The following papers were read:-

1. On the Metád Rat, with a note on Golunda Ellioti.—By W. T.

BLANFORD, F. R. S.

(Abstract.)

The genus Golunda of Gray was originally proposed for two species; G. Ellioti, already described in the Journal last year and G. meltada, (the specific name being evidently a misreading or misprint for mettada,) the subject of the present notice. This rat is very rare in collections, but Mr. Fairbank of Ahmednagar has, after a considerable amount of trouble, succeeded in obtaining several specimens, and an examination of these shew that the animal has none of the cranial or dental peculiarities of Golunda Ellioti, and that there is no reason for removing the metád from the genus Mus. A description and figures of the head, skull, teeth, &c., are given. Some measurements of fresh specimens of G. Ellioti are added, together with the synonymy of both species.

The paper will be printed in the Journal, Part II.

2. Description of new Species of Asiatic Shrews in the Indian Museum.—
By Dr. J. Anderson.

This paper will be printed in the Journal, Part II.

3. Notes on certain Mammals occurring in the Basin of the Mahanadi.— By V. Ball, M. A., F. G. S.

The following brief notes refer only to those species whose occurrence in the above named area has not been previously recorded, or regarding which any unpublished facts in reference to distribution have come under my notice.

It would not subserve any useful purpose at present to attempt to give a general list of the Mammal fauna, as the larger animals of wide range are well known to inhabit this part of the country and the Micro-Mammalia have only been partially collected.

### TUPAIA ELLIOTTI, Waterhouse.

In the Proceedings for April 1874 I recorded having met with the Madras Tree-Shrew in the Sátpúra hills and also that it had been received from Monghyr. Since that time it has been recorded from Matheran by Major Hayes Lloyd and it is mentioned by Dr. Gunther as having been obtained by Capt. Beavan in Mánbhúm.

In 1876 I met with it several times in Sambalpur, not unfrequently it passed me during beats for large game, and on one occasion I picked up a dead specimen which I found early one morning lying at the foot of a tree. Save for a small quantity of blood about the mouth, this specimen shewed

no external sign of injury. On several occasions during the past season (1876-7) I have met with these small animals. They seemed to be most abundant in a large Sal forest on the northern boundary of Jaipur (Vizágapatam District). In Karial (Raipur District) as in Sambalpur, I found one dead early one morning last April. It had several wounds on its body which were, I think, most probably, the result of an encounter with an owl or other raptor. The testes were largely developed—possibly it may have been killed by another male. The measurements of this specimen were Length of body 6.75; tail 7.75 = 14.7.

#### FELIS JUBATA, Schre.

The sole evidence that I have of the occurrence of the hunting leopard is the fact that I saw a skin of one which was brought to the Sambalpur treasury for the Government reward. Unfortunately at the time I saw it it was not possible to trace the history of this skin, but it was in so good a condition that it did not seem probable to me that it had been brought by a native traveller from a long distance.

I may add that on one occasion in Rairakhol I got a brief glance at a leopard in the jungle which, from its light colour and creet carriage, I thought might possibly belong to this species.

Quite recently I have received information from Mr. F. C. Berry, C. S., of a melanoid specimen of *F. pardus* (*F. Melas*, Perron), having been shot in Sambalpur.

## PTEROMYS ORAL, Tickell, P. Petaurista, Pallas apud Jerdon.

Although the brown Flying Squirrel is known to occur in the forests of Chota Nagpur and the Central Provinces I have, on account of its nocturnal habits, only once actually seen it. The occasion was one evening last April when after sunset I saw what I took to be the ordinary large red squirrel laboriously clambering up to the topmost branches of a large tree. Calling for my gun it was put into my hands just as the true nature of the animal was declared by its soaring off towards some bushes. On my shooting it the people expressed much astonishment and the Raja of Karial, near whose house I shot it, declared he had never heard of such a 'bird' before.

Karial adjoins Bastar where this species was observed by Dr. Jerdon. Mr. Blanford, I believe, obtained it near the Godávari and recently I have heard of its having been shot on Parisnáth Hill.

The colours of the Karial specimen when quite fresh were as follows:—I give them as there appears to be some difference of opinion as to the true coloration.

3 Above. The hairs black, tipped with grey giving a general hoary appearance. Feet and prolonged toe which supports the parachute—black.

Tail smoky-black. Beneath. Greyish-white passing into smoky-grey on the cheeks extremities and edges of the parachute. This specimen does not shew the rufous patch noted by Dr. Jerdon as characteristic of the male.

Unfortunately the specimen was not measured in the flesh. After stuffing and partial drying its dimensions (unstretched) were—

Length 15" + tail 15" = 30" 
Extent between fore feet to end of claws 16."6

", hind ", ", 17."

Width of parachute across centre of body 12.

#### Sciurus Maximus, Schre.

This squirrel probably occurs sparingly throughout the area, but in some places is particularly abundant, as in Athgar near Cuttack where it is to be found in certain ancient Mango groves on the banks of the Mahanadi. I have shot it in Rairakhol and in Daspalla on the south of the Mahanadi. At Paparhandi in Jaipur I heard of a large colony but did not visit the locality. Dr. Jerdon found it to be abundant in Bastar.

#### ELEPHAS INDICUS, Cuv.

The elephant within our area, so far as I know, does not occur south of the Mahanadi. Possibly there may be some in the Khond Malias of the Orissa states but I have never heard of them and I received positive information that there were none in Kalahandi. Far to the south indeed, in Bastar, a party of five have for many years been wandering about, but it is stated that these, or at least a pair of them, originally escaped, and the last of the herd, a remarkably fine male, which has this year been captured by the Bastar Raja is claimed by the Jaipur Chief as having formerly belonged to him and is at the present moment the subject of a very complicated dispute. North of the Mahanadi, elephants occur in Hindol, Dhenkánál, Keonjhar and Mohurbhanj. Outside our limits they are found in the long range of hills which separates Mánbhúm from Singhbhúm.

• In the extreme west of Chota Nagpur in Korea and towards Matin and Uprora there are colonies also. In all the above localities the Kedda operations of the last ten years have much diminished the numbers—in some cases I believe no individuals of the herds have escaped.\*

### Rhinoceros sondaicus, S. Müll.

According to Dr. Jerdon "a very few individuals (of this species) are stated to occur in the forest tract along the Mahahadi river, and extending northwards to Midnapore."

\* In the Proceedings for May 1868 I have given a list of the trees upon the leaves of which the dephants of these jungles chiefly subsist.

So far as I have been able to ascertain there is no authentic case of a Rhinoceros ever having been observed in the forest region bordering the Máhanadi. It has occurred to me as possible that the rumour may have got abroad from the fact of there having formerly been tame specimens in the possession of some of the Rajas.

At Burpali in the Dakin-tir of Sambalpur the Raja told me that on the occasion of a marriage between a daughter of one of his ancestors and the Bamra Raja, the bride's dowry had been a Rhinoceros, which before that had for some years been kept at Barpali.

In Patria (Sambalpur) I met with an old Cabuli who had retired from his former business as a trader. He told me that one of his speculations was a Rhinoceros which he purchased in Calcutta and marched down offering it for sale to various Rajas en route till he reached Jaipur, where he disposed of it for Rs. 11,000 which sum, however, he said, he never received.

It is perhaps unnecessary to state that it is unadvisable to believe all that one hears from the people at the head quarters of these states though the lower classes of the population may be truthful enough. But I shall mention one example of an untruthful statement. A friend of mine shewed me a live specimen of a Cockatoo which he had received from one of these Rajas who assured him it had been caught in his own district. My friend, whose ornithological knowledge was limited, was expecting a further supply of the birds which the Raja promised to have captured for him during the rains when, according to their annual custom, they visited his jungles.

In conclusion I do not know of any cover or grazing grounds in the vicinity of the Mahanadi between Cuttack and Sambalpur suitable for a Rhinoceros. The bed of the river is either rocky or sandy, and marshy jheels occur but seldom in its neighbourhood and are then, in all cases, of small extent.

#### Axis porcinus, Linn.

During the present year, in the Jaipur District, I saw a single specimen of the Hog-deer. I had a good view of it as, owing to its horns, being in velvet, it had come out to the edge of the jungle to feed in the day time. The species must, I think, be rare as I understood from Capt. Blaxland, the Assistant Agent, that he had never either seen or heard of it. A large collection of horns brought in by the natives did not include any of this species. In Chota Nagpur I do not know of its occurrence.

## ANTILOPE CERVICAPRA, Pallas.

The Antilope is very sparingly distributed throughout this area. At Barwa in Palamow near the sources of the Sunk and Koel rivers there is a large herd and further west, in Sirguja, outside the present limits, I have met with several distinct colonies. But to the south of the Máhanadi I

only know of three localities where they exist at present. One is on the borders of Kalahandi and Ganjam where I have heard that they are somewhat abundant. The second locality is near Dulapur on the Ong river in the Dakin-tir of Sambalpur where there is a very small herd. The third locality is 150 miles further south near Omerkote on the Jaipur plateau where also the herd is but a small one. According to Colonel Tickell there were a few formerly in the open parts of Singhbham. These have now, I believe, been wholly exterminated.

Gazella Bennettii does not occur so, far as I know, in this area, but I have seen it in the extreme west of Sirgúja, whence probably it extends steadily to the Sátpuras where it is not uncommon.

Mr. W. T. Blanford said, that he had heard the same explanation as that furnished by Mr. Ball for the asserted occurrence of rhinoceros wild in the Máhanadi country, and he agreed with Mr. Ball in believing that no wild rhinoceros had been found in that part of India in recent times.

## LIBRARY.

The following additions have been made to the Library since the Meeting held in June last.

# TRANSACTIONS, PROCEEDINGS, AND JOURNALS, presented by the respective Societies or Editors.

Berlin. Die K. Preussische Akademie der Wissenschaften, Monatsbericht,
--Decembre, 1876, und Januar-Februar, 1877.

Dechr. 1876. Weber.—Uber ein Synonymisches Sanskrit Glossar aus dem Nachlass des Demetrios Galanos. Frülich.—Uber Himmelswarme, Temperature des Weltraums und mittlere Temperatur der Atmosphäre. Peters.—Ubersicht de während der von 1874 bis 1876 ausgeführten Reise S. M. S. Gazelle gesammelten Fische.

Januar. 1877. Boll.—Zur Physiologio des Schens und der Farbenempfindung. Februar. Peters.—Uber Rhinoceros inermis, Lesson.

Birmingham. Institution of Mechanical Engineers,—Proceedings, No. 1, January 1877, and a General Index to Proceedings for 1847—1873.

Bombay. The Vedárthayatna, or an attempt to interpret the Vedas,—Vol. 1, Nos. 12 and 13.

Christiania. Nyt Magazin for Naturvidenskaberne,—Vol. 21, Pts. 1—4, and Vol. 22, Pts. 1—3.

Forhandlinger i Videnskabs-Selskabet i Christiania, 1874-75.