

## First Record of Rare White Elephant in the Wild from Bangladesh

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**Abstract.** We report the first record of a white elephant in the wild from Bangladesh. The white elephant is estimated to be approximately one month old and is part of a herd consisting of nine individuals. This elephant herd inhabits the fragmented, human-dominated forest landscapes of the south-eastern Chittagong Hill Tracts, a region increasingly impacted by habitat loss and human-elephant conflict. Our finding represents a significant addition to the records of white elephants in the wild and may have broader implications for understanding rare pigmentation traits and their occurrence in wild populations.

### Introduction

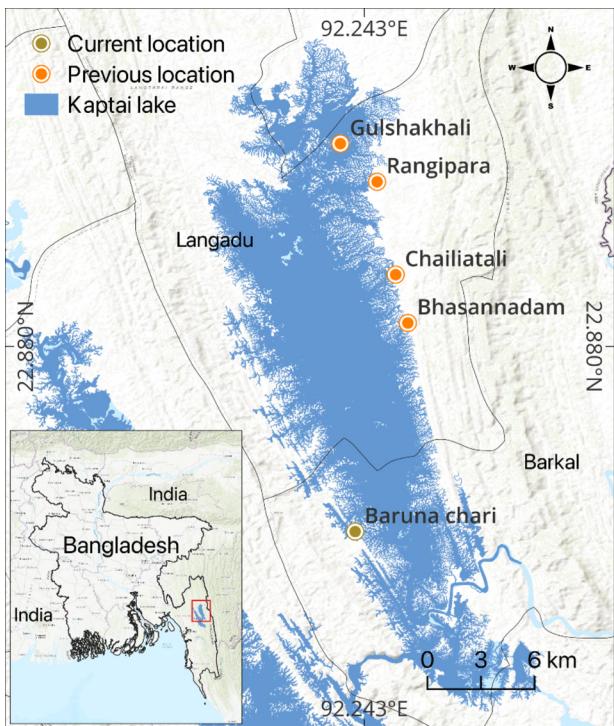
White elephants, often inaccurately referred to as albino elephants, represent a rare phenotypic variant of the Asian elephant (*Elephas maximus*) characterised by partial or complete loss of pigmentation (McCardle 2012). The term "white elephant" originates in Southeast Asia, particularly in Thailand (formerly Siam), where such individuals have historically been venerated as sacred symbols of royal authority and divine favour (Vincent 1874; Min & Thida 2020). Their skin typically exhibits a reddish-brown hue that lightens to pink when wet, and they are distinguished by features such as pale eyelashes and light-coloured body hair (Dharmarathne & Wijesinghe 2020). True albinism, defined by the complete absence of melanin, is exceedingly rare; most so-called white elephants instead exhibit hypopigmentation resulting from specific genetic mutations (Pawelek & Körner 1982). The cultural and religious significance of white elephants continues to influence their fate across much of Southeast Asia. In countries such as Myanmar and Laos, they are almost invariably captured and made life-long captives.

The wild resident population of elephants in Bangladesh is composed of several fragmented subpopulations, with an estimated national count of approximately 268 individuals (range: 210–330), primarily distributed across the south-eastern regions of Chattogram, Cox's

Bazar, and the three hill districts. The south-eastern hill districts support geographically isolated elephant groups inhabiting Lama (estimated at 23–39 individuals), the Bandarban region (9–14 individuals), the southern Chittagong Hill Tracts region (22–33 individuals), and the northern Chittagong Hill Tracts region (13–21 individuals) (IUCN Bangladesh 2016).

The south-eastern hill districts of Bandarban, Rangamati, and Khagrachhari – collectively known as the Chittagong Hill Tracts – form a rugged, mountainous region bordering the Indian state of Mizoram and Myanmar's Rakhine State. The Chittagong Hill Tracts are characterised by elevations exceeding 300 m above sea level and a mosaic of semi-evergreen forests interspersed with bamboo groves and shrubs. A significant hydrological feature of the region is the Kaptai Lake, an artificial reservoir formed by damming the Karnaphuli River near Kaptai town during 1960s. The lake lies entirely within Rangamati District and spans several upazilas, including Rangamati Sadar, Kaptai, Naniarchar, Langadu, Baghaichhari, Barkal, Juraichhari, and Belaichhari. The lake's shoreline and basin exhibit highly irregular geomorphology (Chowdhury 2021).

Historically, the Chittagong Hill Tracts supported a substantial population of Asian elephants, particularly prior to the inundation caused by the formation of Kaptai Lake. In recent years, a resident elephant herd continues to range across



**Figure 1.** Observed locations of the herd with white calf in Rangamati District.

forest patches and human-dominated landscapes in Barkal Upazila (sub-district) (Fig. 1). This sub-district encompasses an area of 761 km<sup>2</sup>, including portions of Kaptai Lake, bounded by Baghaichhari Upazila to the north, Langadu and Rangamati Sadar Upazilas to the west, Juraichhari Upazila to the south, and the



**Figure 2.** The white calf underneath its mother.

Indian state of Mizoram to the east. The human population inhabiting the area consists predominantly of ethnic communities, with approximately 71% belonging to Chakma, Marma, and Pankhoa, while the remainder comprises of settler communities (Rahman 2023).

During a field expedition on 16 June 2025, we observed an elephant calf exhibiting a pale pink body coloration within a herd roaming the forest fragments of Barkal Upazila (Fig. 2). The calf, estimated to be approximately one month old, was part of a group (Fig. 3) consisting of nine



**Figure 3.** The white calf with other members of the herd.

individuals. There has been no prior documentation of such individuals in either wild or captivity within the country.

We documented each individual in the herd by taking photographs and assigned age-sex following the scale developed for Asian elephants (Fernando *et al.* 2022). A total of nine elephants were confirmed in the group: two adult males, four adult females, one female of size class IV, one juvenile size I, and the youngest, a white calf (juvenile size I). Notably, the white calf's skin appeared entirely pink when wet, particularly after swimming – highlighting the hypo-pigmented phenotype. According to local residents, one of adult male elephants is occasionally observed associating with this herd, although it typically remains solitary and ranges independently, which we found in another isolated island apart from the herd. One female, who was larger and distinguished by widespread depigmentation on the head and trunk, was presumed to be the matriarch (Fig. 4). The mother of the white calf exhibited normal pigmentation.



**Figure 4.** Presumed matriarch of the herd.

In the morning, we observed the herd resting in horticultural plantations on a hilly island encircled by water. The interconnected islands in this area cover several hectares and are characterised by a mix of temporary and permanent human settlements surrounded by orchards and planted vegetation. Within the herd, several adult elephants were observed lying down while others remained alert, standing guard around the group. By midday, the herd began moving along the island's periphery for feeding. Notably, the white calf – accompanied by its presumed mother and another adult female with the other size I juvenile – remained concealed within dense vegetation, displaying secretive behaviour throughout the day.

While white elephants are culturally and historically associated with Thailand and Myanmar – where they are traditionally kept in captivity – such individuals are exceedingly rare in the wild. In 1993, Sri Lanka reported the presence of a white elephant for the first time, which, to date, remains the only known individual of its kind documented living freely in the wild (CCR 2004; Holden 2004). Our record represents the first occurrence of a white elephant, either in the wild or in captivity, in Bangladesh.

The remaining forest habitats in the study site are highly fragmented, with only a few degraded patches managed by the Bangladesh Forest Department, while most of the islands have been converted into human settlements and horticultural plantations (BFD 2017). During monsoon, these islands become further isolated by rising water levels in Kaptai Lake, significantly restricting the available habitat for elephants. However, when water retreats in winter, the herd moves to areas such as Bhasannadham, Chailitali, Rangipara and Gulshakhali on the other side of the lake (Fig. 1) (Aziz 2002, 2011). The dominance of fruit crops such as mango (*Mangifera indica*), lychee (*Litchi chinensis*), jackfruit (*Artocarpus heterophyllus*), and Indian gooseberry (*Phyllanthus emblica*) has made these areas attractive for foraging, thereby intensifying human-elephant conflicts. The limited availability of natural forests and the absence of intact wild vegetation have forced the herd to increasingly depend on

cultivated areas, leading to frequent confrontations with local communities. This poses significant conservation challenges for elephants in the region.

To ensure the long-term survival of this elephant population – including the unique white individual – it is essential to monitor herd movements, feeding behaviour, and interactions with local communities through field surveys and camera-trapping. The data collected will guide habitat management and conflict mitigation strategies for the herd. Moreover, active engagement of local communities in conservation and conflict mitigation efforts will be critical for ensuring the survival of this isolated herd. The unique nature of this animal could be used to generate public interest and further elephant conservation in Bangladesh.

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