



Cannibalism by a Mugger Crocodile (*Crocodylus palustris*) in the Katerniaghat Wildlife Sanctuary, Uttar Pradesh, India

Shantanu S. Ugemuge¹, Akash Deep Badhawan², Pulkit Gupta¹, and Gaurav Vashistha^{1,3}

¹Gharial Conservation Programme, Katerniaghat Wildlife Sanctuary, Uttar Pradesh, India

²Katerniaghat Wildlife Division, Bahraich, Uttar Pradesh, India

³SGND Khalsa College, University of Delhi, Delhi, India (<https://orcid.org/0000-0002-5553-0725>) (gaurav.vashistha91@gmail.com)

Cannibalism can play an important role in the ecology of species by affecting population size, age structure, and dynamics (Polis and Myers 1985; Maritz et al. 2019). Resource scarcity can cause stress and competition among conspecifics, thereby affecting the frequency of cannibalism (Fox 1975; Melo et al. 2003; Pereira et al. 2017; Maritz et al. 2019). Cannibalism can also be a normal feeding behavior in which cannibals see conspecifics as easy prey and a good source of nutrition. However, conspecifics often form only a small part of the diet, indicating that this behavior can be opportunistic (Polis and Myers 1985). Most frequently, adult individuals feed on younger conspecifics, especially during the earliest stages of life such as hatchling reptiles. Cannibalism is common in both wild and captive populations (Polis and Myers 1985; Pereira et al. 2017; van Blerk et al. 2021) and has been reported in over 100 species of reptiles, including turtles, snakes, lizards, and crocodiles (Polis and Myers 1985).

The Mugger Crocodile (*Crocodylus palustris*) is one of the three crocodylian species found in India (Whitaker and Whitaker 1984). It is a highly adaptive species found in various habitats that include rivers, lakes, marshes, man-made ponds, and canals (Whitaker and Whitaker 1984; Choudhury and de Silva 2013). Muggers feed on a variety of

prey (Santiapillai and de Silva 2001; Bhatnagar and Mahur 2010; Choudhury and de Silva 2013), hatchlings and juveniles most frequently on small fishes, crustaceans, and insects, whereas prey of adults includes mammals, birds, larger fishes, and turtles (Bhatnagar and Mahur 2010; Gour 2023; Nishan et al. 2023). Cannibalism is common among crocodylians and has been reported in the wild (e.g., *Caiman crocodylus*, Staton and Dixon 1975; *Crocodylus acutus*, Richard and Wasilewski 2003; *Alligator mississippiensis*, Delany et al. 2011; *C. moreletii*, Cedeño-Vázquez et al. 2016) and in captivity (e.g., *C. porosus*, Owen et al. 2014). In Muggers, cannibalism has been reported in captivity and in the wild (Reddy 1978; Vaghashya et al. 2020).

Herein we report cannibalism by an adult Mugger on a subadult on 7 March 2023, in the Girwa River in the Katerniaghat Wildlife Sanctuary, Uttar Pradesh, India (Fig. 1). The adult ambushed the subadult that had been basking on a log near the bank and carried it to the middle of the river. There, it rolled in an effort to break its prey into pieces, a behavior typical of Muggers. After carrying it into shallower water, the adult ingested the subadult headfirst.

Cannibalism in crocodylians appears to be opportunistic and is likely affected by factors such as intraspecific competi-

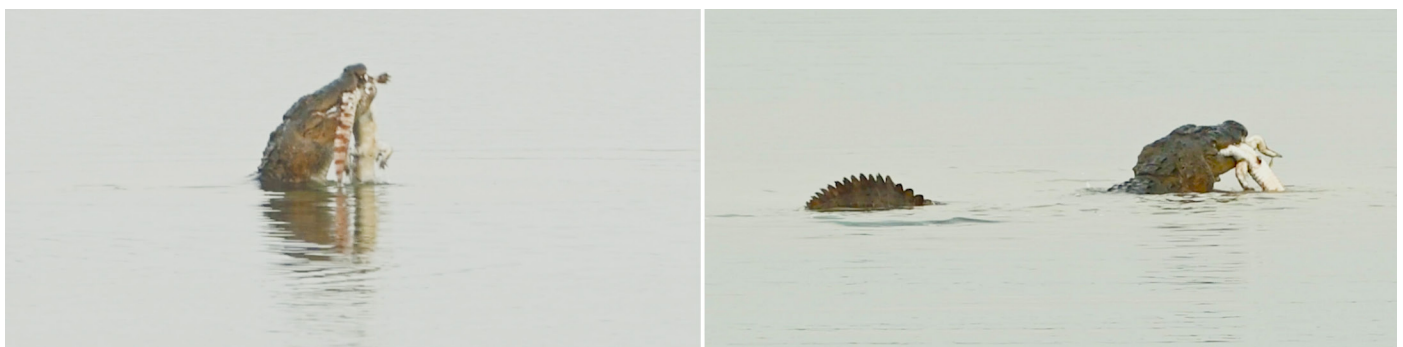


Figure 1. An adult Mugger Crocodile (*Crocodylus palustris*) preying on a subadult conspecific in the middle of the Girwa River (left) and after carrying it to shallower water (right) in Katerniaghat Wildlife Sanctuary, Uttar Pradesh, India. Photographs by Pulkit Gupta.

tion (e.g., Richards and Wasilewski 2003; Cedeño-Vázquez et al. 2016). Cannibalism can reduce competition, which could enhance access to resources, mates, and space (Kaplan and Sherman 1980; Polis 1981; Pereira et al. 2017). The frequency of cannibalism varies according to the density, age structure, and feeding rates of different individuals; hence, determining its impact is difficult as most cannibals take a variety of prey, with conspecifics forming only a small portion of the diet (Fox 1975).

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