



Underwater Ingestion of a Common Asian Toad (*Duttaphrynus melanostictus*) by a Checkered Keelback (*Fowlea piscator*), in an Urban Lake in Dhaka, Bangladesh

Sajib Biswas

Department of Zoology, Jagannath University, Dhaka-1100, Bangladesh (sajib07jnu@gmail.com)

The Checkered Keelback (*Fowlea piscator*) ranges widely from Afghanistan through mainland southern Asia, China, and southeastern Asia to Singapore (Whitaker and Captain 2004; Hasan 2015), where it inhabits a wide range of freshwater habitats including water tanks, paddy fields, pools, lakes, streams, creeks, and swampy areas (Daniel 2002). These snakes are active by day and night and have a diverse diet; immature snakes take insects, tadpoles, and small frogs, whereas adults prey on fishes, frogs, lizards, and other small vertebrates, including rodents and birds (Whitaker and Captain 2004; Hasan et al. 2014; Hossain 2016). Highly opportunistic, a large individual in a human-altered habitat consumed boiled rice and cooked chicken (Muktadir and Hasan 2016). Although the diet of this snake has been amply documented, information on prey-handling behavior is sparse. After catching relatively large fish, two individuals in Nepal sought a stable substrate against which to push prey so that it could be more easily ingested (Devkota et al. 2020). Herein we report an observation of a Checkered Keelback preying on a Common Asian Toad (*Duttaphrynus melanostictus*) during which the prey was swallowed underwater.

During a herpetofaunal survey at 2318 h on 25 December 2020, I observed an adult *F. piscator* preying on

an adult *D. melanostictus* on the bank of Dhanmondi Lake in Dhaka, a megacity in central Bangladesh (23°44'50.50"N, 90°22'43.51"E). The lake supports populations of various species of cultured fish and currently has no direct connection with any stream. Toads were calling from shallow water when an approximately 1-m long Checkered Keelback approached a group of three toads and paused briefly before attempting to catch one. The first attempt failed but a second effort (Fig. 1) resulted in the snake grasping the toad's left side and working its way toward its head. The toad inflated itself and tried to use its hindlimbs to escape as the snake ingested its head. Disturbed by another observer, the snake submerged with its prey. Approximately four minutes later, the snake, with an obvious bulge caused by the ingested toad, surfaced about 4 m from where it had submerged and slowly swam away. Swallowing prey underwater appears to be an unusual feeding behavior for *F. piscator* that might have been triggered by being disturbed while feeding.

Acknowledgements

I thank Mr. Tanvir Ahmed for his valuable guidance and Mr. Md. Tareq Rahman Shohag for helping me during the observation.



Fig. 1. A Checkered Keelback (*Xenochrophis piscator*) grasping a Common Asian Toad (*Duttaphrynus melanostictus*) before ingesting it underwater in Dhanmondi Lake, Dhaka, Bangladesh. Photographs by the author.

Literature Cited

- Daniel, J.C. 2002. *The Book of Indian Reptiles and Amphibians*. Oxford University Press, Oxford, UK.
- Devkota, K., A. Maharjan, and H. Kaiser. 2020. You can't always get what you want: attempted predation and prey handling of fish by the Checkered Keelback, *Xenochrophis piscator* (Schneider, 1799) in Nepal (Serpentes: Natricidae). *Herpetology Notes* 13: 1073–1077.
- Hasan, M.K. 2015. *Xenochrophis piscator*, p. 147. In: IUCN Bangladesh, *Red List of Bangladesh Volume 4: Reptiles and Amphibians*. IUCN, International Union for Conservation of Nature, Bangladesh Country Office, Dhaka, Bangladesh.
- Hasan, M.K., M.M.H. Khan, and M.M. Feeroz. 2014. *Amphibians and Reptiles of Bangladesh - A Field Guide*. Arannayk Fundation, Dhaka, Bangladesh.
- Hossain, M. 2016. Food habits of checkered keelback, *Xenochrophis piscator* (Schneider, 1799), in Bangladesh. *Bangladesh Journal of Zoology* 44: 153–161. <https://doi.org/10.3329/bjz.v44i1.30185>.
- Moktadir, N. and M. Hasan. 2016. Unusual feeding behavior of the Checkered Keelback (*Xenochrophis piscator*) in Jahangirnagar University campus, Savar, Dhaka, Bangladesh. *Reptile Rap* 18: 32–33.
- Whitaker, R. and A. Captain. 2004. *Snakes of India. The Field Guide*. Draco Books, Chennai, India.