## RECORDS OF GREATER ONE-HORNED RHINOCEROS RHINOCEROS UNICORNIS (FAMILY RHINOCEROTIDAE) IN HILLY TERRAIN<sup>1</sup>

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The Great Indian or Greater One-horned Rhinoceros *Rhinoceros unicornis* Linnaeus (Family Rhinocerotidae) is an inhabitant of flat terrain, in grassy tracts interspersed with woodland and adequate water supply (Prater 1980). Its present stronghold is the Brahmaputra floodplains in Assam and northern West Bengal, and Terai-Bhabar plains of Nepal, Uttar Pradesh, Assam, and northern West Bengal (Choudhury 2016). This note discusses the elevation factor and hilly terrain influencing the occurrence of this species.

The elevation of Brahmaputra floodplains in Assam ranges from 30 m above msl near Dhubri to 40 m above msl at Kaziranga, and 120 m above msl near Sadiya in Tinsukia district. The elevation in Terai-Bhabar tract in Assam ranges from 55 m to 150 m, especially in Manas National Park from where the rhinos used to visit salt licks at 200–250 m above msl in the Himalayan foothills in Bhutan. In the Terai-Bhabar tract in Nepal, especially at Chitwan National Park, the elevation is 200–240 m above msl. There are historical records of the rhinoceros from near Aligarh and Sambhal in Uttar Pradesh, and near Peshawar in Khyber Pakhtunkhwa of Pakistan (Choudhury 1985; Rookmaaker 1980).

The terrain in Aligarh and Sambhal is flat, being part of the Gangetic plain, but as they are far from sea the elevations range from 175–205 m above msl. Peshawar is at 330 m above msl. Although Khyber Pakhtunkhwa, earlier known as North-West Frontier Province, is mountainous being part of the Hindu Kush Mountains, the areas where rhino occurred were probably plains at the edge of the mountains, as the elevation of Peshawar indicates.

In north-east India, the rhinos from Kaziranga National Park occasionally stray to the Himalayan foothills in Arunachal Pradesh (Choudhury 1997), but generally remain below 250 m above msl in the foothills. In Pabitora Wildlife Sanctuary, immature rhinos occasionally climb up the hilly and rugged rocky terrain of Burha Mayong Hills, which is also part of the sanctuary. I observed and photographed an immature rhino getting killed when it got stuck between large rocks. Adult rhinos also occasionally climb, but they follow certain trails where such accidents can be avoided.

In the highlands of Karbi plateau, many rhinos take shelter during floods when Kaziranga NP becomes inundated. They climb up hilly slopes through suitable trails, and frequent elevations from 80 to 300 m. There are reports of rhino climbing up to higher elevations, but these could not be authenticated. A skeleton of a rhino recovered near Haitha Pahar in Karbi Anglong district on November 11, 2012 (Choudhury 2013) had been poached by some extremists a year earlier, in the same month (as confessed by the poachers). The elevation of this site was 815 m above msl, so far the highest for the species. However, this November record is interesting as it indicates that even during the dry season with no flooding in Kaziranga, a few rhinos stray into Karbi Anglong. Alternatively, the rhino may have stayed during the monsoon floods in July-August (which extend rarely to September, and exceptionally in October), but was unable to come down. In 2012, there was no late high flood extending to September-October, so it is likely that the rhino climbed the hills even when Kaziranga was not flooded.

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