

**PHOTOGRAPHIC EVIDENCES OF PYGMY WHITE-TOOTHED SHREW
SUNCUS ETRUSCUS IN BANGLADESH**

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The Pygmy White-toothed Shrew *Suncus etruscus* (Savi, 1822), a species of the mammalian order Eulipotyphla and the family Soricidae, is one of the smallest and most widely distributed terrestrial mammals globally (Hutterer 2005). Excluding the tail, the species' body length ranges from 3 to 5.5 cm, with the tail measuring approximately 2.5 to 3 cm (Menon 2014). Its body mass varies between 1.3 and 2.5 g, with an average of around 1.8 g (Ferry 2005). *Suncus etruscus* is distributed across southern Europe, North Africa, the Near East, the Arabian Peninsula, and mainland Asia, extending from Central and South Asia to Southeast Asia, reaching as far as Borneo (Aulagnier et al. 2017, Fig. 1). In South Asia, it has been reported from Afghanistan, Pakistan, India, Sri Lanka, Nepal, and Bhutan (Ferry 2005). Although the species was suspected to occur in Bangladesh due to its distribution in neighboring countries, no concrete evidence, such as confirmed photographic or specimen records, had been documented (IUCN Bangladesh 2015). Here, we present the first photographic evidence of its occurrence in three distinct districts of Bangladesh.

Between October 2019 and November 2021, we recorded three independent sightings of *Suncus etruscus* in the Chapai Nawabganj, Tangail, and Moulvibazar districts of Bangladesh (Fig. 1). All sightings were incidental, and although digital images were captured, no morphometric measurements were obtained. The first sighting occurred on 18 October 2019 around midday, when an individual of *S. etruscus* was discovered in a small pit in a mango orchard located in the Sonamasjid area of Chapai Nawabganj district in northwestern Bangladesh (24°48'54.76" N, 88°8'36.91" E; Fig. 2A) during field surveys monitoring local biodiversity. The individual was characterized by a small body, a large snout and ears, a prominent whisker array, limbs positioned laterally, a posterior body narrower than the anterior, and a long tail with scattered white hairs at the base. Its dorsal coat was velvety dark greyish-brown, while the ventral portion was silvery-brown. The individual appeared healthy but exhibited limited movement. After approximately 15 minutes of observation and

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photography, it entered a burrow within the pit.

The second individual of *S. etruscus* was photographed by a local eco-guide on 13 October 2021 in Madhupur National Park, located in north-central Bangladesh (24°42'29.32" N, 90°4'39.96" E; Fig. 2B). The park encompasses 8.4 km² of moist deciduous Sal (*Shorea robusta*) forest, which constitutes the largest remaining tract of Sal Forest in Bangladesh (Ahmed and Rupom 2021). The individual was observed for a brief period before disappearing into a burrow, exhibiting a greyish dorsal coat.

The third sighting of *S. etruscus* occurred on 28 November 2021 in Lawachara National Park, located in northeastern Bangladesh (24°19'51.58" N, 91°47'35.55" E; Fig. 2C), during the collection of behavioral ecology data on a primate species. This protected area encompasses 12.5 km² of broadleaf semi-evergreen forest and is renowned for its rich biodiversity, including several globally threatened species (Hakim et al. 2020, Hasan et al. 2021, 2022, IUCN Bangladesh 2015). The individual was found wet and immobile near the railway that passes through the forest. We relocated it from the rail track to nearby bushes, and after three minutes, it began moving slowly before disappearing into the bushes.

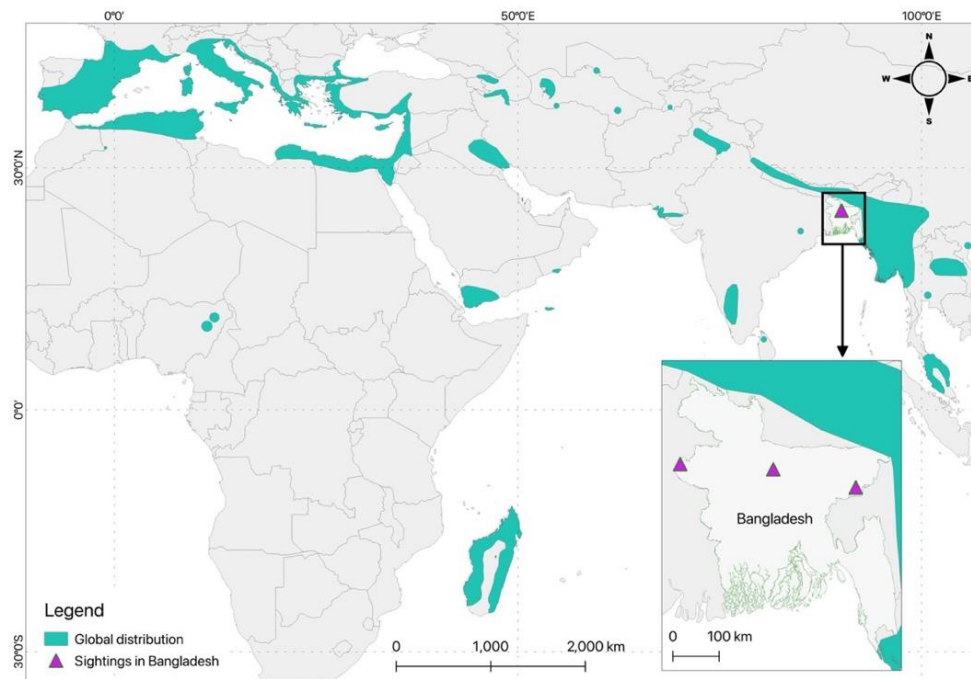


Fig. 1: Global distribution of *Suncus etruscus* with the sighted locations in Bangladesh.



Fig. 2. Photographs of *Suncus etruscus* individuals from Chapai Nawabganj (A), Madhupur National Park (B), and Lawachara National Park (C) in Bangladesh.

We observed slight variations in the dorsal coat coloration among the individuals, with the first being notably darker than the others (Fig. 2; from left to right). Such coat-color variation may also exist in other regions (Hutterer 2005). However, due to the lack of information on their ages, morphometrics, and microhabitat preferences, we are unable to draw definitive conclusions regarding the observed coat-color variations in Bangladesh. The systematics of *S. etruscus* is still unclear and particularly, the representatives of the Asian clades deserve further investigations (Hutterer 2005). Therefore, we recommend further studies on these variations across the species' distribution range, along with phenotypic and genetic analyses, to confirm its taxonomy.

In Bangladesh, the *Suncus* genus was previously represented solely by the Asian House Shrew (*S. murinus*). Our observation of three distinct individuals of *S. etruscus* constitutes the second species of shrew in Bangladesh and an addition to the country's known mammalian fauna (IUCN Bangladesh 2015, Khan 2018). Having a wide distribution range including many protected areas with a presumed large population and tolerance of habitat modifications, *S. etruscus* is listed as a globally Least Concern species and unlikely to be declining fast enough to be enlisted in any higher threatened categories (Aulagnier *et al.* 2017). Thus, our sightings of three different individuals in three different districts in Bangladesh on both sides of the major Bhramaputra River barrier may indicate a wide national distribution that requires further systematic exploration of the neglected small mammal communities. Notably, *S. etruscus* is not easy to see due to its fossorial lifestyle (Menon 2014). All three records of the species were during October-November, i.e., towards the end of the rainy season, and one individual was found wet. Probably *S. etruscus* came out on the surface due to rainwater deposition in the burrows. Hence, as a putative widespread species, there can be a considerable variation in its ecological adaptations across the distributed biogeographic regions which can be important to study in determining their population management strategies in any given area.

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