



L. S. G. 1858

M & N. Hanhart, Imp.

CUSCUS ORNATUS.

PROCEEDINGS
OF THE
ZOOLOGICAL SOCIETY OF LONDON.

January 11th, 1860.

Dr. Gray, V.P., in the Chair.

Dr. Hamilton exhibited some remarkably fine and large specimens of hybrids between the Pheasant (*Phasianus colchicus*) and the hen of the Domestic Fowl.

Mr. S. Stevens exhibited a series of the birds and lepidopterous insects contained in Mr. Wallace's recent collections from the island of Batchian. Mr. G. R. Gray was stated to be preparing a list of the birds, recognizing eighty-five species, of which about twelve appeared to be undescribed.

The following papers were read :—

1. DESCRIPTION OF A NEW SPECIES OF CUSCUS (*C. ORNATUS*) FROM THE ISLAND OF BATCHIAN, WITH A LIST OF THE MAMMALIA COLLECTED IN THAT ISLAND BY MR. A. R. WALLACE. BY DR. JOHN EDWARD GRAY, F.R.S., V.P.Z.S., PRES. ENT. SOC., ETC.

(Mammalia, Pl. LXXIV.)

Mr. Wallace has sent to the British Museum a series of Mammalia collected in the island of Batchian in the year 1859.

The most interesting specimen is a new species of the genus *Cuscus*, belonging to the section of the genus which has the inner surface of the ears bald. It may be thus described :—

CUSCUS ORNATUS (Pl. LXXIV.).

Male pale golden-brown ; back rather darker, with small irregular white spots ; crown and back with a narrow longitudinal blackish

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observed the extreme differences which exist in their habits, food, note, &c.

Judging from analogy, it is fair to believe that many of the species, even among the larger and best known vertebrated animals, which are now considered doubtful, and sometimes only regarded as slight varieties, if properly observed and described, would prove to be quite distinct; and if this be the case with the larger animals, what must it be with the smaller articulated and molluscous or radiated animals, which are very rarely described, except from specimens in one condition, often indeed from some isolated part of the animal, as its shell or coral, as it is found in a museum? I cannot but think that until we have better materials to work from, it is rather rash to theorize on so important a question as the stability or mutability of species.

As regards the animal now before us, instead of knowing its history in all its states, and having a full account of its habits and manners (and I cannot conceive that any species is well established without all these particulars), we have only a skin with its separated skull, and that of one sex, of a genus in which the sexes sometimes differ greatly in external appearance, and of which the species are very imperfectly known.

Thus, for example, the section of the genus to which this specimen is referable contains at present two species; one long known, and of which perhaps there are not more than twenty-five or thirty specimens in all the museums in Europe. The males in all these cases are pure white, and the females reddish with a narrow dorsal streak.

Last year I described a second species from a male, a female, and a young specimen in the British Museum, in which both sexes are ashy-grey without any dorsal streaks, and which has not been observed in any other collection. Now I have described a third from a single adult male, which is bright reddish-yellow varied with white spots, having a very distinct narrow dorsal stripe. I have every reason to believe that this is a good and distinct species, but without stronger evidence I can hardly say that it is so, particularly as I have no knowledge of the female. Moreover, all the males of the species most nearly allied to it in the different museums are pure white, a colour which is very rare in the animal kingdom, except when it arises from a state of albinism; and the eyes of this animal are represented in the published figures as red, as if it were an albino; and this male specimen has a distinct dorsal streak, which is the character that distinguishes the female of *C. orientalis* from the other species of the genus. I am therefore induced to inquire, can the males which we have hitherto had have been albinos? and is this the naturally-coloured male of that species? And though I ask the question in order to induce other naturalists further to examine the subject, I am myself inclined to regard *C. ornatus* as a distinct species. Whether this be the case or not, I do not think that this specimen affords any ground for believing that the three species of the genus were derived from a common origin, and have gradually separated themselves from each other, more especially as they all seem to be

organized on very much the same plan, and are confined to a very limited space or group of islands on the earth's surface.

With this animal Mr. Wallace has sent

1. *CYNOPITHECUS NIGRESCENS.*

Papio nigrescens, Temm. Consp. &c. iii. 111.

Three specimens (with their skulls), two adult and one young.

The adult agrees well with the specimen which the British Museum received from the Leyden Museum as coming from Celebes. The younger specimen wants the pale subterminal ring on the longer hairs of the shoulder, which are more or less distinctly marked in all the adult specimens I have examined. This species is very nearly allied to the *C. niger* of the Philippines.

Mr. Wallace, in a note, remarks, "These apes are very rare and, I think, very interesting, as I expect they are from the most southern limits for these animals."

I think there must be some mistake in this, because, first, they are more Monkeys than Apes; and secondly, both Monkeys and Apes are found abundantly in Sumatra and Java, much further southwards than Batchian, which is nearly on the equator.

The Bats seem numerous on the island, as the collection contained fifty-nine specimens. I have not ventured to name or describe them, as Mr. Robert Tomes has now taken up this group of animals, and promised to form a catalogue of them; so I leave their determination to him.

2. *RHINOLOPHUS*, no. 1.

3. *RHINOLOPHUS*, no. 2.

4. *RHINOLOPHUS*, no. 3.

These species differ greatly in size and colouring.

5. *HIPPOSIDEROS*, no. 1.

6. *HIPPOSIDEROS*, no. 2.

The second species is the smallest of the group I have yet seen.

7. *MINIOPTERIS AUSTRALIS.*

Peculiar for the great length of the tail and infemoral membrane, and for the length and freedom of the hind feet.

8. *PTEROPUS*, no. 1. (Seven specimens.)

9. *PTEROPUS*, no. 2. (Five specimens.)

10. *PTEROPUS*, no. 3. A single specimen, of a uniform reddish-brown, rather paler on the head.

These species differ greatly in colour, and they appear to be very uniform, as there are many specimens of nos. 1 and 2, and the individuals are much alike.

11. VIVERRA ZEBETHA, Linn.

Hab. Batchian. A young male.

Mr. Wallace names this animal *Paradoxurus*, but it has none of the characters of that genus: the scrotum is covered with hair, and the tail uniformly hairy.

12. BELIDEUS ARIEL.

Hab. Batchian.

Two males, rather differing in size and colour: the larger is darker and greyer, the smaller paler and redder on the back.

2. DESCRIPTION OF A SOFT TORTOISE (*ASPIDOCHELYS LIVINGSTONII*) FROM THE ZAMBESI, SENT TO THE BRITISH MUSEUM BY DR. LIVINGSTONE. BY DR. JOHN EDWARD GRAY, F.R.S., V.P.Z.S., PRES. ENT. SOC., ETC.

(Reptilia, Pl. XXII.)

The British Museum has lately received from Dr. Livingstone the dorsal and sternal shields of a large fluviatile Soft Tortoise from the country near the Zambesi. It was accompanied by the skull of a foetal African Elephant, and some other bones of that animal.

Some years ago I received through the Earl of Derby a Soft Tortoise from the River Gambia, which differed from the genus *Emyda*, to which it was allied, in having no bones on the hinder part of the margin of the dorsal shield. I, therefore, proposed to establish for it a new genus.

When I described this genus I called it *Cyclanorbis*, but received a note from Dr. Peters, before the account of this genus was printed, in which he informed me that he had found near Mozambique, on the River Zambesi, a Tortoise which was called *Casi*, which wanted these bones on the hinder part of the margin of the dorsal shield, and which he had proposed to call *Cyclanosteus frenatus*, on account of certain black streaks on the head. I obliterated my name, and adopted that which my friend Dr. Peters has suggested, and described the one I had received from the Gambia under the name of *Cyclanosteus petersii* (Proc. Zool. Soc. 1853; Ann. & Mag. N. H. 1855, xv. 69; Catalogue of Shielded Reptiles in the British Museum, 64, t. 29).

The animal from the Zambesi which we have received from Dr. Livingstone agrees with the animal from the Gambia in wanting the bones in the hinder part of the margin of the dorsal shield; but it differs so essentially in the structure of the sternum that it is necessary that another genus should be established for its reception. Now, it may be the *Casi* of the natives, but unfortunately Dr. Livingstone has not sent its native name, and it may be the *Cyclanosteus frenatus* of Dr. Peters; but I cannot find any description of that animal. It is not noticed, nor any other Tortoise, in the review of the Amphibia collected during his Travels, which Dr. Peters