

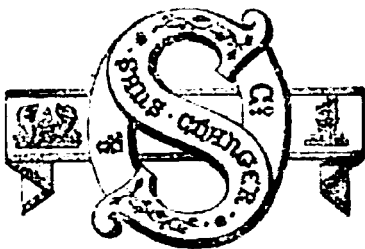
ON THE
EXTENT AND AIMS
OF
A NATIONAL MUSEUM
OF
NATURAL HISTORY.

INCLUDING

THE SUBSTANCE OF A DISCOURSE ON THAT SUBJECT, DELIVERED
AT THE ROYAL INSTITUTION OF GREAT BRITAIN, ON THE
EVENING OF FRIDAY, APRIL 26, 1861.

By PROFESSOR OWEN, F.R.S..

FOREIGN ASSOCIATE OF THE INSTITUTE OF FRANCE, ETC.



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function as an instrument in the advancement of natural science.

Next in size to the elephants in the Mammalian class come the Rhinoceroses; like the elephants they are now much reduced in number and restricted in place as compared with former geological periods.

Four kinds of Rhinoceros have been specified in Africa, two of the white kind and two of the black kind; all of these possess two horns. There is also a two-horned rhinoceros in Sumatra, and the rhinoceros of continental Asia is one-horned, as is that of the island of Java and of Borneo. Of these seven or eight species, which, it may be asked, should be selected as the "type-rhinoceros"? Here the same difficulty meets the museum officer as in the case of the elephants. The Asiatic rhinoceroses adhere more closely by their dentition to the general type, the African kinds depart from it by the suppression of the incisive teeth. In this respect, and in their two horns, both of which are single, symmetrical, and medial, the African may be said to be most rhinocerotie; but the Asiatic species is

most so in regard to the thickness and peculiar folds of its tuberous integument. How, then, can a single typical example be selected from this series? It is less difficult to choose the species which might be represented by characteristic parts preserved in store—that is to say, one would select one of the two white African kinds and one of the two black African kinds of rhinoceros: but five out of the seven or eight known rhinoceroses ought to be represented by stuffed examples of full-grown males, with the dried heads of the full-grown females to show the sexual character of the horns.

The present state of doubt or ignorance as to the affinities of the continental and insular rhinoceroses of Asia, and their relations to each other, is owing chiefly to the want of any provision for displaying the specimens in the museum of the nation which rules, or mainly influences, the tropical regions inhabited by those singular quadrupeds.*

* As illustrative of how closely the progress of accurate knowledge of species depends on the proper extent of exhibition and supply of specimens in a National Museum of Natural History, I

The two-horned rhinoceros of Sumatra offers, of all living rhinoceroses, the nearest resemblance to

subjoin a letter which my former ' Reports ' on this subject have called forth.

" MY DEAR OWEN,

Calcutta, April 8, 1862.

" It is not very often that I indulge in a letter to you, but I am very sure that the following discoveries respecting the distribution of the Asiatic living species of rhinoceros will interest you.

" In your lecture and evidence regarding a National Museum of Natural History, you refer to *Rh. sondaicus* and *Rh. sumatranus* as if each was peculiar to the island from which it takes its name; which is very far from being the case.

" The true *Rh. indicus* would seem to be confined to the *tarai* region at the foot of the Himalayas and valley of Adém, *i. e.*, of the Bráhmáputra River.

" The single-horned rhinoceros of the Rajmáhl hills in Bengal (where it is now verging on extirpation), of the Bengal Sandarbáns, of the Indo-Chinese countries and Himalayan peninsula, is the *Rhinoceros sondaicus* of Java and Borneo.

" Still more common in Burmá is the *Rh. sumatranus*, which extends at least as high as the latitude of Ramri Island, on the Yamadouny range which separates the province of Arakan from that of Pegu (or the valley of the Irawádi). This species exists, also, in the Malayan peninsula; but, in the Archipelago, appears to be peculiar to Sumatra.

" What the particular species might have been that was formerly hunted by the Mogul Emperor Báber on the banks of the Indus, may yet perhaps be ascertained by the discovery of bones buried in the alluvium of that river.

" All three species vary a good deal in the form of skull; each showing a broad and a narrow type, with intermediate gradations. The skulls of *Rhinoceros sondaicus* and *Rhinoceros sumatranus* have never, hitherto, been adequately represented; so that the contrast between them and the skulls of *Rhinoceros indicus* and *Rhinoceros sondaicus* as figured by Cuvier and De Blainville, is considerably greater than exists in fair average specimens.

" However

certain fossil kinds found in Europe. When half-grown, this rhinoceros retains a conspicuous coat of short, straight, bristly hair. It is generally known that one, at least, of the extinct European rhinoceroses was covered with hair when full-grown. Such are the interesting facts and relations that make it desirable to preserve and exhibit specimens of the young as well as old individuals of some of the largest species of quadrupeds. What I have said of the Rhinoceros applies to the Elephant. Bishop Heber's first announcement of the young hairy elephant which he met with in the Himalaya

“However they may vary in breadth, the skull of *Rh. indicus*, (adult) averages 2 feet in length, measured by calipers from the middle of the occiput to the tips of the united nasals; that of *Lih. sondaicus* does not exceed 1½ feet.

“I very greatly suspect that the large rhinoceros that was so long in the Zoological Gardens, and which you described (and which was captured in the province of Arakan), was *sondaicus*, and not *indicus*, according to my vivid recollection of the beast, which was not nearly so large as the specimens of true *indicus* which I have seen in this country. The measurement of the skull would at once decide this matter.

“Of course the variation in the form of the skull of the living Asiatic species should preach a caution to Palaeontologists. In my forthcoming Memoir on the subject (now with the printer) I have amply illustrated these variations.

“Yours over sincerely,

“E. BLYTH.”