

RHINO POACHING IN JALDAPARA WILDLIFE SANCTUARY, NORTH BENGAL, INDIA

by S. Mukherjee and S. Sengupta

The Great Indian One-horned rhinoceros (*Rhinoceros unicornis*) was once widely distributed from the Hindukush Mountain Range (Pakistan) to Myanmar along the foothills of the Himalayas and the Gangetic and Brahmaputra flood plains. Due to a number of factors such as hunting (and later poaching), habitat destruction and fragmentation, anthropogenic pressures, encroaching of existing grasslands converted for cultivation in order to fulfill the demands of an expanding human population, unsystematic grassland burning, livestock grazing, and expansion of tea gardens, rhinos have been wiped out from most of their former range of distribution. Now the rhino population is restricted to a few pockets in Assam, West Bengal, Nepal and a part of Bhutan.

In West Bengal, two isolated rhino populations are restricted to the northern sub-Himalayan area in Jaldapara Wildlife Sanctuary (WLS) and Gorumara National Park (NP). Jaldapara WLS harbors a population of around 40 rhinos. This population has been subject to great fluctuations over the years. In the 1920s there were about 200 rhinos in Jaldapara (including Patakhowa). This number had dropped to 40-50 by 1932. In the 1960s the population rose to 70+ animals, but during the 1970s and 1980s the population ranged between 19-27 animals.

Rhinos have always been a target for hunters and later poachers for their horns, which are believed to have aphrodisiacal properties despite scientific evidence to the contrary. Jaldapara rhinos are no exception. The flourishing population of 76 rhinos in 1966-67 had drastically declined to 14 by 1980 due to poaching. Since then, the population has gradually risen to its present strength of 42 rhinos due to the constant endeavors of the

forest staff and proper scientific management of the Sanctuary. However, the rhinos still remain a main target for the poachers.

Up until about 1993, the poachers in Jaldapara mostly used shotguns to kill the animals, though other methods such as electrocution and the pit method are fairly commonly used in Kaziranga NP (Assam). Due to the peculiar shape of Jaldapara WLS, and the type of forest found there, poaching was done using guns. Now, however, the poachers have started using poison to kill rhinos. This was earlier reported by Martin (1992) in the Royal Chitwan NP (Nepal) in the poaching of rhinos and tigers. Two such poisoning cases have been reported in Jaldapara WLS as follows:

Case 1: On 6 December 1992, a sub-adult male rhinoceros was found dead at Torsa II compartment, Moiradanga beat, Jaldapara West Range of Jaldapara WLS, apparently without any injury and with its horn missing. As the carcass was already decomposed when detected, a detailed study could not be undertaken. However, a few seeds of gram were recovered from its stomach which might have been poisoned; however, this was not conclusively proved.

Case 2: On 30 March 1996, the beat officer of Moiradanga found one female rhinoceros lying dead in Torsa II compartment, Purundibari area. There were no bullet wounds or any other injury marks, nor did the animal appear to have put up a struggle before dying. It was in sternal recumbency with forelegs folded and hindlegs slightly stretched. Natural death, though peculiar, could not be ruled out. Blood collected from the ear pinna was sent for testing for anthrax spores or other organisms before opening up the body for a post-mortem. However, all the tests were negative.

The surrounding area was searched thoroughly when another suspicious incident was observed on the night of 30/31 March. Four rhinos were found congregated near the plantation area of Torsa II compartment and all of them were repeatedly eating mud from a single spot. The staff tried to drive them away with the help of departmental elephants, but the rhinos moved away only reluctantly, coming back to the spot again and again. The area was then cordoned off, burnt thoroughly, and the animals were not allowed to visit the place again. A soil sample was collected and sent to the Forensic Science Laboratory of the Government of West Bengal, Calcutta. Another soil sample was mixed with rice and fed to a stray dog, which eventually died.

After conducting the post-mortem examination in detail, the different visceral parts of the dead rhinoceros were also sent to the Forensic Science Laboratory, along with samples from the dog. Reports of both the soil sample and the visceral samples showed the presence of a pesticide called Endosulfan. Endosulfan is an organophosphate compound sold under the trade name Thiodine, and is commonly used in tea gardens and also by local farmers. There have been reported incidences of cattle deaths by accidental consumption of Thiodine. However, this was the first recorded case of applying Thiodine to wild animals, especially rhinoceros, for poaching in West Bengal. Endosulfan is a deadly poison which

acts both on the circulatory system by breaking down the blood cells and on the central nervous system, where it inhibits acetylcholinesterase and thereby disrupts synaptic transmission.

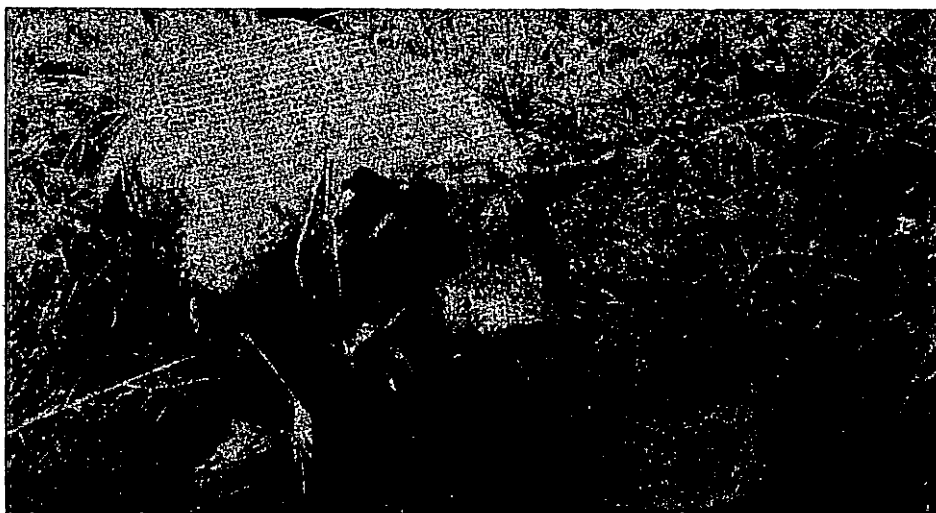
A rhinoceros, being a herbivorous animal, requires supplements of salt which is not available in required quantities from its normal diet. They are therefore in the habit of licking mud, which contains naturally available salt, and the poachers are well aware of this and take advantage of it by mixing the poison with salt and mud.

In terms of wildlife management, and especially in view of the management of the ever-dwindling population of Great Indian One-horned rhinoceros, it is a highly alarming trend when miscreants continue to invent new, swift and silent methods of poaching.

References

Martin, E.B. 1992. **The poisoning of rhinos and tigers in Nepal.** *Oryx* 26(2):82-86.

Authors' addresses: S. Mukherjee, c/o Principal Chief Conservator of Forests, West Bengal, P-16, India Exchange Place Extension, New C.I.T. Building, 3rd Floor, Calcutta 700073, India; Subhankar Sengupta, Asst. Wildlife Warden, Divisional Forest Office, Wildlife Division II, Aranya Bhaban, 3rd Floor, Hakimpara (Near Jubilee Park), P.O. & Dist. Jalpaiguri, W.B. 735101, India.



Rhino carcass at Torsa II Compartment, Jaldapara Wildlife Sanctuary