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GASTRO - INTESTINAL PARASITES IN FREE LIVING ONE HORNED INDIAN RHINOCEROSES (*RHINOCEROS UNICORNIS*) AT THE RAJIV GANDHI WILDLIFE SANCTUARY, ASSAM, INDIA

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Occurence of gastro-intestinal parasites in captive Rhinoceroses *(Rhinoceros unicornis)* have been reviewed by Silberman and Fulton (1979) and more recently by Miller (1992). Barring the work of Chakravorty and Islam (1993), there is no field survey report of gastro-intestinal helminths of free living one-horned Indian rhinoceros. Present study records some gastro-intestinal parasites of free living rhinoceroses at the Rajiv Gandhi Wildlife Sanctuary, Assam, India.

The study area was situated on the northern bank of the river Brahmaputra (Lat. 26°30' - 26°35'N, Long 92°15'- 92°22'E) which comprised a total area of 75 square kilometres (Map). The terrain is of alluvial flood plain of the river Brahmaputra containing deciduous forests, alluvival grass lands, and swampy areas with 97 rhinoceroses (Bankhowal, 1993). Since the Indian one-horned rhinoceros defecate in a well defined area within their territory, fresh faecal samples were easily collected at random from 40 individual dung heaps from different parts of the study area in 2 consecutive days during the month of December, 1993. The materials were processed (Soulsby, 1982) in the laboratory and examined under a light microscope.

All the 40 samples collected were found to be positive for parasitic infection (Table-1). The parasites recorded were paramphistome and *Strongyle* sps. In only one sample with moderate degree of coccidian oocyst could be encountered.

There is scanty report on the paramphistome infection in rhinoceros (Chakravorty, 1991; Chakravorty and Islam, 1993). However, *Strongyle* infection in rhinoceros have been reported by Silberman and Fulton (1979), Chakravorty (1991) and Chakravorty and Islam (1993). An unidentified coccidian oocyst has also been reported earlier (Chakravorty and Islam, 1993).

In the present study, samples were collected at random and all were positive for helminthic infection. The average load of infection was of moderate type except in a few cases where heavy infections were recorded. Therefore, it can be safely concluded that, the central area of the Rajiv Gandhi Wildlife Sanctuary is endemic for helminths parasitic on free living rhino. The numerous wet lands inside the sanctuary probably maintains an ecologically viable habitat for the propagation of necessary snail intermediate hosts of paramphistomes. The coprophagus habit of the Indian one-horned rhinoceros (Buechner and Mackley, 1975, Bhuyan, 1993) might play an important role in acquiring the strongyle infection (Islam, 1994). Field study of the terrian with satellite remote sensed data and ecology of the wet lands of the sanctuary is under investigation (Islam, 1994). This might bring into light some new informations on the parasitic infections of the mammals of this sanctuary.

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Table: I
Prevalence of gastro-intestinal parasites in free living Indian one-horned India rhinoceros at the Rajiv Gandhi Wildlife Sanctuary, Assam, India

Collection sites	No. of dung samples	Ova/oocysts encountered	Load of infection
Near Satismalu	5	*Strongyle* Sps. Paramphistome	++ ++
Near Satismalu	15	*Strongyle* Sps. Paramphistome	++ +++
Nichlamari	10	*Strongyle* Sps. Paramphistome	++ ++
Near Orang (old)	10	*Strongyle* sps. Paramphistome Coccidian oocyst	 ++ +

Total : 40 (All samples were positive)
* + : light : ++ : moderate : +++ : heavy