



# Predation by Mugger Crocodiles (*Crocodylus palustris*) on Spotted Deer (*Axis axis*)

Rahul Gour

Kenneth Anderson Nature Society, No. 9/2, HCF Post, Mathigiri, Hosur, Tamil Nadu 635110, India  
 Department of Ecology & Environmental Sciences, School of Life Sciences, Pondicherry University, Puducherry 605014, India  
 (rahulgour@gmail.com; https://orcid.org/0000-0001-9483-2569)

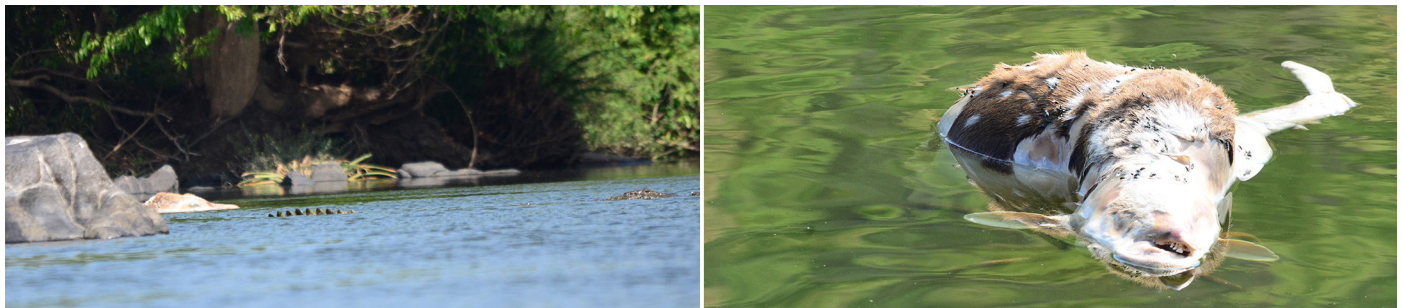
The Mugger Crocodile, *Crocodylus palustris* (Lesson 1831), is an opportunistic predator that feeds on a wide range of prey and exhibits a variety of feeding behaviors, including ambush predation (Whitaker and Whitaker 1989). Young individuals feed largely on insects, but also on small crustaceans, such as crabs and shrimp, and, as they grow in size, they start preying on vertebrates (Stevenson 2019). Subadult and adult Muggers are known to take fish, crabs, shrimp, turtles, snakes, birds, and monkeys (de Silva 2013; Vyas 2021). Large crocodiles (>3 m total length) have been recorded in several regions of the Indian Subcontinent preying on mammals like Spotted Deer (*Axis axis*), Sambar Deer (*Rusa unicolor*), and rarely, large cats, but also on domesticated animals such as cattle and buffalo (Daniel 2002; Vyas 2010, 2020; Murugan et al. 2020). However, such large prey is not as readily available as it is for sympatric Saltwater Crocodiles (*C. porosus*) (Choudhury and de Silva 2013). Bhattarai (2015) documented a Mugger Crocodile catching a Spotted Deer beneath the roots of a tree in Bardia National Park, Nepal. Similarly, Rao and Gurjwar (2013) reported several incidents of Muggers attacking livestock and buffaloes in the Chambal River region of northern India.

None of these relatively few incidents of predation on large mammals have been reported in the Cauvery River eco-

system until the survey team (who made the observations detailed below) documented predation of Spotted Deer on two different occasions during crocodile nesting surveys. Mugger Crocodiles preying on Spotted Deer in the Cauvery River represents an unusual and intriguing phenomenon in predator-prey interactions. This stretch of the river lies in the Melagiri Hill Ranges, which form critical wildlife habitats between the Eastern and Western Ghats (Tiwari and Kaliamoorthy 2018). The river meanders through valleys and forests between the Cauvery Wildlife Sanctuary in Karnataka and the reserve forests of Hosur Forest Division in Tamil Nadu.

At 0900 h on 24 April 2022 in the Oddapatty Reserve Forest (12.19 N, 77.67 E), a large Mugger Crocodile was observed feeding on the carcass of an adult female Spotted Deer from the shoreline and, at the time of the observation, a substantial portion of the deer’s limbs had already been consumed (Fig. 1). As the site of the kill was approached, the Mugger left the carcass but remained nearby at a safe distance across the river.

The second observation was recorded at 1700 h on 30 April 2022 in the Mallehalli Range Forest (12.19 N, 77.53 E), which is located 16.5 km upstream from the first incident. A large Mugger Crocodile (> 3 m) was seen feeding on a freshly killed fully grown male Spotted Deer. The



**Figure 1.** A Mugger Crocodile (*Crocodylus palustris*) waits across the river (left) from its partially eaten Spotted Deer (*Axis axis*) kill on the Oddapatty Reserve Forest stretch of the Cauvery River (right). Photographs by Jayasankar S.



**Figure 2.** A Muger Crocodile (*Crocodylus palustris*) along the Mallehalli Range Forest section of the Cauvery River (left) and a freshly killed Spotted Deer (*Axis axis*) that had both hindlimbs torn off (right). Photographs by Vinay N.S.

Mugger had sunk its jaws in the hind end of the deer before employing a death roll that dismembered the deer's rear left leg (Fig. 2). Feeding lasted about two hours. This stretch of the Cauvery River is relatively undisturbed and appears to be suited for mammals seeking access to the water.

Although we acknowledge that Muger Crocodiles have been reported with similar prey in other regions of their distribution, predation on large mammals in the Cauvery River of southern India appears to be a relatively uncommon event. Muggers in the river feed largely on fish and other riverine animals. An investigation of crocodiles preying on large mammals could provide insights into potential conditions such as an inadequate supply of aquatic organisms due to overfishing, water pollution, and habitat fragmentation.

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