lizard until only ~5 cm of the tail was protruding from the snake’s mouth. At this point, the snake climbed higher into the canopy until it was out of our line of sight.

Although it is found naturally further north in Southeast Asia, C. versicolor is considered a non-native species in Singapore, having been introduced in the

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1 National University of Singapore, Department of Biological Sciences, 14 Science Drive 4, Singapore 117543;
2 National University Hospital, 5 Lower Kent Ridge Road, Singapore 119074
* Corresponding author e-mail: 19venom84@gmail.com

Predation of a non-native changeable lizard (Calotes versicolor) by the native Kopstein’s bronzeback snake (Dendrelaphis kopsteini) in Singapore

Ryan J. R. McCleary1,* and Reyla Ichtiarani2

late 1980s (Chou, 1994). It can be found in habitats ranging from urban parks and other disturbed habitats to secondary forests, and its success in Singapore is likely responsible for the concomitant decline in populations of *Bronchocela cristatella*. This report adds to the list of prey species of *D. kopsteini* and shows that this species can consume non-native prey.

References


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