April 9, 1833.

Joseph Cox Cox, Esq., in the Chair.

Several extracts were read from a letter, addressed by Dr. A. Smith, Corr. Memb. Z.S., to Mr. Yarrell, and dated Port Elizabeth, Algoa Bay, December 22, 1832.

Dr. Smith states his belief that the *Hyæna vulgaris*, Cuv., does not inhabit South Africa; its place being occupied by the *Hyæna villosa*, Smith, which bears, when young, considerable resemblance to that species.

He also states that the *Eagle* from the Cape, which was presented to the Society by the Hon. J. T. Leslie Melville, and which is now living in the Menagerie, is not the young of *Aquila vulturina*, Daud., but of *Aq. Choka*, Smith, (*Falco rapax*, Temm.).

He remarks that *Vultur auricularis*, Daud., is not confined to the interior of South Africa, but is met with close to Cape Town, over which he has seen it flying. The belief that several pairs build their nests together (whence the appellation of *sociable Vulture* has been derived,) is erroneous; for Dr. Smith has never met with more than one nest actually occupied upon the same tree: the error has probably originated in a new nest being occasionally built adjoining to an old one, which had been deserted on account of its having become unserviceable. The bird seems but little disposed to sociability; rarely more than two are seen together, and if four occur in the vicinity of a carcass, the number is considered as great; while of *Vultur fulvus*, it is by no means uncommon to see a hundred, or even more, congregated together where carrion exists.

Dr. Smith adds that *Aquila Verreauxii*, Less., is synonymous with *Aq. vulturina*, which has recently been described by M. Lesson as a *Haliæetus*: it has, however, none of the habits of the *Fishing Eagles*. It inhabits the highest and most rocky mountains, preying chiefly on the *Cape Hyrax*. The error has probably arisen from the white back being concealed, in stuffed specimens, by the wings.

M. Lesson, in November 1830, founded two new genera, *Gymnogenys* and *Teratophius*, on the *Falco Gymnogenys*, Temm., and *Falco ecaudatus*, Shaw. These genera are respectively synonymous with *Polyboroides* and *Helotarsus*, proposed by Dr. Smith in the 'South African Journal' in April of the same year.

The *Circæetus pectoralis* and *Falco Chicqueroides* of Dr. Smith are respectively synonymous with *Circ. thoracinus*, Cuv., and *Falco biarmicus*, Temm.

Dr. Smith also states that the *Antelope* described by Mr. Woods in the 'Zoological Journal' as the *Antelope personata*, is the young of *Ant. pygarga*, Pall., the *Bonte Bok*.

NO. IV. PROCEEDINGS OF THE ZOOLOGICAL SOCIETY.

An extract was read from a letter, addressed to the Secretary by Charles Telfair, Esq., Corr. Memb. Z.S., and referring to a Viverridous animal obtained by that gentleman from Madagascar, which lived for several months in his possession, and on its death was transmitted in spirit to the Society. Mr. Telfair states his belief that the animal is new to science; a belief in which Mr. Bennett participated. The specimen was exhibited, and Mr. Bennett pointed out, in reference to a "Description of a Viverridous Animal from Madagascar," its resemblance to the *Paradoxuri* in the plantigrade character of its feet; the webbing of its toes almost to their extremities; and the number and retractility of the claws, which on the fore-feet are sharp and resembling those of the *Cats*. Its general appearance also approaches that of *Paradoxurus*; but the fur is short, adpressed, and of uniform colour, and the tail is slender, cylindrical, and equally hairy all round, rendering it probable that this organ is not subject to being curled in the manner usual in that genus, from which it also differs in the possession of an anal pouch. In the young individual exhibited the dentary characters could not be ascertained, its teeth being only of the deciduous class. Its anatomical structure resembles, in the shortness of the intestines, the size and direction of the *cæcum*, the disposition of the superficial vessels of the kidneys, and in some other respects, that of the typical *Viverridae*, and approaches nearly to the structure of the *Felidae*.

Mr. Bennett stated 'his impression that the animal should be regarded as the type of a new genus, nearly allied to, but distinct from, *Paradoxurus*. He proposed for it the name of *Cryptoprocta ferox*.

Some remarks by Mr. Spooner on the *post mortem* appearances of the *Moose Deer*, which died suddenly, at the Society's Gardens, on the morning of the 28th of March, were read.

"Having been informed by the keeper that a copious ejection from the stomach took place a few minutes previous to dissolution, I was impressed with the idea that a rupture of that organ had taken place, or that the animal had taken some poisonous ingredient with its food. A careful investigation of the alimentary canal, however, did not tend to verify such opinion, as the whole of the organs composing it bore a healthy aspect, with the exception of a few hydatids, which were found to be adherent to the peritoneal tunic of the stomach. The kidneys were in a state of chronic disease, which was more particularly confined to their cortical substance. The structure of the liver was also much impaired by chronic inflammation.

"On examining the *viscera* of the *thorax*, the ravages of acute disease were sufficiently apparent to account for the sudden death of the animal. The heart and *pericardium* were highly inflamed, as were also the large vessels proceeding to and from that organ. The *liquor pericardii* was morbidly augmented, and of a sanguineous hue. The right side of the heart was hypertrophic, and the lungs

were more than usually congested. In conclusion I beg leave to state that, in my opinion, there can be no doubt that the immediate cause of death was the acute disease of heart, but that the chronic disease of kidneys and liver was the remote cause."

A specimen was exhibited of an *Antelope*, previously undescribed, which forms part of the collection of Mr. Steedman, by whom it was communicated to the Society. It was characterized by Mr. Ogilby as the

ANTILOPE ELLIPSIPRYMNUS. *Ant. cornubus maximis, elongatis, procurvis, annulatis: rhinario magno: scopis nullis: poris inguinalibus: caudâ longâ, floccosâ: pilis rigidis, floccosis, lineâ dorsalis cervicisque mediâ reversis: rufo-brunneo griscoque variis, meloptio saturatè brunneo, maculâ longâ supraoculari, labiis, fasciâ indistinctâ gulari, maculâ jugulari, ellipsisque prymnali, albis.*

Mr. Ogilby gave the following detailed description.

"This magnificent animal, which belongs to that section of the *Antelope* genus which Colonel Smith denominates *Ægoceri*, and which comprehends the *Ant. leucophæa* and *Ant. equina* of naturalists, measures 7 feet $3\frac{1}{2}$ inches from the muzzle to the root of the tail, 3 feet 10 inches in height at the shoulder, and 3 feet 8 inches at the croup. The horns measure 30 inches along the curve, and the tail with the hair 21 inches.

"The ground colour, both above and below, is a mixture of grey and russet brown, the latter predominating on the back, croup, cannons and pasterns. The forehead and chaffron are uniform dark brown. The hair is uniformly harsh, and divided into separate locks, which lie in different directions. On the back, immediately above the loins, there is a little whorl or centre, from which the hair all along the back and neck is reversed or directed forwards. The hair of the neck is longer and more bristly than that of the body, reversed above, and directed transversely over the sides so as to form a lengthened ridge on the throat. There is no mane nor beard. A large white mark passes over each eye, extending 3 or 4 inches down on each side of the chaffron; the lips and interior of the ear are also white, and an indistinct band of the same colour crosses the throat, at the junction of the head and neck. The hair on the chest is also reversed, and directed upwards. The ears are large and broad like those of an *Ox*; they are covered on the outside with short hair of a pale red colour, having a white mark on the under edge, and marked with five longitudinal *striae* within, as in the generality of the *Antelope* genus. The tail reaches nearly to the heel, and is covered with hair like that of the body, brown above, white beneath, and very slightly tufted. But the most extraordinary mark is a white ribband which passes over the croup, down each hip, and unites between the thighs, so as to form a perfect and regular ellipse, of which the root of the tail occupies the upper focus. This mark contrasts in a most remarkable manner with the deep russet colour of the surrounding parts, and is in itself so singular and cha-

racteristic of the animal, that I have judged it proper to commemorate it in the specific appellation.

"The horns are $2\frac{1}{2}$ inches distant at the base, and $22\frac{1}{2}$ at the points. They first point backwards and outwards, spreading widely and directed nearly in a straight line for the first 12 inches of their length, then bend forwards and slightly inwards with a uniform curvature, the concavity being in front, or just in the opposite direction from that which is observed in the *Ant. leucophæa* and *Ant. equina*. At first I was inclined to believe that this direction might have been given them by mistake in the stuffing of the specimen, but Mr. Gould assured me that they were attached to the *os frontis*, and could not possibly have been reversed. They are surrounded by twenty-four distinct and prominent *annuli*, nearly obliterated behind, and extending to within 6 inches of the points, which are smooth and blunt. Between the *annuli*, the horns are marked with deep and regular *striæ*, which run in a longitudinal direction. As far as the *annuli* extend they are of a light brown colour, but the smooth part is black, and they are almost of a uniform thickness from the root to the points. Their circumference at the base is 9 inches. The muzzle is large and naked; there are neither *crumenæ*, nor *scopæ* on the knees, but the inguinal pores are very distinct, and surrounded by a naked space of considerable extent.

"The locality from which Mr. Steedman procured this magnificent specimen, which at present forms one of the principal ornaments of his valuable collection of South African animals, lies about twenty-five days' journey north of the Orange river, between Latakoo and the western coast of Africa. That gentleman informs me that he never saw but one other specimen, which, however, was not perfect, but of much larger dimensions than the present individual, and with longer and stouter horns."

Mr. Ogilby subsequently called the attention of the Society to a specimen of a Mammiferous Quadruped, also communicated by Mr. Steedman for exhibition, which he described in detail with reference to a paper "On the Characters and Description of a new Genus of *Carnivora*, called *Cynictis*."

The new genus proposed by Mr. Ogilby connects the family of the *Civets* with that of the *Dogs*, participating with the one in its organs of mastication, and with the other in those of locomotion, and consequently ranging with *Proteles*, Isid. Geoff., as a second genus, intermediate between those two groups. *Proteles*, however, partakes in some degree of the characters of the *Hyaenas*, while *Cynictis* is more immediately interposed between the *Dogs* and *Ichneumons*, to the latter of which it bears a pretty close resemblance in external form.

The generic characters may be thus expressed :

CYNICTIS.

Dentes *primores*, $\frac{6}{6}$; *laniani*, $\frac{1-1}{1-1}$; *molars*, $\frac{6-6}{5-5}$, quorum utrinque

utrinsecus tres priores spurii, quartus carnarius, sequentes tuberculati.

Pedes digitigradi, digitis 5—4, unguibus falcularibus longis fossoriis.

Cauda longa, comosa.

Genus inter *Ryzænam* et *Herpestem* intermedium, et dentibus et digitorum numero.

CYNICTIS STEEDMANNI. *Cyn. rufus, dorso saturatiore; genis, collo, lateribus caudæque rufis griseo intermixtis; caudæ apice sordidè albo.*

Long. corporis cum capite, 1 ped. 6 unc.; caudæ, 1 ped.; capitis, a rostro ad auriculæ basin, $2\frac{1}{4}$ unc.; auriculæ, $\frac{3}{4}$; auriculæ latitudo, $1\frac{1}{4}$.

The general colour, as well as the whole external appearance of the animal, is that of a small *Fox*.

Mr. Ogilby described in detail the generic and specific peculiarities, and pointed them out on the preserved skin and on the cranium; in the latter, as in that of *Herpestes*, the bony ring surrounding the orbit is complete. He added also references to the Travels of Sparrman, for a notice apparently of this animal; and to those of Mr. Barrow, (vol. i. p. 185,) in which a brief, but perfectly intelligible account of it is contained: it is there said to be "known to the colonists under the general name of *Meer-kat*."

Mr. Steedman's specimen was obtained in the neighbourhood of Uitenhage, on the borders of Caffraria.

Lieut. Col. Sykes exhibited a fœtus of a *Panther*, preserved in spirit, and exhibiting all the markings of the adult; thus showing that the animals of this species do not undergo the changes in markings in their progress towards maturity which are generally found to occur in the genus *Felis*. Col. Sykes's chief object in bringing it before the Society, was to call attention to certain sub-cuticular appearances, involving questions on the vascularity and colouring principle of hair, and, by analogy, of feathers also. The body of the fœtus is covered with the tawny hair and numerous black rings of the adult, and of an equally brilliant colour: on the limbs, however, there is not any hair, but where the future spots are to appear there exists a black circle or blotch, indicating an arrangement of the colouring matter, or a textural arrangement for the reflection of this particular colour, at a period antecedent to the access of light.

In the Paper in which Col. Sykes described these appearances, he considered the growth of hair and of feathers, and the causes of the changes of colour observed in them, quoting largely from various authorities. He also adduced remarks made by himself in support of the probability that, although their existence has not yet been demonstrated, these assumed extra-vascular parts are provided with vessels and with nerves. His principal arguments were deduced from the deep attachment of some feathers and quills; the

multitude of vessels in the roots, and the nerves traceable to the bulbs of hair ; the direct action of the will upon hair and feathers in certain animals ; the fact of hair becoming an organ of sensation in *plica Polonica* ; the effect of impressions of the mind and of disease upon the hair in man ; the internal preparatory process for reflecting particular colours ; and the changes produced by sexual periods. He further inquired whether, as hair grows from the *cutis* and passes through the *rete mucosum*, this latter membrane may not be the depository of the colouring matter, whence it is taken up perennially by hair and by most feathers, but only at certain seasons by others. Whether, however, the change of colour in feather and hair be owing to the diffusion of a new body through them, or to a modification in the arrangement of their primary molecules causing them to reflect other rays,—in either case, he apprehends, organic action is equally implied.