

OBSERVATIONS OF LARGE-TOOTHED FERRET BADGER (*MELOGALE PERSONATA*) IN PATHARIA HILL RESERVE FOREST AT NORTHEAST BANGLADESH

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Asia is a home for the genus *Melogale* represents five species (*M. personata*, *M. moschata*, *M. orientalis*, *M. everetti*, and *M. cucphuongensis*) belonging to the family Mustelidae (Wozencraft 2005, Nadler *et al.* 2011). Among them, Large-toothed ferret badger (*M. personata*) is distributed in India (Ved & Sangma 2007, Datta *et al.* 2008, Kakati 2014, Choudhury 2013), Myanmar, Thailand (Francis 2019), Nepal (Bhatta *et al.* 2021), Laos (Coudrat *et al.* 2014), Cambodia (Schank *et al.* 2009), Vietnam (Robertson 2007, Willcox *et al.* 2014), and southern China (Lau *et al.* 2010). The occurrence of *M. personata* is poorly known in Bangladesh, while one individual of the species was reported from a zoo (Islam *et al.* 2008), and another individual from Patharia Hill Reserve Forest by camera trap method (Rahman *et al.* 2021). Islam *et al.* (2008) identified the individual based on morphological and dental characteristics. According to IUCN red list, the Large-toothed ferret badger is listed as Least Concern globally (Duckworth *et al.* 2016), whereas it was not listed in country red list of IUCN Bangladesh (2015) because of no information. Based on the known distribution in these neighboring countries, the species was supposed to occur in Bangladesh but there was no information of presence in the wild. Here, we present the two occurrence of *M. personata* from natural habitat of Madhabkunda Eco-Park (MEP) in Patharia Hill Reserve Forest, northeast Bangladesh. Between May 2023 and May 2024, we made two independent sightings of *M. personata* in Madhabkunda Eco-Park through direct observation method while conducting nocturnal fieldwork to collect ecological data of Bengal slow loris. Madhabkunda Eco-Park (24°38'25"N 92°13'06"E) is laid under Patharia Hill Reserve Forest situated at Moulvibazar district in northeast Bangladesh features a tropical mixed evergreen forest (Islam *et al.* 2022).

The first individual of *M. personata* was sighted on 11th May 2023 at 20:15h (GMT+6) while foraging on the ground. The habitat was bushy and located near a waterfall. The observation lasted about one minute before the individual vanished into the dense bush.

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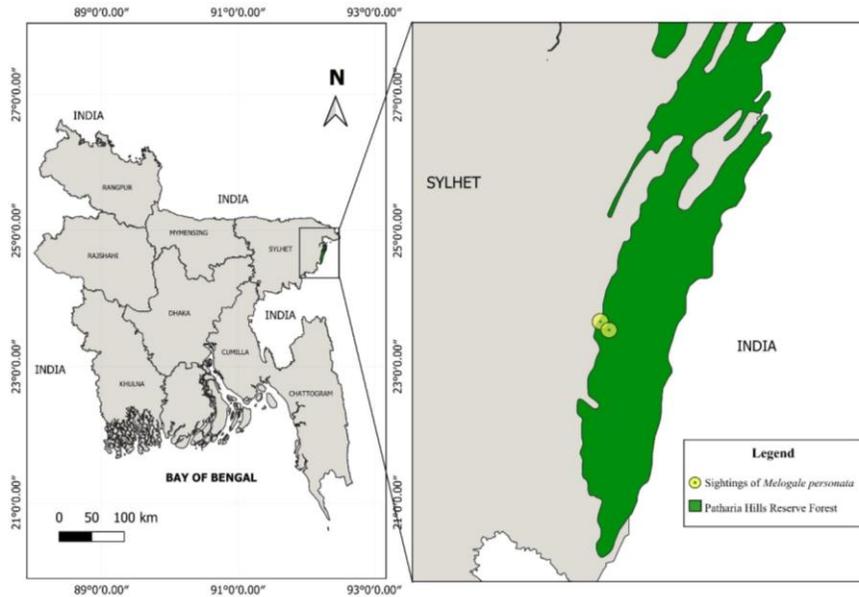


Fig. 1. Map of study place where *Melogale personata* sighted in Bangladesh.

The second individual encountered on 2nd March 2024 at 04:37h (GMT+6) distancing 0.67 km from the 1st individual at an elevation of 101m near streams in a bushy terrestrial habitat. The observation lasted for six minutes. One side of the stream surrounded by banana garden with mixed bushy habitat, while the other side was lined with tea gardens. During this time, the individual was observed foraging on ground for two minutes, followed by standing like stuck without any movement of tail, ear, and legs for three minutes (Fig. 2A). Afterwards, it slowly run away from the area along the stream's edge and disappeared into the bushes. This observation took approximately one minute (Fig. 2B). Both individuals were encountered at the edge of the forest and close to the human settlement.

The badger was characterized by its fur color dominated by black pattern on head, white facial mask and a continuous white dorsal stripe extending from head portion to its tail distinguished them from Small-toothed ferret badger, *M. moschata*. The tail length appeared to be approximately half of its head-body length. The bushy tail pale in color with whitish distal half. The individuals were identified based on photographic evidence (Fig. 2) and further confirmed by the experts. The individuals were adult and sex were not determined. The confirmed occurrences of *Melogale personata* have not been evaluated by IUCN Bangladesh (2015). The findings of *Melogale personata* mark a



Fig. 2. Pictures of Large-toothed ferret badger (A- Mask feature on face; B- continuous white stripe from head to posterior side).

significant addition of a species to the country's mammalian fauna and IUCN Bangladesh assessment status of mammalian fauna. Previous studies from neighboring areas of India were Jalpaiguri (Chakraborty & Bhattacharyya 1999), Sikkim (Jha 1999), Manipur, Nagaland, Arunachal Pradesh, and Assam (Menon 2014) have suggested a wider distribution of this species. These findings also hinting at its potential presence in the easternmost forest of Bangladesh as well the *M. personata* documented from Patharia Hill Reserve Forest by Islam *et al.* (2008) from captivity. Rahman *et al.* (2021) employed camera trap methods in the same forest range and successfully sighted an individual of *M. personata* for the first time in the wild. Then, using the same technique in the same geographic area of Bangladesh, a number of *Melogale* individuals were recorded by Rahman *et al.* (2023). Consequently, our sightings from the Madhabkunda Eco-Park under Patharia Hill Reserve Forest indicating the potential habitat for a substantial population of the genus and the species. Given the importance of the Patharia Hill Reserve Forest for the occurrence of *M. personata*, future research and conservation efforts should focus on the habitat with this key species. Systematic surveys and documentation targeting *M. personata* and other small carnivores are crucial to comprehensively understand the distribution and conservation status of this species in Bangladesh.

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