

- 1 J. Anderson, Catalogue of Mammalia in the Indian Museum, Part I, Indian Mus. (Calcutta), 1881.
- 2 W. T. Blanford, The Fauna of British India, Mammalia, Taylor & Francis (London), 1888-91.
- 3 E. Blyth, Catalogue of the Mammalia in the Museum of Asiatic Society, Asiatic Society (Calcutta), 1863.
- 4 J. R. Ellerman, The Fauna of India, Mammalia, Vol. 3, Rodentia, Part I & II, Govt. of India (Delhi), 1963.
- 5 J. R. Ellerman and T. C. S. Morrison-Scott, A checklist of Palaearctic and Indian mammals. Brit. Mus. (London), 1951.
- 6 R. I. Pocock, The Fauna of British India, Mammalia, Vol. I & II, Taylor & Francis (London), 1939, 1941.
- 7 W. L. Sclater, Catalogue of Mammalia in the Indian Museum, Part II, Indian Mus. (Calcutta), 1891.
- 8 R. C. Wroughton, *J. Bombay nat. Hist. Soc.*, 25, 547-598; 26, 19-58, 333-379, 776-802, 955-967; 27, 57-85, 301-313, 1918-1920.

**Remains of the great One-horned Rhinoceros, *Rhinoceros unicornis* Linnaeus from Rajasthan**

During the excavation at Kalibangan, Ganganagar District, Rajasthan, by the Archaeological Survey of India in the year 1965, a few skeletal fragments of the Great One-horned Rhinoceros, *Rhinoceros unicornis* Linnaeus, were found. The age of these fragments is about 3500 to 4000 years. At present *R. unicornis* is restricted to parts of Nepal, West Bengal and Assam, but formerly it was extensively distributed in the Indian subcontinent. According to Blanford<sup>2</sup>, this species was common in the Punjab as far west as Peshawar during Emperor Babur's (1505-1530 A.D.) days, and up to 1850, it inhabited the grass-jungles on the Ganges at the north end of the Rajmahal Hills in Bihar. Bhaduri, Tiwari and Biswas<sup>1</sup> stated that Babur frequently hunted the rhino in the jungle of Peshawar and Hashnagar. Prasad<sup>5</sup> and Nath<sup>3</sup> recorded the

remains of this species from the prehistoric sites of Harappa, Montgomery District, Pakistan (2500-1500 B.C.) and Lothal, Ahmedabad District, Gujarat (2000-1200 B.C.) respectively. Nath<sup>4</sup> in connection with the study of the role of animal remains in the early prehistoric cultures of India casually mentioned about the remains of this species from Rajasthan based on a part of the present material. The occurrence of the remains of this species in Rajasthan, is therefore, quite interesting and supports the idea of its extensive distribution in the earlier days. Moreover, since *R. unicornis* generally inhabits swampy land mixed with forest, its occurrence in Rajasthan strengthens the geological evidence that the desert conditions of this area is of recent origin.

Altogether four fragments of bones detailed below were found.

Locus XB. 16 qd. 2; stratum 3; distal fragment of left tibia.

Locus XA. 17; stratum 15; distal fragment of right humerus.

Locus Cl. qd. 1; stratum 1A; first phalanx of 4th metatarsal of both right and left feet.

Locus B5. qd. 1; stratum 3; third metatarsal of right foot.

All the fragments are structurally similar to the bones of the full grown modern female specimen from West Bengal present in the Zoological Survey of India but are slightly larger in size (Table 1). It is also found that the fragment of scapula from Harappa and that of mandible from Lothal are larger than those of the modern specimen (Table 1). Whether *R. unicornis* found in the western part of Indian subcontinent during the prehistoric period was larger than the modern *R. unicornis* of the eastern part or not could be ascertained only when sufficient comparative material will be available.

TABLE I  
Some skeletal measurements (in mm) of *Rhinoceros unicornis* from different localities

	Kalibangan	Harappa	Lothal	Modern specimen from West Bengal
Distal diameter of humerus	126	x	x	115
Distal diameter of tibia	125	x	x	113
Length of third metatarsal	190	x	x	147
Length of scapula	x	ca. 470	x	460
Height of mandible at the posterior end	x	x	266	264

S. Banerjee  
S. Chakraborty  
Zoological Survey of India,  
8, Lindsay Street,  
Calcutta-16  
Received 7 December, 1972

- 1 J. L. Bhaduri, K. K. Tiwari, Biswamoy Biswas, Zoology: In A concise history of science in India. Ed. D. M. Bose, 1972, p. 407 (Indian National Science Academy, New Delhi).
- 2 W. T. Blanford, The fauna of British India including Ceylon and Burma, 1891, p. 473 (Taylor and Francis, London).
- 3 B. Nath, *Rec. zool. Surv. India*, 61, 18, 1968.
- 4 B. Nath, *Indian Mus. Bull.*, Calcutta, 4, 107, 1939.
- 5 B. Prasad, *Mem. Archaeol. Surv. India*, Delhi, 51, 30, 1936.

**A study on a human trait (Adherent ear-lobe)**

A study was undertaken to determine the frequency of a hereditary trait, the adherent

ear-lobe, among the Nepalees of Darjeeling. The subjects belonged to the varied caste groups as well as to different religious groups prevalent among the Nepalees. Some of the subjects hailed from towns like Lebong, Ghoom and Kalimpong and some from countries like Sikkim and Nepal. The result of the study has been shown in table 1.

This study revealed some facts about the 'penetrance' and 'expressivity' of the allele responsible for the trait. The trait has been described to be recessive, and dependent on a single pair of genes.<sup>1,2</sup> In that case expected frequency of the trait is 33.33%. Present study recorded the frequency of the trait in the population under survey to be 29.55% (Table I). This shows that the 'penetrance' of the allele is very high (88.65%), as is evidenced from Table II.

The allele under study has also been found

TABLE I  
Frequency of 'adherent ear-lobe' among the Nepalees:

No. of males examined	No. of females examined	Total	No. of individuals with the trait	Frequency of the trait in the population
365	156	521	154	29.55%

TABLE II  
Showing very high rate of 'penetrance' of the allele

Expected frequency (A)	Obtained frequency (B)	% of 'obtained frequency in relation to the 'expected frequency'
33.33%	29.55%	$\frac{B}{A} \times 100 = 88.65\%$