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THE
ANIMAL KINGDOM,

Arranged after its Organization;

FORMING A NATURAL HISTORY OF ANIMALS,

AND

AN INTRODUCTION TO COMPARATIVE ANATOMY.

BY THE LATE

BARON CUVIER,

COUNCILLOR OF FRANCE, AND MINISTER OF PUBLIC INSTRUCTION.

TRANSLATED AND ADAPTED TO THE PRESENT STATE OF SCIENCE.

THE MAMMALIA, BIRDS, AND REPTILES,
BY EDWARD BLYTH.

THE FISHES AND RADIATA,
BY ROBERT MUDIE.

THE MOLLUSCOUS ANIMALS,
BY GEORGE JOHNSTON, M.D.

THE ARTICULATED ANIMALS,
BY J. O. WESTWOOD, F.L.S.

A NEW EDITION,

WITH ADDITIONS BY W. B. CARPENTER, M.D., F.R.S., AND J. O. WESTWOOD, F.L.S

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THE WART-HOGS (*Phascochæres*, F. Cuv.)—

The grinders of which are composed of cylinders, cemented together by a cortical substance, almost like the transverse laminæ of the Elephant, and like them succeeding each other from behind. Their skull is singularly large, the tusks rounded, directed laterally upward, and of a frightful magnitude; and on each of their cheeks hangs a thick fleshy lobe, which completes the hideousness of their aspect. They have but two incisors above and six below.

The individuals received from Cape Verd (*S. africanus*, Gm.) have generally the incisive teeth complete; those which arrive from the Cape of Good Hope (*S. æthiopicus*, Gm.) scarcely show any trace of them, although vestiges are sometimes found within the gum. This difference may perhaps arise from age, which has worn down the teeth of the latter, or it may indicate a specific diversity, the more especially as the heads of those from the Cape are rather larger and shorter.

There is still better reason to separate from the genus of Pigs—

THE PECCARIES (*Dycoteles*, Cuv.)—

Which have certainly grinders and incisors very like those of the Pigs properly so called, but their canines, directed as in the generality of the class, do not project from the mouth, besides which they want the external toe to their hind-feet. They have no tail, and upon the loins is a glandular opening from which a fetid humour exudes. The metacarpal and metatarsal bones of their two great toes are soldered into a kind of cannon-bone, as in the Ruminants; with which their stomach, also, divided into several sacs, presents a marked analogy. It is a singular fact, that the aorta of these animals is often found very much enlarged, but not always in the same part, as if they were subject to a kind of aneurism.

There are two species known, both inhabitants of South America, which were first distinguished by Azzara. Linnæus confounded them together under the name of *Sus tajassu*.

The Collared Peccary (*D. torquatus*, Cuv.)—Hair annulated grey and brown; a whitish collar, stretching obliquely from the angle of the lower jaw over the shoulder. Size half that of the Wild Boar.

The White-lipped Peccary (*D. labiatus*, Cuv.)—Larger; and brown, with white lips.

Here may be placed a genus now unknown among existing animals, which we have discovered, and named

ANOPLOTHERIUM, Cuv.,—

And which presents the most singular relations with the different tribes of *Pachydermata*, approximating, in some respects, to the order *Ruminantia*. Six incisors to each jaw, four canines almost similar to the incisors and of even length with them, and seven molars on each side above and below, form a continuous series without any intervening space, a disposition of the teeth seen elsewhere in Man only. The four posterior molars on each side resemble those of the Rhinoceroses, the Damans, and Palæotheriums; that is to say, they are square above, and form double or triple crescents below. The feet, terminated by two great toes, as in the Ruminants, are yet different in the circumstance of the metacarpal and metatarsal bones remaining always separated, or being never united into a cannon-bone. The construction of their tarsus is the same as in the Camel.

The bones of this genus have hitherto only been found in the gypsum quarries near Paris. We have already recognized five species: one the size of a small Ass, with the low form and long tail of an Otter (*A. commune*, Cuv.), the fore-feet of which have a small internal accessory toe; another of the size and slender form of the Gazelle (*A. medium*); a third no bigger and with nearly the same proportions as a Hare, with two accessory toes to the sides of its hind-feet, &c. (See my *Ossemens fossiles*, tom. iii.)

The ordinary Pachydermata which have not cloven feet comprehend, in the first place, three genera, the molar teeth of which are very similar, there being seven on each side with square crowns, and various prominent lines, and seven in the lower jaw, the crowns of which form double crescents, and the last of all a triple one: their incisors, however, vary.

THE RHINOCEROSES (*Rhinoceros*, Lin.)—

In this respect differ from one another. They are large animals, with each foot divided into three toes, and the nasal bones of which, very thick and united into a kind of arch, support a solid horn, which adheres to the skin, and is composed of a fibrous and horny substance, resembling agglutinated hairs.

They are naturally stupid and ferocious ; frequent marshy places ; subsist on herbage and the branches of trees ; have a simple stomach, very long intestines, and great cœcum.

The Indian Rhinoceros (*Rh. indicus*, Cuv.)—In addition to its twenty-eight grinders, this species has two stout incisive teeth in each jaw, together with two other intermediate smaller ones below, and two still more diminutive outside of its upper incisors. It has only one horn, and its skin is remarkable for the deep folds into which it is thrown behind and across the shoulders, and before and across the thighs. It inhabits the East Indies, and chiefly beyond the Ganges.

The Javanese Rhinoceros (*Rh. javanicus*, Cuv.)—with the great incisors and single horn of the preceding, has fewer folds in the skin, though one of them on the neck is larger ; and, what is remarkable, the entire skin is covered with square angular tubercles, [as is also the case, to a partial extent, in the preceding ; from which it further differs in having a comparatively slender head].

The Sumatran Rhinoceros (*Rh. sumatrensis*, Cuv.)—with the same four great incisors as the foregoing, has no folds to the skin, which is besides hairy, and there is a second horn behind the first.

The African Rhinoceros (*Rh. africanus*, Cuv.) [or rather Rhinoceroses, three species of them being now ascertained].—Two horns as in the preceding ; and no folds of the skin, nor any incisor teeth, the molars occupying nearly the whole length of the jaw. This deficiency of incisors might warrant a separation from the others. [The Great Rhinoceros (*Rh. simus*, Burchell), which considerably exceeds in size any of the others, is further distinguished by its pale colour, its very long and straight anterior horn, and remarkably short hind one, and particularly by the form of its upper lip, which is not capable of elongation, and a certain degree of prehension, as in all the others : it is the most gregarious of any, and also the most inoffensive, frequenting the open karoos. The common Cape Rhinoceros (*Rh. africanus* or *capensis*) is darker, with also unequal horns, the posterior being shorter ; and the Ketloa Rhinoceros (*Rh. ketloa*), recently discovered by Dr. Smith, is an animal of solitary habits, with horns of equal length, reputed to exceed the rest in ferocity.*]

There have been found, under ground, in Siberia and different parts of Germany, the bones of a double-horned Rhinoceros, the skull of which, besides being much more elongated than in any known existing species, is further distinguished by a bony vertical partition that supported the bones of the nose. It is an extinct animal ; but of which a carcase, almost entire, exposed by the thawing of the ice on the banks of the Vilhoui in Siberia, showed to have been covered with tolerably thick hair. It is possible, therefore, that it inhabited northern climates, like the fossil Elephant.

More recently there have been disinterred, in Tuscany and Lombardy, other Rhinoceros bones, which appear to have belonged to a species allied to the African. Some have been found, in Germany, with incisors like the Asiatic species ; and lastly, there have been discovered, in France, the bones of one which announce a size scarcely larger than a Pig. [It appears that several of the fossil species were destitute of the nasal horn.]

THE DAMANS (*Hyrax*, Hermann)—

Were long placed among the *Rodentia*, on account of their very small size ; but, on examining them carefully, it will be found that, excepting the horn, they are little else than Rhinoceroses in miniature ; at least they have quite similar molars ; but the upper jaw has two stout incisors curved downwards, and, during youth, two very small canines ; the inferior four incisors, without any canines. They have four toes to each of their fore-feet, and three to the hind-feet, all, excepting the innermost posterior, which is armed with a crooked and oblique nail, terminated by a kind of very small, thin, and rounded hoof. The muzzle and ears are short : they are covered with hair, and have only a tubercle in place of a tail. The stomach is divided into two sacs ; their cœcum is very large, and the colon has several dilatations, and is also furnished with two appendages about the middle, analogous to the two cœca of birds.

Only one species is known, the size of a Rabbit, and greyish : it is not uncommon in rocky places throughout Africa, where it is much preyed on by rapacious birds, and it also appears to inhabit some parts of Asia ; at least we cannot perceive any certain difference between the *Hyrax capensis* and *H. syriacus*. [Five, if not six, are now conclusively established ; one of which, indigenous to South Africa, even ascends trees.]

THE PALÆOTHERIUM, Cuv.—

Is another lost genus : with the same grinders as the two preceding, six incisors and two canines to each jaw as in the Tapirs, and three visible toes to each foot, it combined a short fleshy trunk, for the muscles of which the bones of the nose were shortened, leaving a deep notch underneath. We have discovered the bones of this genus, mingled with those of the *Anoplotherium*, in the gypsum quarries in the environs of Paris, and they occur in several other parts of France ; [also, with those of the *Chæropotamus*, *Dichobune*, &c., other lost genera of *Pachydermata*, in the Binstead quarries of the Isle of Wight, England].

* Previous to discovering this species, a fine specimen of which is deposited in the British Museum, Dr. Smith received information, from the natives, of the existence of five sorts of these animals in South Africa, which are distinguished there by separate names : one of them is stated to have only a single horn.—ED.



Rhinoceros.