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NOTE

THE IMPORTANCE OF TRANS-BOUNDARY CONSERVATION OF THE ASIATIC ELEPHANT *Elephas maximus* IN PATHARIA HILLS RESERVE FOREST, NORTHEASTERN INDIA

Nazimur Rahman Talukdar, Parthankar Choudhury & Rofik Ahmed Barbhuiya

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The 4,156km international border (IB) with Bangladesh spreads across five different states of India (West Bengal, 2217km; Meghalaya, 443km; Assam 262km; Mizoram 443km; and Tripura, 180km). The Karimganj District of Assam has 92km IB with Bangladesh of which 41km is riverine (Jamwal 2004). The remaining 51km lies in the western part of the district and a good portion shares the border through the Patharia Hills Reserve Forest (RF). The Patharia Hills RF (24.6231°N & 92.250°E) occupies an area of 76.47km² and is situated on the western side of Karimganj District of Assam and the eastern side of Sylhet District of Bangladesh. The headquarters of Karimganj District is located on the north of the RF and Tripura State on the south. The topography of the RF is very diverse, ranging from hilly areas to plain lands and water bodies. Average annual rainfall (>3,000mm) and a moderate climate support enormous flora and fauna in the area. Important plant species found in the RF are *Albizia* sp., *Artocarpus* sp., *Bombax ceiba*, *Canarium bengalense*, *Caryotaurens*, *Cassia fistula*, *Cinnamomum tamala*, *Erythrina variegata*, *Ficus bengalensis*, *Gmelina arborea*, *Maniltoa polyandra*, *Neolamarckia cadamba*, *Sapium* sp., *Streblus asper*, *Tectona grandis*, *Terminalia chebula*, *Terminalia arjuna*, *Toona ciliata*, *Vitex* sp., and *Zanthoxylum rhetsa*. Important wild fauna include eight primate species, viz., *Macaca mulatta*, *M. assamensis*, *M. arctoides*, *M. leonina*, *Nycticebus bengalensis*, *Trachypithecus phayrei*, *Trachypithecus pileatus*, *Hoolock hoolock*, and *Elephas maximus*, besides many carnivores and rodents (Talukdar & Choudhury 2017a).

THE IMPORTANCE OF TRANS-BOUNDARY CONSERVATION OF THE ASIATIC ELEPHANT *Elephas maximus* IN PATHARIA HILLS RESERVE FOREST, NORTHEASTERN INDIA

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The RF is the last resort of the wild elephants of the region along with Katakali RF. Currently, six female wild elephants are surviving in the RF and they face many anthropogenic threats (Talukdar & Choudhury 2017b). Besides, in the absence of a male elephant in the herd, their survival in the area in future is at stake (Talukdar & Choudhury 2017a). It was observed that after the death of one female elephant through electrocution in August 2017 in Medli Tea Estate (Karimganj, Assam), they are now divided into two small herds, three in each group. Though the original herd has now been segregated into two, it has been observed that one herd always follows the other. The sudden behavioral changes may be due to accidental shock and an act of defense mechanism.

They stay on both sides of the forest (i.e., Indian as well as Bangladesh portion) and cross the border frequently. The elephants have broken border fences on their corridor and use the routes as their migratory

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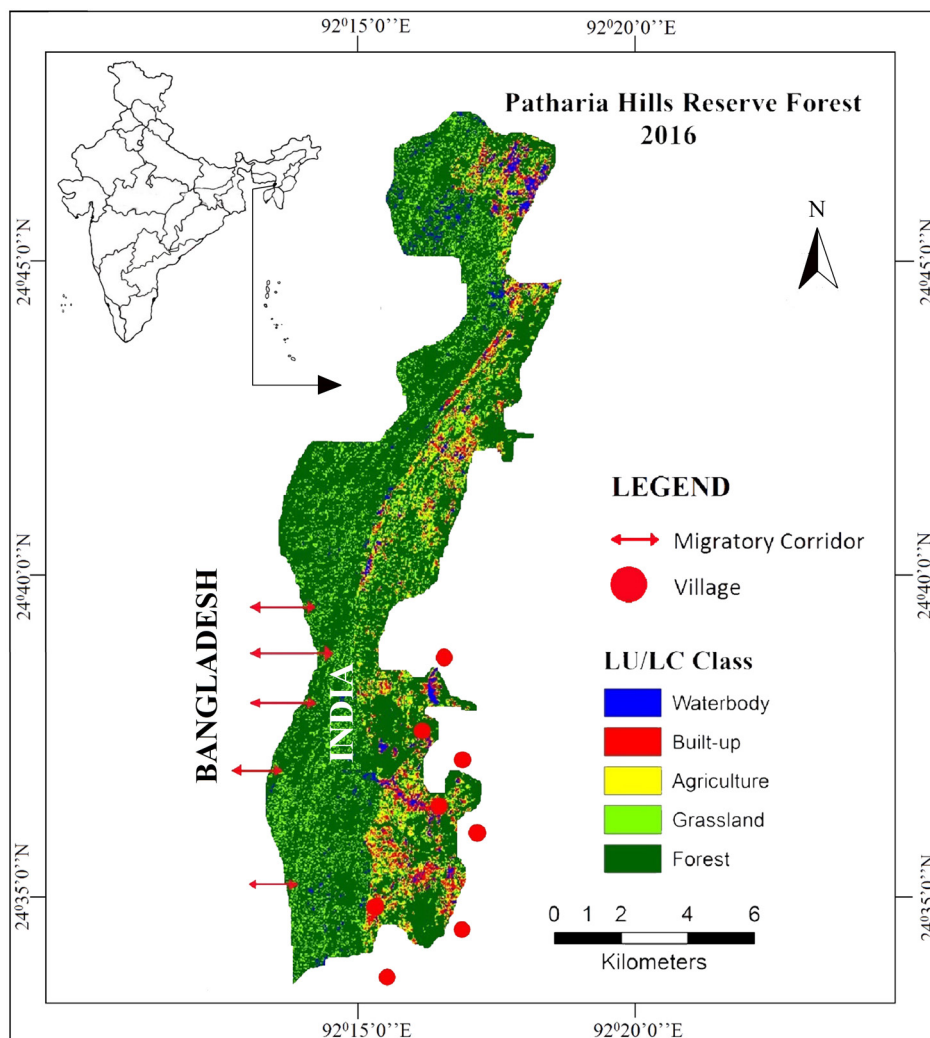


Figure 1. Migratory corridor and villages adjoining the Patharia Hills Reserve Forest.

corridor. They are limited to the southern part of the RF (Fig. 1) as habitats in other parts have been degraded due to human encroachment. Villagers often observe the wild elephants (Image 1) in winter but in summer their presence is seldom witnessed. During summer (April-July), they mostly stay within the Bangladesh territory of the RF, however, recently it has been observed that also during summer they use the corridor for a sojourn in Bangladesh territory and then come back. The shifting pattern of migration may be due to the food shortage on both sides as anthropogenic activities have increased (Talukdar & Choudhury 2017a). In the winter season (November and December), they prefer to stay on the Indian side in the forest patches of neighboring tea estates (Medli TE, Putni TE, Tirmiti TE, and Sephinjuri TE) at dusk and visit the paddy fields in Kurti and Putni at dawn. Villages like Mongool, Lathitilla, Dumabaroi, Adamtila, Bhubrighat, Chambarbri, Putni are located adjacent to the southern part of the RF and hence all

these villages are in human-elephant interaction prone areas during the summer season (Fig. 1). While discussing the issue with the present BSF commandant of Sonatola, we were told that they now try their best to ensure safe movement of the elephants across the border and they have no plans to repair the areas that were previously damaged by elephants, as these pachyderms are not creating any problem. It is our suggestion to equip the BSF staff with the tranquilizer gun for use in incidences of retaliation.

Though the elephants do not affect the local people directly, yet the villagers are scared of them. Crop raiding is the major issue that has led to the formation of a negative attitude towards conservation of the species among victims. After interviewing the local people, it was found that they have no problem improving the reserve forest but need protection from crop raiding and other damaging activities by the elephants. It has been our observation that the majority of the people



Image 1. Elephants in Patharia Hills Reserve Forest

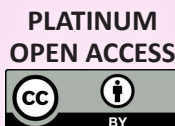
have a positive attitude on the conservation of the elephant. Some of them also suggested that low voltage electric fences might be helpful in minimizing negative interactions. The villagers also sought strong action against illegal activities within the forest (Talukdar & Choudhury in press). They strongly believe that if stern action is not taken up by the government and the forest department, someday or other the forest may lose its identity.

Local people have to be made more aware of co-existing, alternative livelihood and value-added services outside the forest. Training and capacity building of local youth on precautionary measures for reducing elephant incidents is of utmost importance. It is the need of the hour that the reserve forest is elevated as a wildlife sanctuary, the activities within the RF be stopped, eviction of forest dwellers and rehabilitation into other government lands may be done. Wildlife Trust of India and other organizations working in the field of conservation may take initiatives to conserve the wild fauna of the area as taken up in other conservation priority areas. A large portion of the Patharia Hills RF has been subsumed under the territory of the neighboring country, (i.e., Bangladesh). Thus, initiating any conservation action for the area is comparatively difficult, as this deserves joint initiatives of both the countries. So, in order to better protect the wildlife and

their habitats, the two countries can join hands as has been done for biodiversity conservation in Sundarban ('the MOU', Governments of India and Bangladesh 2011a,b). It is time if conservation action is not taken up right now, the RF will be a dense human settlement area without any trace of wildlife in the near future.

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