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Title Predation of the common tree frog (*Polypedates* sp) by the red-necked keelback (*Rhabdophis helleri*): A field observation

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Rhabdophis helleri, commonly known as the red-necked keelback from the Colubridae family, is a diurnal and nocturnal species (Das 2010). India, Bangladesh, Nepal, Bhutan, China, Myanmar, and Vietnam are among the countries where red-necked keelbacks are found (Das and Das 2017; IUCN 2015; Liu et al. 2021; Soud and Mojumder 2007; Uetz et al. 2019). In Bangladesh, it is found in central, mixed evergreen forests and surrounding areas in the northeast and southeast, and near threatened species (Hasan et al. 2014; IUCN 2015; Shome et al. 2020). It is a venomous snake that mainly feeds on frogs and toads (Weinstein 2017, Yoshida et al. 2020). The venom contains hemotoxins, which can affect blood clotting and cause internal bleeding in severe cases (Nelwan et al. 2016). It has large teeth instead of fangs and toxic saliva, and even a bite from a young snake can cause serious symptoms (IUCN 2015). The few documented diet notes on it include reports of *R. helleri* from Kaptai National Park in Bangladesh eating an *Uperodon globulosus* (Shihan and Kabir 2015), and a juvenile *R. helleri* eating *Duttaphrynus melanostictus* from Thailand (Mohammadi and Hall 2012). Here, we report that *R. helleri* preys on *Polypedates sp.*

At 0828 am. on April 26, 2025, at the Hazariakhil Wildlife Sanctuary (22.705235 N, 91.691299 E), in Bangladesh's Chittagong Division, a red-necked keelback, *R. helleri,* was seen feeding on a common tree frog, *Polypedates* sp. The predation took place on the ground, which was covered with short grass and dry leaf litter. The snake initiated the attack by delivering an initial bite to the ventral side of the frog. After biting the frog, the snake quickly pulled it to the side and moved to a nearby place to hold its prey safely. The frog tried to escape by holding onto the surrounding shrub (Figure 1A) and gave two slow, faint calls during the struggle. About 9 minutes later at 0837 am, the frog seemed to be mostly immobilized. After three minutes the snake bit one of the frog's hind limbs and slowly began to swallow it (Figure 1B). The entire feeding process took roughly 4 minutes (Figure 1C). After finishing its meal, the snake remained stationary at the site for several minutes and then moved to take shelter under an old, abandoned tin plate nearby at 0847 am. When the snake preyed on the frog, a thick white liquid was secreted from the frog's body. During the pre-monsoon season in Bangladesh, this diurnal observation was marked by a temperature increase from 31 °C to 32 °C and a decrease in humidity from 76% to 72% at the moment of predation.

The documented predation of the common tree frog (*Polypedates* sp) by the red-necked keelback (*R. helleri*) in Bangladesh underscores the species' opportunistic diurnal feeding behavior and its ability to thrive in diverse habitats. This observation marks the first documented case of predation on the common tree frog (*Polypedates* sp) by the red-necked keelback (*R. hellleri*) in Bangladesh. It also highlights the limited research available on the species' feeding ecology. Future studies in the Hazariakhil Wildlife Sanctuary could provide valuable insights into the dietary habits, habitat diversity, and conservation of herpetofauna.

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Figure 1: Predation of *Polypedates* sp (prey) by *Rhabdophis hellleri* (predator). (A) *Polypedates* sp holding a shrub. (B) Biting on hind limbs. (C) *Rhabdophis hellleri* swallow *Polypedates* sp.