

THE
ZOOLOGIST:
A
POPULAR MISCELLANY
OF
NATURAL HISTORY.

CONDUCTED BY
EDWARD NEWMAN, F.L.S., F.Z.S.,
MEMB. IMP. L.-C. ACAD.

SECOND SERIES.—VOLUME THE SEVENTH.
(OR THIRTIETH FROM THE COMMENCEMENT.)



LONDON:
JOHN VAN VOORST, 1, PATERNOSTER ROW.

M.DCCC.LXXII.

also—chiefly thrushes' and blackbirds'—I have been struck with the mysterious disappearance of some (but not all) of the eggs or young birds. Jays may be partly to blame, but I feel sure that in some instances they have been removed by the old birds themselves. Owing to these causes not more than one nest in twelve has come to maturity.—G.

Cromer Lighthouse.—On the 1st three starlings flew against the lighthouse, and one titlark; wind N.W., gloomy and misty. On the 6th a wheatear; wind N.N.E., overcast and gloomy. On the 7th a thrush; wind S.W. On the 27th four greater whitethroats.—G.

Heron.—On the 10th I found some of the young in the nests at the Earlham heronry, hatched. There are twenty-six nests this year.—G.

Lesser Redpole.—A pair seen on the 10th at Northrepps.—G.

Wood Pigeon.—On the 25th I saw a nest only four and a half feet from the ground. The eggs were slightly sat on; one of them had a soft end.—G.

Wren.—April 26th. Of all the nests I have found this year I have not seen one with eggs in.—G.

Asiatic Rhinoceroses. By E. BLYTH, Esq.

You state (Zool. S. S. 3060) that you are unaware that the lesser one-horned rhinoceros (*Rhinoceros sondaicus*) has ever been brought alive to Europe. Allow me to inform you, therefore, that a specimen of it existed for many years in this country, of which two figures from life are given in the volume on Pachydermata in Jardine's 'Naturalist's Library,' where it is supposed to be the sole Indian rhinoceros, so far as was then known; as distinguished from the one at that time and long subsequently imagined to be peculiar to the island of Java. A skeleton of probably the same individual (identified by myself as that of *R. sondaicus*) may be seen in the Museum of Guy's Hospital in Southwark.

The general resemblance between the two species of one-horned rhinoceros is so considerable that ordinary sportsmen do not distinguish them apart; but there are constant distinctions by which they may be readily discriminated at any age. The folds of the skin are much the same, with the exception that *R. sondaicus* has

invariably a very conspicuous fold crossing the base of the neck above, which does not cross the base of the neck in the other, and the polygonal facets of the skin are small and of uniform size throughout, instead of forming huge bosses on the fore-quarters and haunches, as seen in the superb pair of *R. indicus* (*R. unicornis*) now living in the Regent's Park.

The dimensions of these animals, as usually assigned by sportsmen, are those of the slain beast measured as it lay; the height being taken over the curve of the body, which adds a few inches to the real stature as the animal stood when alive. Thus the heights of the two species are generally given as respectively six feet and five feet at the shoulder, which must be understood to signify five and a half feet and four and a half feet, or thereabouts. If with a fairly-developed horn the lower of these heights is assigned, we may infer the particular species to be *R. sondaicus*, which in size is about midway intermediate between *R. indicus* and *R. sumatranus*. Dr. Horsfield indeed states that the Javanese individual figured and described by him subsequently attained to the height of five feet seven inches, which I cannot but regard as a mistake for four feet seven inches. A rhinoceros killed on the Garrow Hills is described to have a height of four feet five inches.* "It proved to be a male, with a pretty large horn, and was a very powerful animal;" whilst other rhinoceroses killed in the same tract of territory are described as exceeding six feet in height, indicative of the great *R. indicus*.

In Williamson's 'Oriental Field Sports' (published in 1807), the author fails, as usual, to discriminate the two species apart. His only figure (not a good one) is that of a young *R. indicus*; but he states that "It is very rarely that the rhinoceros has been found equal to six feet in height" (*i. e.* *R. indicus*); "he is ordinarily not more than four and a half to five feet" (*i. e.* *R. sondaicus*). I judge that the latter is the only one which he knew of as a wild animal, while his figure was probably taken from a young example of the large species that had been brought down from beyond the area of his personal observations, as they are not unfrequently brought down the Bráhmáputra from Assam at the present day. Sixty-five or more years ago, Capt. Williamson remarked that "the rhinoceros is seldom to be found on the western side of the

* 'Bengal Sporting Magazine,' 1837, p. 276.

Ganges, though the jungles there are fully competent to bear abundant shelter; nor, indeed," he adds, "has an elephant ever been seen in its wild state but to the eastward, and far distant from the banks of that noble river."

The geographic range of the great one-horned species appears to be very limited, it being chiefly confined to the base of the eastern Himalaya, but extending across the valley of Assam to the hills immediately on its southern border, where it co-exists with *R. sondaicus*, if not also with *R. sumatranus*. I was assured by an indigo-planter that he had seen in Lower Assam the dried head of a two-horned rhinoceros, which was there considered an exceedingly great rarity.

The one-horned rhinoceros of the Sundarbáns of Lower Bengal is *R. sondaicus* and not *R. indicus*. There is a skeleton of the former in the Calcutta Government Museum, being that of an individual which was killed in the Jessore district; and the skull of a Sundarbán specimen was (if it be not still) in the possession of Mr. Arthur Grote, late of the Bengal C.S., which was obtained about 1860, and is indubitably that of *R. sondaicus*, as compared with other skulls of the same species received from the Tenasserim provinces and from Java. Upon showing a fine series of skulls of the two one-horned species to a gentleman who had killed as many as nine rhinoceroses in the southern half of the Malayan peninsula, he had no hesitation in identifying the only kind with which he had long been familiar as the *R. sondaicus*.

The *R. indicus* is particularly numerous in the valley of Assam, from which province young examples are not unfrequently brought to Calcutta for sale, and are thence exported to Europe and America. The other one-horned species, though inhabiting so much nearer, is hardly ever brought for sale to Calcutta. The example of it formerly exhibited in this country (as already mentioned) was "a male, and was brought from Bengal, having been for some time kept in the gardens of the Governor-General in Calcutta" (*i. e.* in Barrackpore Park). "He has been sixteen months in Britain," it is added, "during which time he has visited London, Glasgow and Edinburgh, and is at present" (*circa* 1835) "the property of the proprietors of the Zoological Garden at Liverpool. It is stated to be six years' old, and to weigh two tons; is a beautiful specimen, and appears to be in the highest state of health. Height, from the highest part of the back, four feet eight inches." For further

details the reader is referred to the volume of the 'Naturalist's Library.' I should estimate the weight of the male *R. indicus* in the London Zoological Gardens to be somewhat about three tons and a half.

Dr. Jerdon remarks (in his 'Mammals of India') that *R. sondaicus* "is found at present in the Bengal Sunderbáns, and a very few individuals are stated to occur in the forest tract along the Máhánuddee river, and extending northwards towards Midnapore; also on the northern edge of the Rájmahál Hills near the Ganges. Several have been killed quite recently," he adds, "within a few miles of Calcutta." In the early part of the sixteenth century of our era, Báber (great-grandson of Timor Lang, or Tamerlane, and founder of the dynasty of the Great Mogul, which we have seen extinguished in our own time) mentions incidentally the occurrence of the rhinoceros, the wild buffalo and the lion in the neighbourhood of Benáres, and wild elephants in the vicinity of Chunar. In his notice of the animals peculiar to Hindustán, the royal author remarks:—"The rhinoceros is another. This also is a huge animal. * * * It has a single horn over its nose upwards of a span in length; but I never saw one of two spans. * * * Its hide is very thick. If it be shot at with a powerful bow, drawn up to the arm's pit with much force, the arrow enters only three or four fingers' breadth! They say, however, that there are parts of his skin that may be pierced, and the arrows enter deep. * * * There are numbers of them in the jungles of Pesháwur and Hushungur, as well as by the rivers Sínd and Behrah, in the jungles. In Hindustán, too, they abound on the banks of the river Sirwá. In the course of my expeditions into Hindustán, in the jungles of Pesháwur and Hushungur, I have frequently killed the rhinoceros. It strikes very powerfully with its horn, with which in the course of these hunts many men and many horses were gored."

Slight as is the description given by Báber, it nevertheless tolerably suffices to indicate *R. sondaicus* rather than *R. indicus*. The nasal horn of the latter species commonly attains to two spans in length, whereas one span (say nine inches) would be a large size for that of the other. Next, it is very doubtful if the hide of *R. indicus* could be pierced with an arrow as described, although that of *R. sondaicus* might be; and then we have the fact of the latter animal still lingering on the banks of the Máhánuddee, presuming it to be there correctly identified, of which there can be

little, if any, doubt. The discovery of remains in some contemporaneous deposit will probably decide the question sooner or later.

Although there is no probability of the speedy extirpation of the *R. indicus* from such a country as Assam, a writer in the 'Oriental Sporting Magazine' (for October, 1868, p. 638) remarks that the rhinoceros-shooting in the Bhotan *dooars* "cannot last much longer. I am credibly informed," he adds, "that the *palwars* or *shikáris* had killed no fewer than two hundred rhinoceroses in the Gomar *dooar* this year. Say fifty were killed only, and I think it will be understood that [sort of] game will soon be exterminated, as the rhinoceros throws but one calf, which takes many years to come to maturity."

Both *R. sondaicus* and *R. sumatranus* appear to be extensively diffused in the Indo-Chinese and Malayan peninsulas, though not usually inhabiting the same districts; and the latter is probably that stated by Du Halde to inhabit the Chinese province of Quang-si, in lat. 15° N. In the island of Java there is only the *R. sondaicus*, and in those of Sumatra and Borneo only *R. sumatranus*, so far as at present satisfactorily ascertained; but there is reason to suspect that *R. sondaicus* likewise inhabits both of these islands. The Malayan tapir does so, but not Java, and the *Bos sondaicus* all three of the great islands, as I have been assured by Prof. H. Schlegel, of Leyden, who is my authority for the assertion that *Rhinoceros sumatranus* inhabits Borneo. In the Tenasserim provinces the range of the Malayan tapir reaches to 15° N. lat. *Bos gaurus* accompanies *B. sondaicus* to the Straits of Singapore, but not into any of the islands; while *B. frontalis* does not appear to inhabit, in its wild state, so far southward as Orakan. Eastward of the mountains which separate Orakan from Pegu it is not unlikely that *B. sondaicus* accompanies *B. gaurus* to reach at least the confines of the habitat of *B. frontalis*, as its range extends certainly northwards into the Shán states; but how much further to the eastward either *B. sondaicus* or *B. frontalis* extends we have yet to learn. Both *Rhinoceros sondaicus* and *R. sumatranus*, with *Tapirus malayanus*, would appear to inhabit Siam and Cambodia, and the tapir to extend also into Southern China.

E. BLYTH.