





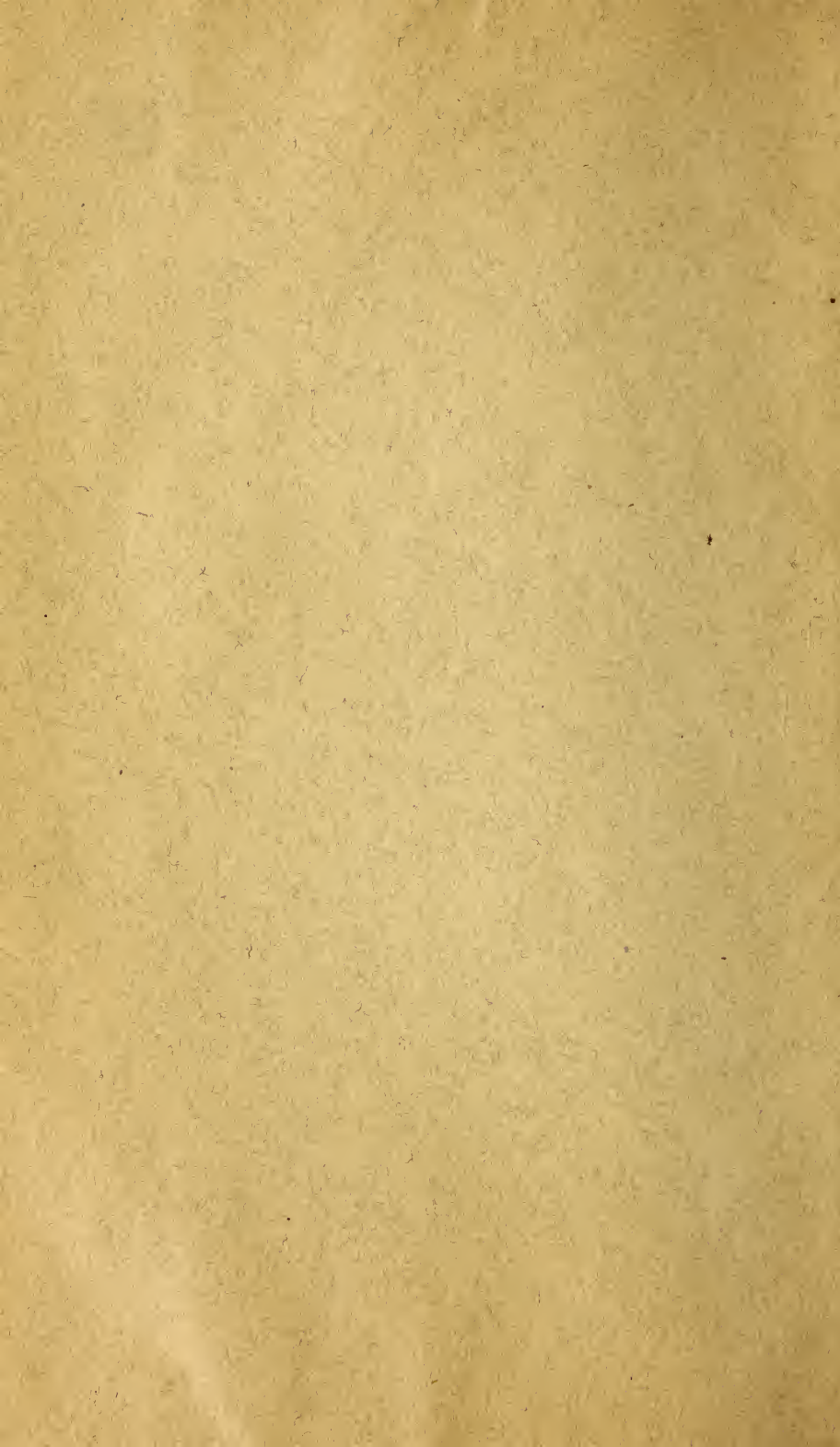
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GENERAL ZOOLOGY

or

SYSTEMATIC NATURAL HISTORY

by

GEORGE SHAW, M.D. F. R. S. & c.

WITH PLATES

from the first Authorities and most select specimens

Engraved principally by

MR HEATH.

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VOL. I. Part 1.

MAMMALIA.

London Printed for G. Kearsley, Fleet Street

1800.

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Chapman

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# GENERAL ZOOLOGY.

VOLUME I.—PART I.

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*MAMMALIA.*

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LONDON.

PRINTED BY THOMAS DAVISON,  
WHITE-FRIARS.

1800.



pt. 1-11  
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## ADVERTISEMENT.

*IN the course of this work will be comprised the whole of what is termed Zoology, or the History of the Animal World. It will commence with Quadrupeds, and will proceed, in systematic order, through all the remaining branches, viz. Birds, Amphibia, Fishes, Insects, Vermes, Testaceous Animals, Zoophytes, &c. The number of volumes will probably amount to ten or twelve.*

*The Linnæan arrangement, with some occasional variations, will in general be pursued, as on the whole the most eligible; though his arrangement of Quadrupeds may to many appear, at first sight, not quite so easy and natural as that of Mr. Pennant.*



# MAMMALIA ;

OR,

## VIVIPAROUS QUADRUPEDS.

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**M**AMMALIA\*, or Viviparous Quadrupeds, are distributed by Linnæus into seven orders, viz. *Primates*, *Bruta*, *Feræ*, *Glires*, *Pecora*, *Belluæ*, *Cete*.

The *Primates* are remarkable for a nearer approach to the human form than is exhibited in the other quadrupeds. The Bats, however, which are by Linnæus ranked in this order, differ greatly from the rest. The principal character of the *Primates* consists in the teeth, which, except in the Bats, strongly resemble the human.

The *Bruta* have no front or cutting-teeth, either in the upper or under jaw: their feet are armed with strong claws; their pace is, in gene-

\* So named from being provided with *mammæ*, or *teats*, for the purpose of suckling their young; which circumstance sufficiently distinguishes them from all other animals. Some naturalists have called them *viviparous quadrupeds*; as producing perfectly-formed living young; in opposition to what were formerly termed *oviparous* or egg-producing quadrupeds, as Tortoises, Lizards, &c. &c.

ral, somewhat slow, and their food is principally vegetable.

The *Feræ* have generally six cutting-teeth of a somewhat conical shape, both in the upper and under jaw: these are succeeded by strong and sharp fangs, or canine-teeth; and the grinders are formed into conical or pointed processes. This tribe is predacious, living principally on the flesh of other animals: the feet are armed with sharp claws.

The *Glires* are furnished with two remarkably large and long fore-teeth both above and below; but have no canine, or sharp lateral teeth: their feet are provided with claws, and their general pace is more or less salient or leaping: their food is vegetable; consisting of roots, barks, fruits, &c.

The *Pecora*, among which are comprised what are commonly termed cattle, have no front teeth in the upper jaw, but several, viz. six or eight, in the lower: their feet are furnished with cloven or divided hoofs: their food is entirely vegetable, and they possess the remarkable power of rumination, or throwing up again into the mouth the food they have first swallowed, in order that it may be still farther reduced or comminuted by the teeth. This remarkable process is assisted by the peculiar structure of the stomach, which, in these animals, is divided into four cavities, each having its peculiar office.

The *Belluæ* have obtuse front-teeth; the feet are furnished with hoofs, in some whole or round-





London, 1800 Feb<sup>ry</sup>. Published by G. Kearsley, Fleet Street.



ed, in others obscurely lobed or subdivided : their food is vegetable.

The *Cete* consist of the Whales, which, though resembling fishes as to general form or outline, are real Mammalia in disguise ; having similar bones, lungs, teats, &c. &c. Their teeth are frequently less osseous than in other Mammalia. They feed on soft marine animals and vegetables, and swim chiefly by means of their pectoral or breast fins, in which are inclosed the bones of the fore-feet. Their tail is horizontal, and they are furnished with breathing-holes on the top of the head, through which they occasionally spout the water.

The teeth forming a principal mark of distinction in the Linnæan arrangement of Quadrupeds, it is necessary to have a clear idea of the position of these organs. This will readily be obtained from an inspection of the annexed plate, in which, as the principal example, are represented the human teeth.

The *front-teeth* are termed *cutting-teeth*, *dentes primores*, or *incisores*. The single, and more sharply formed teeth on each side of these are called *canine-teeth*, *dentes canini*, or *laniarum*. The remaining teeth are termed *grinders*, or *grinding-teeth*, *dentes molares*.

The general history of Quadrupeds has been so often detailed in the various works on Natural History, that a fresh publication on the subject must of necessity labour under peculiar disadvantages. The valuable works of the Count de Buf-

fon and Mr. Pennant have diffused such a degree of information on these subjects, that it does not seem an easy task to improve upon their plan otherwise than by the introduction of the Linnæan method of arrangement, the rectification of errors relative to synonyms, the addition of proper specific characters, and the introduction of new species; more particularly those which have been lately introduced to the knowledge of European naturalists from the vast island of Australasia or New Holland, and which seem to exceed in singularity of form and character those of every other region of the globe.

Of the *generic* and *specific* characters, but more particularly the latter, it should be observed, that implicit faith is not always to be placed in them. They are highly useful in a general view, but should merely be regarded in that light, and cannot be considered as in every instance strictly and absolutely exact. It is farther to be observed, that the English specific characters in the present work are commonly so rendered as to be somewhat fuller or more particular than the Latin; from which it will also be perceived, that they occasionally vary a little. This was necessary, in order to accommodate them to the purpose of general readers.

With respect to figures, those highly important accompaniments to a work of this kind, no care has been spared to give such as convey the clearest and most accurate ideas of the animals themselves. Where Buffon's figures were judged

unexceptionable, they have been admitted : others are introduced from publications of the first respectability, from original drawings, or from those rich repositories of science, the British and Leverian Museums.

The talents of the engraver to whose care they have been committed are too well known to require particular commendation.

The remaining volumes will be published in regular order, and with as much dispatch as is consistent with the accuracy required in a systematic work on Natural History.

ERRATA.—PART I.

- Page 14, l. 3, in the synonyms, for Gen *read* Gesn.  
36, l. 5, after brown place a comma.  
70, l. 5, for Lemurmūrinus *read* Lemur murinus.  
72, l. 20, instead of a comma after *only one* place a period.  
74, l. 10, for limbs of the tail *read* limbs, with the tail.  
78, in the specific character of Antigua Monkey, l. 2, for *barbatii read*  
barbatis, and for *prehensils read* prehensili.  
67, l. 8, for other *read* of the.  
137, in the English specific character for *abtuse read* obtuse.  
142, l. 7, for *perspillatus read* perspicillatus  
177, l. 27, for Myrecophaga *read* Myrmecophaga.  
167, in the Latin specific character, for *tetradactylis read* tetradactylis.  
227, l. 14, for 1563 *read* 1653.  
235, l. 11, for the *read* their.  
235, l. 14, for it latitude *read* in latitude.

# C O N T E N T S

OF

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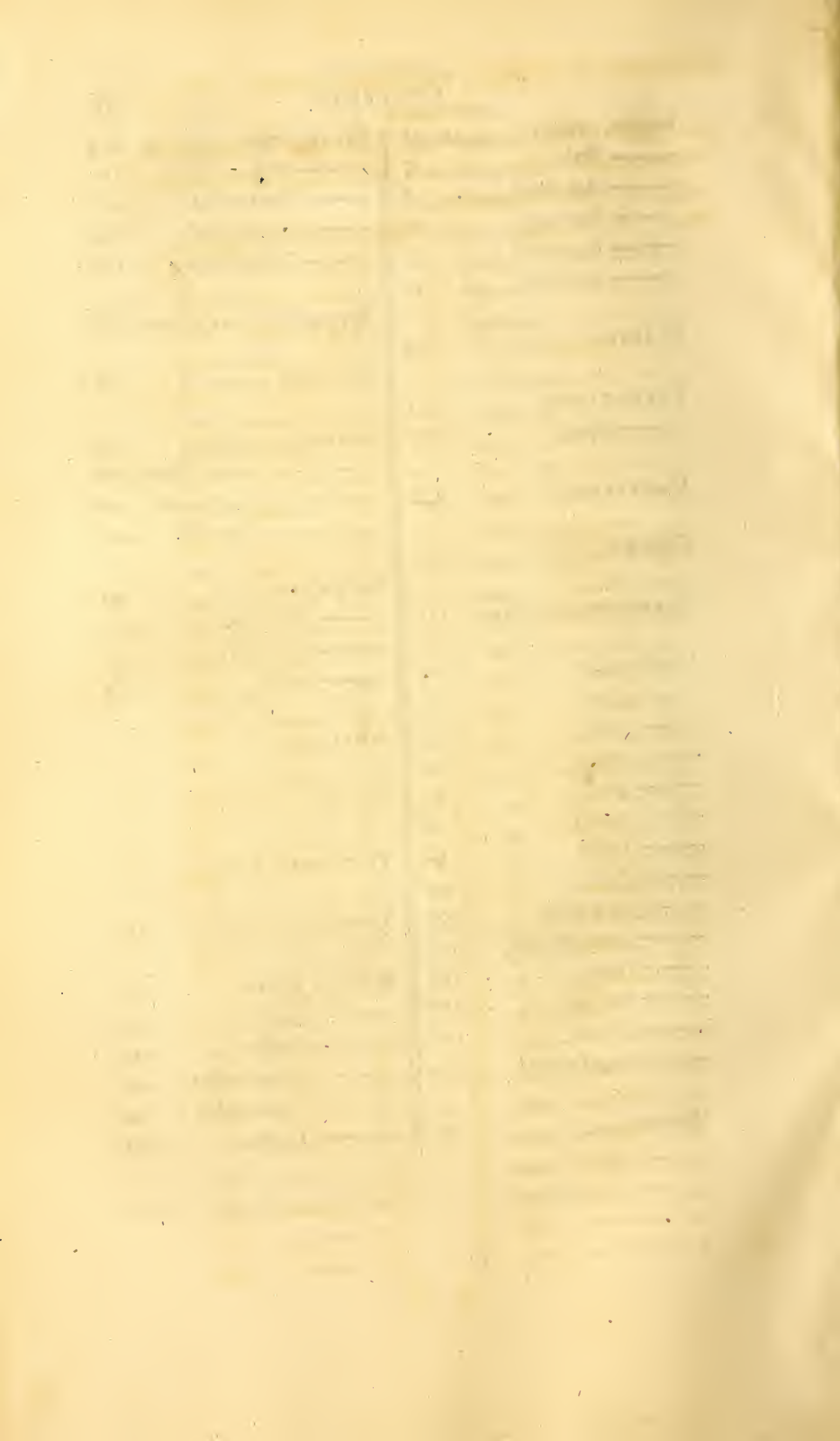
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Smith sculp.

ORAN O TAN, *Allan. Buff. &c.*

# QUADRUPEDS.

ORDER

PRIMATES.

=====  
SIMIA. APE.

*Linnaean Generic Character.*

<i>Dentes primores utrinque 4, approximati.</i>	<i>Front-teeth</i> in each jaw 4, placed near together.
<i>Laniarii solitarii, longiores, hinc remoti.</i>	<i>Canine-teeth</i> solitary, longer than the others, distant from the remaining teeth, or grinders.
<i>Molares obtusi.</i>	<i>Grinders</i> obtuse.

**T**HIS numerous race may be properly divided into four sections, viz. 1. *Apes*, or such as are destitute of a tail. 2. *Baboons*, or such as have very muscular bodies, and whose tails are commonly short. 3. *Monkies*, whose tails are, in general, long: and, lastly, *Sapajous*, or monkies, with what are termed *prehensile tails*, viz. such as can, at pleasure, be twisted round any object, so as to answer the purpose of an additional hand to the animal.

Of the whole genus, or the monkey tribe in general, it may be observed, that the Baboons are commonly of a ferocious and sullen disposition. The larger Apes are also of a malignant temper, except the Oran Otan and the Gibbons. The Monkeys, properly so called, are very various in their dispositions; some of the smaller species are lively, harmless, and entertaining; while others are as remarkable for the mischievous malignity of their temper, and the capricious uncertainty of their manners.

It may not be improper here to observe, that it is no easy task to determine with exact precision the several species of this extensive genus; since, exclusive of the varieties in point of colour, they are often so nearly allied as to make it difficult to give real distinctive characters. To this must be added, the mutilations which occasionally occur in the specimens preserved in museums, or exhibited in public, and which, of course, are liable to deceive an inexperienced eye, and even to embarrass the most expert and sagacious naturalist. To circumstances like these are owing the figure of the *Mantegar*, or tufted Ape, in the first and second editions of Mr. Pennant's History of Quadrupeds. The figures in authors are not always to be trusted: those in the Natural History of the Count de Buffon are, in general, good. Those of Schreber are copied from them, and coloured, seemingly, from description.

## ORAN OTAN.

*Simia Satyrus.* } *S. ecaudata, ferruginea, lacertorum pilis reversis, natibus tectis.* *Lin. Syst. Nat. p. 33.*  
*Homo Troglodytes.* } *Gmel. p. 26.*

Tailless Ape, either chesnut-coloured or black, without callosities behind, and with the hair on the lower part of the arms reversed.

*Satyrus Indicus.* *Tulp. Obs. Med. p. 284. t. 14.*

*Homo Sylvestris.* *Orang-Otang. Bont. Fav. 84. t. 84.*

Orang-Outang, sive *Homo Sylvestris.* *Tyson. anat. pygm. f. 1. 2.*

Jocko. *Buff. 14. p. 43. t. and suppl. 7. t. 1. ex ed Allamand.*

Man of the Woods. *Edwards pl. 213.*

Orang-Otang. *Vosmaer. descr. Sc. t. 1. 2.*

Orang-Otang. *Camper kort bericht, Sc. Amst. 1778.*

Great Ape. *Pennant Quadr. ed. 3. p. 80. pl. 36.*

OF these singular animals, the species which has most excited the attention of mankind is, the Oran Otan, or, as it is sometimes called, the Satyr, great Ape, or Man of the woods. It is a native of the warmer parts of Africa and India, as well as of some of the Indian islands, where it resides principally in woods, and is supposed to feed, like most others of this genus, on fruits. The Oran Otan appears to admit of considerable variety in point of colour, size, and proportions; and there is reason to believe, that, in reality, there may be two or three kinds, which, though nearly approximated as to general similitude, are yet specifically distinct. The specimens imported into Europe have rarely exceeded the height of two or three feet, and were supposed to be young animals; but it is said that the full-grown ones are, at least, six feet in height. The general colour

seems to be dusky or brown ; in some ferruginous or reddish brown, and in others coal-black, with the skin itself white. The face is bare ; the ears, hands, and feet nearly similar to the human, and the whole appearance such as to exhibit the most striking approximation to the human figure. The likeness, however, is only a general one, and the structure of the hands and feet, when examined with anatomical exactness, seems to prove, in the opinion of those most capable of judging with accuracy on the subject, that the animal was principally designed by nature for the quadrupedal manner of walking, and not for an upright posture, which is only occasionally assumed, and which, in those exhibited to the public, is, perhaps, rather owing to instruction than truly natural. The Count de Buffon, indeed, makes it one of the distinctive characters of the real or proper apes (among which the oran otan is the chief), to walk erect on two legs only ; and it must be granted, that these animals support an upright position much more easily and readily than most other quadrupeds, and may probably be very often seen in this attitude even in a state of nature.

The manners of the Oran Otan, when in captivity, are gentle, and perfectly void of that disgusting ferocity so conspicuous in some of the larger baboons and monkies. The Oran Otan is mild and docile, and may be taught to perform, with dexterity, a variety of actions in domestic life. Thus it has been seen to sit at table, and, in its manner of feeding and general behaviour, to







BLACK ORAN-OTAN. *from Tyson.*

imitate the company in which it was placed: to pour out tea, and drink it without awkwardness or constraint; to prepare its bed with great exactness, and compose itself to sleep in a proper manner. Such are the actions recorded of one which was exhibited in London in the year 1738; and the Count de Buffon relates nearly similar particulars of that which he saw at Paris. Dr. Tyson, who, about the close of the last century, gave a very exact description of a young Oran Otan, then exhibited in the metropolis, assures us, that, in many of its actions, it seemed to display a very high degree of sagacity, and was of a disposition uncommonly gentle; *The most gentle and loving creature that could be. Those that he knew a ship-board he would come and embrace with the greatest tenderness, opening their bosoms, and clasping his hands about them; and, as I was informed, though there were Monkies aboard, yet it was observed he would never associate with them, and, as if nothing akin to them, would always avoid their company.*

But however docile and gentle when taken young, and instructed in its behaviour, it is said to be possessed of great ferocity in its native state, and is considered as a dangerous animal, capable of readily overpowering the strongest man. Its swiftness is equal to its strength, and for this reason it is but rarely to be obtained in its full-grown state; the young alone being taken. A few years past, the hand of a supposed full-grown oran otan was brought from Sierra Leona, which, from its size, seemed to justify the idea of the stature to

which this species is supposed to grow: it was of a black colour, and, consequently, belonged to the black variety of this species; or that described in a young state by Dr. Tyson.

It is remarkable that the large hand represented in professor Allamand's edition of the Natural History of the Count de Buffon, as that of an Oran Otan, proved, according to Camper, who examined it accurately, to have been an artificial preparation, made by distorting and otherwise altering the fore-foot of some large quadruped; most probably that of a bear, in the opinion of Camper; and the nails were glued into the places where the claws had been. Such are the deceptions to which even the most experienced naturalists are sometimes liable! This hand became the subject of private controversial correspondence between professors Allamand and Camper. At length its proprietor, Mr. Vink of Rotterdam, permitted it to be opened, when the opinion of Camper was found to be just; the whole preparation being composed of bones, hair, skins, &c. nicely agglutinated and compacted, with the addition of nails at the extremities.

The hand, however, which was brought from Sierra Leona, was undoubtedly genuine, and the whole skin of the animal is, at present, in the possession of Mr. A. Afzelius, demonstrator of botany in the university of Upsal; but its full description and figure having never been published, it is impossible to pronounce, with certainty, the species to which it belongs.





ORAN OTAN. Vosmaer.

Mr. Vosmaer's account of the manners of an Oran Otan brought into Holland in the year 1776, and presented to the Prince of Orange's menagerie, is so curious and satisfactory, that I shall extract it from his accurate publication on that subject; and shall also accompany it by two excellent figures of the animal, with which he has illustrated his work; and these, together with an accurate copy of the young Pongo, described and figured by Dr. Tyson under the name of the pygmy; and of that preserved in the British Museum, figured by Edwards; and, lastly, the elegant and expressive representation of M. Allamand, in his edition of Buffon, will, it is presumed, give the clearest and most satisfactory ideas of these extraordinary animals, which the present state of our knowledge on the subject will permit us to obtain.

This animal, says M. Vosmaer, was a female: its height was about two Rhenish feet and a half. It shewed no symptoms of fierceness or malignity, and was even of a somewhat melancholy appearance. It was fond of being in company, and shewed a preference to those who took daily care of it, of which it seemed to be sensible. Often when they retired it would throw itself on the ground, as if in despair, uttering lamentable cries, and tearing in pieces the linen within its reach. Its keeper having sometimes been accustomed to sit near it on the ground, it took the hay of its bed, and laid it by its side, and seemed, by every demonstration, to invite him to be seated near.

Its usual manner of walking was on all-fours, like other apes; but it could also walk on its two hind feet only. One morning it got unchained, and we beheld it with wonderful agility ascend the beams and rafters of the building: it was not without some pains that it was retaken, and we then remarked an extraordinary muscular power in the animal; the assistance of four men being necessary, in order to hold it in such a manner as to be properly secured. During its state of liberty it had, amongst other things, taken the cork from a bottle containing some Malaga wine, which it drank to the last drop, and had set the bottle in its place again. It eat almost every thing which was given it; but its chief food was bread, roots, and especially carrots; all sorts of fruits, especially strawberries: and appeared extremely fond of aromatic plants, as parsley and its root. It also eat meat, both boiled and roasted, as well as fish. It was not observed to hunt for insects like other monkeys; it was fond of eggs, which it broke with its teeth and sucked completely; but fish and roast meat seemed its favourite food. It had been taught to eat with a spoon and a fork. When presented with strawberries on a plate, it was extremely pleasant to see the animal take them up, one by one, with a fork, and put them into its mouth, holding, at the same time, the plate in the other hand. Its common drink was water; but it also very willingly drank all sorts of wine, and particularly Malaga. After drinking it wiped its lips, and after eating, if presented with a tooth-pick,



would use it in a proper manner. I was assured, that on shipboard it ran freely about the vessel, played with the sailors, and would go, like them, into the kitchen for its mess. At the approach of night it lay down to sleep, and prepared its bed by shaking well the hay, on which it slept, and putting it in proper order, and, lastly, covering itself warm with the coverlet. One day, seeing the padlock of its chain opened with a key, and shut again, it seized a little bit of stick, and put it into the key-hole, turning it about in all directions, endeavouring to see whether the padlock would open or not. This animal lived seven months in Holland. On its first arrival it had but very little hair, except on its back and arms: but on the approach of winter it became extremely well covered; the hair on the back being three inches in length. The whole animal then appeared of a chesnut colour; the skin of the face, &c. was of a mouse colour, but about the eyes and round the mouth of a dull flesh colour.

It came from the island of Borneo, and was deposited in the museum of the Prince of Orange.

Upon the whole, it appears clearly that there are two distinct species of this animal, viz. the *Pongo*, or *great black Oran Otan*, which is a native of Africa, and the *reddish brown or chesnut Oran Otan*, called the *Jocko*, which is a native of Borneo and some other Indian islands. This latter, as appears from a collation of most of the specimens which have been surveyed with the necessary degree of exactness, is distinguished by

having no nails on the great toes. Whereas, in the *Pongo*, or black species, they are conspicuous. In one specimen, however, of the *Jocko*, M. Camper observed a very small nail on the great toe of one foot only; the other being without; but as the toe which had the nail differed from that of the opposite foot, in having an additional joint, M. Camper considered it as a *lusus naturæ*. The figures given by Dr. Tyson and the Count de Buffon represent the black oran otan, or *Pongo*, though the Count de Buffon's figure is, by a mistake, entitled *Jocko*. It was drawn from the young animal in a living state; but it is acknowledged in the supplemental volume, published by Mr. Cedepe, that the artist has overcharged it in some particulars. Mr. Edwards's figure represents the *Jocko* or chesnut-coloured species, and is, in one point, erroneous, viz. in representing the great toes furnished with nails; which, as before observed, are wanting in this animal.\* I must also add, that, in most of the copies of Mr. Edwards's work, the Oran Otan is coloured somewhat too light: the face, neck, and hands, in particular, which should have a slight wash of Indian ink, in order to produce the proper shade of brown; and a more dusky cast should also pervade the whole figure, as appears clearly from the original drawing now preserved in the British Museum.

\* This particular in our representation, from Edwards's original drawing in the British Museum, is properly corrected.



CHESNUT ORAN OTAN. *from Edwards.*



In Dr. Gmelin's edition of the *Systema Naturæ*, the smaller variety, or the Jocko in its less shaggy or more naked state, is given as a distinct species, under the name of *Simia Troglodytes*. The print published many years past, by the name of *Chimpanzee*, is of this kind; as is, perhaps, the figure in Tulpius.

The animal described in the *Philosophical Transactions*, vol. 59. p. 72. pl. 3. is by Gmelin, in his edition of the *Systema Naturæ*, referred to the Oran Otan; but Mr. Pennant, in the last edition of his *History of Quadrupeds*, seems to consider it as perfectly distinct, and describes it under the title of Golock. It has a pointed face; long and slender limbs; arms, when the animal is upright, not reaching lower than the knees; head round and full of hair; grows to the height of a man. Inhabits the forests of Mevat in the interior parts of Bengal. In its manners is gentle and modest; called by the natives golock, or the wild man; distinguished from the Oran Otan by its slender form; and from the Gibbon by its having much shorter arms: colour entirely black. The short description given in the *Philosophical Transactions* is somewhat singular: The animal is said to be of the height of a man; the teeth white as pearls; the arms in due proportion, and the body very genteel.

## LONG-ARMED APE.

Simia Lar. *S. ecaudata, natibus calvis, brachiis longitudine corporis.*  
*Lin. Syst. Nat. Gmel. p. 2.*

Tailless black Ape (sometimes white), without callosities behind, and with arms as long as the body.

Homo Lar. *Lin. Mantiss. pl. 2. p. 521.*

Simia Longimana. *Schreber Saecugh. t. 3. f. 1.*  
*Miller Cimelia Physica. t. 27.*

Grand Gibbon. *Buff. Hist. Nat. 14. t. 2.*

Long-armed Ape. *Pennant Quadr. p. 184.*

## VAR.

Petit Gibbon. *Buff. Hist. Nat. 14. t. 3.*

Simia Longimana. *Museum Leverianum. 2. t. 1.*

THIS is a species of a more deformed appearance than the Oran Otan, and is distinguished by the excessive length of its arms, which, when the animal stands upright, are capable of touching the ground with the fingers. It is a native of India and some of the Indian islands, and grows to the height of four feet or more. Its colour is black; but the face is commonly surrounded by a whitish beard. This animal is well figured in Buffon; and a smaller variety is finely represented in Mr. Millar's miscellaneous plates of Natural History.

VARIETY.—*White gibbon.* This is generally considered as a variety of the former; from which it differs in being entirely white, except the face and hands, which are black. In the Leverian Museum is a most elegant specimen, which is figured in No. 2 of the *Museum Leverianum*. Our present figure is also from the same specimen. What seems to prove this to be a variety of the black



*Heath sculp<sup>t</sup>*

LONG-ARMED APE .







LONG-ARMED APE.

*White Variety.*







BARBARY APE.

gibbon, above-described, is, that a patched or parti-coloured small variety of that animal is sometimes seen, and is figured in the Count de Buffon's work, having the lower part of the back and the feet white, while the rest of the animal is of a deep brown. The larger kind is also represented by Buffon with whitish hands and feet.

Notwithstanding the apparent ferocity of the Gibbon, and the deformity of its figure, it is of a more tractable and gentle nature than most of its tribe, and has even been celebrated for the decorum and modesty of its behaviour. Considered with respect to the rest of the genus it ranks among the genuine Apes, or those which have not the least vestige of a tail, and, like the *Oran Otan*, alarms the pride of mankind by too near an approach to the real *Primates* of the creation. Nay, Linnæus, in his description referred to in the synonyms, actually places it in the genus *Homo*, under the title of *Homo Lar*.

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BARBARY APE.

*Simia Inuus. S. ecaudata, natibus calvis, capite oblongo. Lin.*

Tailless pale-brown Ape, with callosities behind, and with an oblong head.

*Simia Inuus. Speculum Linnæanum, 1. t. 1.*

Magot. *Buff. 14. t. 8. 9.*

Barbary Ape. *Pennant Quadr. p. 186.*

THIS, which is the species of ape most commonly seen in exhibitions of animals, grows to the height of about four feet. It is not remarkable

for docility or good temper; but, by force of discipline, is made to exhibit a greater degree of intelligence than many others. Its colour is an olivaceous brown, paler or whiter beneath: the face is of a swarthy flesh colour. The hands and feet have nails resembling the human, as in the two former species. It is also destitute of any real tail, but there is commonly a short skinny appendix in the place of one. This animal is found in Barbary, as well as in many of the lower parts of Africa.

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 PYGMY.

*Simia Sylvanus. S. ecaudata, natibus calvis, capite subrotundo, brachiis brevioribus. Lin.*

Tailless pale-brown Ape, with callosities behind, and with a roundish head.

*Simia. Gen. Quadr. 847. Raii syn. Quadr. 149.*

*Cercopithecus. Jonst. Quadr. t. 59. f. 5.*

*Pitheque. Buff. Nat. Hist. 14. p. 84. and supp. 7. t. 2. 3. 4. 5.*

*Pygmy Ape. Pennant Quadr. p. 183.*

VAR.?

*Alpin. Hist. Nat. Ægypt. t. 20. f. 1.*

THIS is the smallest of the genuine Apes or those destitute of tails. In its general appearance, as well as in colour, it extremely resembles the Barbary Ape; but is not larger than a cat, and has a rounder or flatter face than the Barbary Ape. This is supposed, by Mr. Pennant, to have been the Pygmy of the ancients, which was said to wage war, at certain seasons, with the cranes. It



*Smith sculp.*

PYGMY APE.





is a native of Æthiopia, where it is most common ; but it is also found in other parts of Africa. It is easily tamed, and is much more docile and gentle than the former species.

In the supplemental part of the Count de Buffon's Natural History, we also meet with a seeming variety of the Pygmy, which is said to differ in having no callosities or bare spaces behind. Mons. Buffon thinks it a distinct species, and observes, that it has been described by no one except Prosper Alpinus, who has given a figure of it. The figure given in Buffon's work is from a drawing sent to him by Mr. Peter Collinson. The hair is said to be red. The face seems, in the engraving, to be represented of a dark colour ; and the general appearance is so perfectly that of the Pygmy, that the particular difference is scarce perceptible. The figure referred to in Prosper Alpinus is at pl. 20. fig. 1. of his Hist. Nat. Ægypt. That given by Buffon is copied in the present work.

We now proceed to the second division of this genus, or that containing the *Baboons*.

Much confusion seems to have prevailed among naturalists with respect to the different species of Baboons, and the synonymous names of authors have been erroneously given, not only in the twelfth edition of the Systema Naturæ of Linnæus, but in the History of Quadrupeds by Mr. Pennant and others. We shall begin with the species most commonly seen in exhibitions of animals.

## COMMON BABOON.

*Simia Sphinx.* *S. semicaudata, ore vibrissato, unguibus acuminatis, natibus calvis.* *Lin.*

Short-tailed brown Baboon, with callosities behind, and with dull flesh-coloured face and pointed nails.

Papio. Baboon. *Gesn. Quadr.* 252. *Aldrov. dig.* 260. *Fonst. Quadr.* 145. *t.* 61. *f.* 1. *Raii Quadr.* 158. *Briss. Quadr.* 192.

Papion. *Buff.* 14. *t.* 13. 14.

Mottled Baboon. *Pennant Quadr.* 197.

THIS is a species of very considerable size, and when in a sitting posture, is from three to four feet in height. It is extremely strong and muscular in its upper parts, and slender towards the middle; but this is the general shape of all the true Baboons: its colour is an uniform greyish brown, paler beneath; the hairs on the upper parts, if narrowly inspected, appear as if mottled; the face is long, and of a tawny flesh colour; the eyes appear as if sunk into the head or very deeply seated, and are of a hazel colour. The hands and feet have strong, blunt claws; but the thumbs of the hands have rounded nails. The tail is very short. This is certainly the Sphinx of Gesner, the synonyms to which are erroneously applied both by Linnæus and Mr. Pennant. In Gmelin's edition of the *Systema Naturæ* they are rectified. This also seems to be the species intended by the Count de Buffon, and figured in his *Natural History*. It is ferocious in its manners, and its appearance is, at once, grotesque and formidable. The region surrounding the tail, to a considerable distance on each



*Smith sculp*

COMMON BABOON







*Heath sculp.*

VARIEGATED BABOON.

side, is perfectly bare and callous, and of a red colour: this is also common, in a greater or smaller degree, to the rest of this division. It is a native of the island of Borneo.

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VARIEGATED BABOON.

*Simia* Mormon. *S. semicaudata subbarbata nigro-fusca, malis tumidis nudis cyaneis, oblique striatis, natibus calvis sanguineis.* Lin. *Syst. Nat. Gmel.*

Short-tailed tawny-brown Baboon, with callosities behind, naked tumid violet-blue cheeks obliquely furrowed, and the middle of the nose blood-red.

*Alstroemer Act. Holmiens.* 1766. vol. 27. p. 138.

Mantegar. *Philos. Trans. n.* 220. *Bradley nat.* 117. t. 15. f. 1.

Chloras. *Breslaner Natur-u Kunstgesch.* 15. vers. 177.

Great Baboon. *Pennant Quadr.* 188. t. 40. 41.

Variiegated Baboon. *Museum Leverianum. No. 1. p. 35. t. 9.*

THIS is at least equal in size, if not superior, to the former, and, when in an upright posture, is about five feet high. It is the most remarkable of the whole genus for brilliancy and variety of colour. The general tinge is a rich and very deep yellowish-brown; the hairs, if viewed near, appearing speckled with yellow and black. The form of the face is long, with the snout ending somewhat abruptly: the whole length of the nose, down the middle, is of a deep blood-red; but the parts on each side are of a fine violet-blue, deeply marked by several oblique furrows. The remainder of the face is of a pale whitish-yel-

low. On the top of the front the hair rises, in a remarkable manner, into a pointed form, and beneath the chin is a pointed beard of a light orange-yellow. Round the back of the neck the hair is much longer than in other parts, and inclines downwards and forwards, somewhat in the manner of a wreath or tippet. The hair on this part has also a slight tinge of violet-brown. The breast and lower parts of the body are of a whitish colour. Round the region of the loins the skin is almost bare, and of a most beautiful violet-blue, gradually altering into a vivid vermilion, which is more conspicuous on the hinder parts, where it surrounds the tail, which is extremely short, or scarce apparent. The hands and feet are of a dusky colour, and are furnished with broad but pointed claws. It is a native of the interior parts of Africa; but it is said to have been also brought from India. In the Leverian Museum is a most capital specimen of this Baboon, of which a general figure is given in Mr. Pennant's History of Quadrupeds; but a much more elegant and accurate one may be found in the Museum Leverianum.

A disfigured specimen of this curious animal, altered by cropping away the hair on the head and other parts, seems to have given rise to the description by Dr. Bradley, and that in the Philosophical Transactions, vol. xxiv. p. 1571, from whence it was inserted, by Mr. Pennant, into the first edition of his History of Quadrupeds, under the title of



the tufted Ape, and, as usual in such cases, has been thence transferred into some other works\*.

The variegated Baboon is of a fierce disposition, and extremely muscular and strong. Its voice somewhat resembles the slight roar of a lion: it is a rare species, and is not often imported into Europe. Mr. Pennant observes, that its posture, when walking, is a proof of the excellency of Gesner's figure, which, from its singularity of appearance, had often been thought erroneous; but it is certain that Gesner's figure represents the common or brown Baboon, and the general outline of the body is nearly the same in both.

\* In the drawing, which is a very indifferent one, now preserved in the British Museum, not only the nose, on each side, but also the bare part of the forehead, even to some distance beyond the ears, is represented of a fine blue; and the ridge and tip of the nose red. Upon the whole, I believe there can remain but little doubt of its having been made either from a disfigured specimen, or else hastily and erroneously drawn in some particulars, and, perhaps, coloured afterwards from recollection. The whole upper part of the animal is coloured grey-brown; and the whole under part dull flesh colour; seeming quite void of hair, as well as the insides of the limbs. In the same volume of drawings are also two other representations, evidently intended for the same animal: they are rather better painted than the former, but with the same particularities.

## MAIMON.

*Simia Maimon. S. semicaudata subbarbata, genis cæruleis striatis, natibus calvis. Lin. Syst. Nat. Gmel.*

Short-tailed olive-brown Baboon, with callosities behind, naked violet-blue furrowed cheeks, and the middle of the nose flesh-coloured.

Mandrill. *Buff. 14. t. 16. 17.*

Ribbed-nose Baboon. *Pennant Quadr. p. 190.*

Maimon. *Schreber. 1. t. 7.*

Maimon. *Speculum Linnæanum. No. 1. t. 2.*

THE synonyms between this species and the former are commonly confounded. It is described by the Count de Buffon under the name of Mandrill. He seems to have seen an unhealthy specimen, since he describes it as dull, heavy, and, at the same time, disagreeably dirty in its appearance. On the contrary, it is an active animal, and seems far less indocile and malignant than the rest of the Baboons. The general likeness which it bears to the former species, is such as to give the idea of the same animal in a less advanced state of growth, and with less brilliant colours; the nose, instead of being red on its upper part, is merely flesh-coloured; but the sides are blue and furrowed, as in the former species. There is, however, no appearance of the crimson and blue tinge round the loins; and the general colours are less bright. The chin, as in the former species, is furnished with a small sharp-pointed beard of a pale orange colour. The feet are armed with claws, and have no flattened nails.



MAIMON.



This Baboon is not uncommon in exhibitions of animals. Its length, from nose to tail, is about two feet. Tail exactly as in the former.

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HOG-FACED BABOON.

*Simia porcaria. S. semicaudata, capite suillo, rostro nudo, corpore fusco-olivaceo, natibus tectis, unguibus acuminatis. Lin. Syst. Nat. Gmel. Boddaert Naturf. 22. p. 17. t. 1. 2.?*

Short-tailed brown Baboon, covered behind, with black naked hog-like face, and pointed nails.

Hog-faced Baboon. *Penn. Quadr. p. 187.?*

THIS animal is described by Dr. Boddaert, in a German work, entitled *Der Naturforcher*. It is said to be three feet six inches in length: its colour is a deep olive-brown; the face large and black; the nose truncated at the end, somewhat like that of a hog: the nails are sharp: the tail appears, from the figure, to be about the length of the leg, from the knee to the foot: there are no bare spaces behind; but the lower part of the abdomen seems bare, and of a dull flesh colour. On a general view it seems not unlike the Wood Baboon, except in the greater length of the tail. Dr. Boddaert imagines it to have been the *χοιροπιθηκος* of Aristotle. It is said to be a native of Africa. The Hog-faced Baboon of Mr. Pennant appears to be a very different species, and was introduced into the *History of Quadrupeds* on the authority of a drawing in the British Museum; but as he has given no description of its colour, it is necessary

to observe, that the prevailing cast of the figure is a dull olive-brown, paler beneath; with a face exactly resembling that of the S. Mormon, of which I take it to be a bad general representation. The memorandum under the drawing states it to have been two feet and a half high.

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WOOD BABOON.

*Simia Sylvicola. S. semicaudata griseoferruginea, facie manibus pedibusque nigris, natibus calvis. Museum Leverianum. No. 5. p. 201. t. 1.*

Short-tailed ferruginous-brown Baboon, with callosities behind, and with black naked face hands and feet.

Wood Baboon. *Pennant Quadr. p. 191. pl. 42.*

Le Babouin des bois. *Buff. Hist. Nat. suppl. tom. 7. p. 39. pl. 7.*

THIS species is very finely figured in the Museum Leverianum. It is of a robust frame, and is in height about three feet. Its general colour is a sort of ferruginous greyish-brown, owing to the alternate blackish and ferruginous rings with which every individual hair is marked, and which give a kind of freckled appearance to the whole. The face, hands, and feet, are black; the nails on the hand longish, but rounded at their extremities; those on the toes somewhat longer and more acuminate. The space on each side the tail is large, bare, and red. The tail scarce three inches in length. It is an African species, and is said to be principally found in Guinea.



WOOD BABOON.





## YELLOW BABOON.

*Simia Sublutea.* *S. semicaudata sublutea nigro irrorata, facie nigra nuda, manibus supra pilosis.*

Short-tailed yellow Baboon, freckled with black, with naked black face, and hands hairy on their upper surface.

Yellow Baboon. *Pennant Quadr. p. 191.*

THIS, which Mr. Pennant describes from a specimen in the Leverian Museum, has a long, black face like the former, which it greatly resembles, except in being smaller, and of a brighter colour; the hair being bright-yellow, mottled with black. The hands, on their upper surface, are covered with hair, and over the eyes are some long dusky hairs. It is about two feet in length, and is supposed to be a native of Africa.

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 CINEREOUS BABOON.

*S. Cinerea.* *S. semicaudata cinerea, vertice flavo irrorato, facie fusca, barba pallida.*

Short-tailed cinereous Baboon, with the crown mottled with yellow; the face brown; the beard pale.

Cinereous Baboon. *Pennant Quadr. p. 97.*

ABOUT the size of the preceding: face dusky: beard pale brown: crown mottled with yellow: body and limbs cinereous-brown. It is supposed to be a native of Africa, and is in the Leverian Museum.

## BROAD-TOOTHED BABOON.

S. Dentata. *S. semicaudata. cinereo-ferruginea, facie subcœrulea, dentibus primoribus permagnis.*

Short-tailed ash-brown Baboon, with blueish face and very large fore-teeth.

Broad-toothed Baboon. *Pennant Quadr.*

WITH a blueish face; two very flat broad fore-teeth; a pale-brown beard; long hairs over each eye; a tuft of hair beyond each ear; the hair black and cinereous, mixed with dull rust colour. Length about three feet. Native country uncertain. In the Leverian Museum. Mons. Cedepe, in his additions to the Natural History of Count de Buffon, considers these three last animals as varieties of the Sylvicola or Wood Baboon.

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 BROWN BABOON.

S. Fusca. *S. semicaudata fusca, subtus cinerea, facie albida, naso lato, auriculis acuminatis, natibus calvis.*

Shortish-tailed brown Baboon, with callosities behind, a whitish face, and very broad nose.

Brown Baboon. *Pennant Quadr. p. 192.*

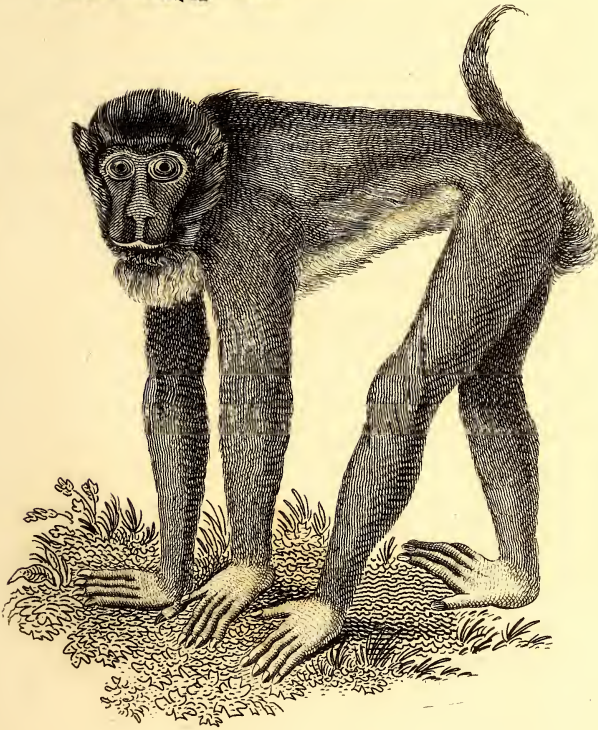
Simia Platypygos. *Schreb. Quadr. pl. 5. B. ?*

Babouin à longues jambes. *Buff. Hist. Nat. suppl. 7. p. 41. pl. 8.*

WITH pointed ears; face of a dirty-white; nose large and broad; hairs round the face short and straight; colour of the upper parts of the body brown; of the under ash colour. Tail about four



PURPLE-FACED MONKEY.



BROWN BABOON.







PIG-TAILED BABOON.

inches long; taper, and almost bare: beneath the tail quite bare.

This, according to Cepede, is the same with the Long-legged Baboon (*Babouin à longues jambes*) described in the additions to Buffon. The figure there given is the same with that in Mr. Pennant's *Quadrupeds*; but Mr. Cepede contends that the tail is represented much too long. The principal distinguishing character of the animal seems to be the great length of its limbs.

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PIG-TAILED BABOON.

*Simia Nemestrina*. *S. semicaudata subbarbata grisea, iridibus, natibus tectis.* *Lin.*

Olive-brown Baboon, with short naked tail.

Pig-tailed Monkey. *Edwards, pl. 214.*

Pig-tailed Baboon. *Pennant Quadr. p. 193.*

Le Maimon. *Buff. 14. t, 19.*

THIS is a small species, commonly about the size of a cat, but sometimes much larger. The face is somewhat pointed, of a swarthy flesh colour, and naked; the ears large and of a similar colour: the general colour of the animal is an olive-brown, paler or whitish beneath. The fingers are black; the thumbs on the hind feet very long, and connected to the nearest toe by a broad membrane. The tail is about four inches long, and exactly resembles that of a Pig. On each side the tail are bare spaces, as in other Baboons,

but smaller in proportion. This species is figured by Edwards, at plate 214 of his work on Natural History. Mr. Edwards informs us, that he carried his in order to compare it with a much larger one of the same species, to Bartholomew fair, and that "they seemed to be highly pleased with each other's company, though it was the first time of their meeting\*."

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CRESTED BABOON.

*S. semicaudata nigra, capillitio diffuso, pectore albido, facie manibusque nudis.*

Short-tailed black Baboon, with very long hair on the crown and cheeks, the breast whitish, the face and hands bare.

Crested Baboon. *Pennant Quadr. p. 193.*

WITH the hairs on the crown very long and dishevelled: those on the cheeks of the same form and of a dusky colour: breast whitish: rest of the body covered with long black hair; that on the limbs the same: face and feet black and bare: tail slender, taper, about seven inches long: whole length of the animal two feet. Inhabits India.

\* Edwards's figure, though, doubtless, a faithful representation of the individual specimen from which it was drawn (and which seems to have been a small or half grown one), represents the animal, with a face not sufficiently thick and large: the best figure is that of Buffon, which is, indeed, excellent. Buffon very properly observes, that, in its general appearance, except the pig-like tail, it so perfectly represents the Macaque, or *Cynomolgus*, that one might suppose it a variety of that species.



Described by Mr. Pennant from the specimen in the Leverian Museum.

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LITTLE BABOON.

*Simia Apedia. S. semicaudata, palmarum pollice approximato, unguibus oblongis: pollicum rotundatis; natibus tectis, Lin.*

Short-tailed yellowish Baboon, without callosities behind; with thumbs standing close to the fingers and furnished with rounded nails; the fingers with narrow ones.

Little Baboon. *Pennant Quadr. p. 192.*

THIS is said by Linnæus to be of the size of a Squirrel; but, in a description given in the *Amoenitates Academicæ*, it is said to be as large as a Cat. The general colour is yellowish; the hairs being tipped with black: face brown, with a few scattered hairs: head roundish; ears roundish and naked: tail scarce an inch long. No bare spaces on each side: the thumbs not remote from the fingers, and with rounded nails; those on the fingers narrow and compressed. Native of India: said to be a lively species.

The next Division of the Baboons consists of such as have long tails. Of these the chief is, the

## DOG-FACED BABOON.

*Simia Hamadryas. S. caudata cinerea, auribus comosis, unguibus acutiusculis, natibus calvois. Lin.*

Tailed grey Baboon, with callosities behind, sharpish claws, and the hair on each side the head very long.

*Simia supra aures comata. Alpin. Hist. Nat. Ægypt. p. 242. t. 17. 19.*

Dog-faced Baboon. *Pennant Quadr. p. 194.*

*S. Hamadryas. Grey Baboon. Speculum Linnæanum, 1. t. 3.*

Babouin a museau de chien. *Buff. suppl. 7. p.*

THIS species is of an elegant colour, composed of a mixture of grey and brown, the hair appearing as if speckled. It is a very large animal, at least equal, if not superior, in size to the common brown Baboon and the Mormon. It is remarkable for a vast quantity of flowing hair on each side the head, as well as round the shoulders, spreading in such a manner as to give the appearance of a short cloak or mantle. The whole face is naked and of a flesh colour, more or less deep in different individuals. The eyes are deeply seated, and of a chesnut colour. The bare spaces on each side the tail are very large, protuberant, and of a very bright flesh colour, or rather red. The tail is almost the length of the body, and is commonly a little tufted at the end. The nails on the hands or fore-feet are flat; those on the hind-feet resemble strong claws. This is a rare



DOG-FACED BABOON.



species in comparison with the Common Baboon ; and is a native of the hottest parts of Africa and Asia, where it is said to reside in vast troops, and to be very fierce and dangerous. There is a wonderful degree of sagacity in the countenance of this animal, and a kind of solemn contemplative disposition seems to be strongly indicated in its looks, when calm and undisturbed ; but when irritated, the most striking efforts of vindictive violence are immediately exhibited. It is also possessed of an uncommon degree of obstinate moroseness, surpassing most others of its tribe, and is, when in a state of confinement, of a disposition so rude and unquiet, and of manners so peculiarly indecorous as generally to frustrate all attempts to civilize and reclaim it.

A supposed variety of this species, called by Mr. Pennant the *Ursine Baboon*, is said to be not uncommon in the neighbourhood of the Cape of Good Hope ; of a dusky colour, and covered all over with long shaggy hair ; it is nearly of the size of a man : the head very large ; the nose long and thick ; the ears short and thick, and the crown of the head covered with long upright hair : the tail is of the length of the body, and the bare spaces on each side of a blood-red colour. This variety is said to inhabit the mountainous parts about the Cape, and to descend occasionally into the plains in order to pillage gardens and plantations.

The figure of the *S. Hamadryas*, in the *Speculum Linnæanum*, was a real portrait from an un-

commonly fine specimen exhibited in this metropolis; and is, therefore, here repeated, in order to give as complete an idea as possible of so remarkable a species.

The animal, mentioned by Mr. Pennant in the last edition of his History of Quadrupeds, under the title of the *Mottled Baboon*, seems to be no other than the great brown Baboon already described; and the smaller animal mentioned in the same article, and termed the *Little Baboon*, appears, as he has himself observed, to be no other than the young or half-grown specimen of the former.

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LION-TAILED BABOON.

*Simia Ferox. S. caudata barbata nigra, barba amplissima albida.*

*Museum Leverianum, p. 69.*

Tailed black Baboon, with very large whitish spreading beard.

*Cercopithecus barbatus niger, barba incana promissa. Raj.*

*Quadr. p. 158.*

*Simia Silenus? Lin. Syst. Nat.*

*Ouanderou. Buff. 14. p. 169. pl. 18.*

Lion-tailed Baboon. *Pennant Quadr. p. 198. pl. 44.*

THIS species is remarkable in its appearance. It is equal to a middle-sized dog, and is entirely coal-black; except the beard, which is extremely large, and either white or of a very light grey. It surrounds the face to a considerable distance, and gives an air of uncommon fierceness to the animal. The tail is of a moderate length, and is terminated by a tuft. The nails are flat; the teeth remarkably large and strong. It is very



LION-TAILED BABOON.





elegantly figured in the Museum Leverianum. It is a native of the East Indies, particularly of the island of Ceylon, where it resides in woods; it is also said to be found in the interior parts of Africa. In its manners it is savage and untractable. It is necessary to observe, that the figure given by the Count de Buffon, though very good in other respects, was drawn from a mutilated specimen, in which the tail was defective, in consequence of which it does not convey a true idea of the animal. I have sometimes thought it not improbable that the strange figure in Gesner, p. 859, which is also given by Aldrovandus, p. 249, and copied by Dr. Tyson at fig. 17 of his work on the Oran Otan, might, in reality, have owed its origin to this species of Baboon; of which it may pass for a very bad representation, with the additional circumstance of being figured with scarce any hair on the body, in order to give it more of the human appearance.

This species seems to vary in a remarkable manner, being either of a light grey, or perfectly white, with the beard black, so as to present an appearance exactly opposite, in point of colour, to the animal above-described. In this state it has been considered as distinct, by some authors, and is placed as such in the Gmelinian edition of the *Systema Naturæ*, under the title of *S. veter.* In this white state it is found in Ceylon.

Mr. Pennant also seems to consider the *S. Faunus* of Lin. as another variety of this species.

## DOG-TAILED BABOON.

*Simia Cynosuros. S. caudata imberbis, facie elongata, fronte fuliginosa, fascia superciliari albida, genitalibus masculis coloratis, unguibus convexis. Scopoli delic. flor. et faun. insubr. P. 1. p. 44. t. 19. Lin. Syst. Nat. Gmel. p. 30.*

Pale-brown beardless Baboon, with callosities behind, and with longish flesh-coloured face, a whitish band across the forehead, and a longish sharp-pointed tail.

THIS animal is described by Scopoli, who informs us that it was about the size of a middling dog; being nearly two feet from nose to tail: it had cheek-pouches, and bare spaces behind; though in the figure accompanying his description this particular does not appear. The plate in the coloured copy of the above work, in the Banksian Library, is represented of a very pale straw-coloured brown, nearly white beneath: the face and ears very slightly dusky; eyes and eyelids very pale brown; across the forehead, over the eyes, a broad white band; tail long, thin, and sharp-pointed. The face appears uncommonly mild and placid. It was very fond of snuff, which it would also occasionally rub over its body in a ridiculous style.

## WRINKLED BABOON.

*S. caudata fusco-flavescens, subtus albida, facie incarnata, natibus calvis sanguineis rugosis.*

Short-tailed yellowish-brown Baboon, whitish beneath; with flesh-coloured face, and large blood-red wrinkled callosities behind.

*Simia erythræa. Schreb. suppl.*

Macaque a queue courte. *Buff. suppl. 7. p. 56. pl. 13.*

THIS species occurs in the supplement to Buffon, under the title of *Macaque a queue courte*, and, except in size and the shortness of the tail, seems extremely allied to the preceding animal: it has also a great affinity to the *S. nemestrina*, or *Pig-tailed Baboon*. It was fifteen inches long: the nose flattish, with a sort of sinking on the upper part, owing to the projection of the os frontis: the iris of the eye yellowish: the ears round and of a flesh-colour, having a small scollop or insection on the back part, so as to appear different from the Hare-lipped Monkey, to which, except in having a short tail, it is also allied: its face is flesh-coloured; the callosities behind, and the neighbouring space, of a blood-red, and marked with strong wrinkles. The upper part of the body was of a yellowish-green tinge, mixed with a little grey. The outsides of the limbs grey also. The under parts of body and limbs whitish. The tail was seven inches and two lines long, and of a grey-colour.

To the Baboons succeed the Monkies, properly so called: they have commonly a pair of pouches in the lower jaw, for the temporary reception of their food; a circumstance which occurs also in some of the Baboons. Their tails are long, and, in most species, a bare or callous space appears on each side the tail.

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## MONKIES.

### LEONINE MONKEY.

*Simia Leonina. S. caudata barbata nigra, barba amplissima al-bida, caudæ prælongæ apice floccoso, natibus calvis.*

Black Monkey, with callosities behind, very large whitish beard, and very long tufted tail.

Guenon à crinière. *Buff. suppl. 7. p. 81. pl. 22.*

THIS species was described from the living animal in the possession of the Duc de Bouillon; and was in the Royal Menagerie at Versailles, in the year 1775. Its length was two feet, from nose to tail, and it was eighteen inches high when standing on all-fours. The legs were long in proportion to the body: the face naked and quite black: the whole body and limbs of the same colour; the hair, though long, appearing short, on account of its lying smooth: around the face, according to Buffon's figure, is a fine long chevelure of grey-brown hair, and a large beard of fair grey.



LEONINE MONKEY.



The chevelure or spreading hair round the face, stretches upwards over the eyes and forehead, so as to encircle the whole head in a remarkable manner, as in the Ouanderou or Lion-tailed Baboon, to which, indeed, from the figure as well as description, it appears so extremely similar, that it might well pass for a variety of that animal. The eyes are of a deep brown; the nose flat, and the nostrils large and separated like those of the Ouanderou; from which, however, it differs in the far superior length of the tail, which measures twenty-seven inches, and is tufted at the end. It has callosities behind: the feet and hands are a little hairy, but the fingers are naked: the ears also are naked, flat, round, and hid by the hair. It was supposed to be a native of Abyssinia.

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HARE-LIPPED MONKEY.

*Simia Cynomolgus. S. caudata imberbis, naribus bifidis elatis, cauda arcuata, natibus calvis. Lin. Syst. Nat. p. 38.*

Long-tailed beardless Monkey, with callosities behind, rising bifid nostrils, and arched tail.

*S. Cynocephalus? S. caudata imberbis flavescens, ore producto, cauda recta, natibus calvis. Lin. Syst. Nat. p. 38.*

Macaque. *Buff. 14. p. 190. t. 20.*

Hare-lipped Monkey. *Pennant Quadr. p. 200.*

THIS species is supposed by Mr. Pennant to include the *Cynomolgus* and *Cynocephalus* of Linnæus. It is of a thick and clumsy form, and bears a great general resemblance to the Barbary Ape, except in having a long tail. In

size it appears to vary greatly; some specimens scarce exceeding the size of a cat, while others have been seen as large as a small greyhound. The colour also varies, being sometimes olive-brown at other times grey-brown. The head is large; the eyes small; the nose thick, flat, and wrinkled; on each side the tail is a bare space; the under side of the body and the insides of the limbs of a light ash-colour. It is a native of Guinea and Angola. The nostrils are divided, like those of a hare.\*

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PURPLE-FACED MONKEY.

S. Veter? *S. caudata barbata alba, barba nigra.* *Lin. Syst. Nat.*  
p. 36.

Long-tailed bearded white Monkey, with black beard.

Purple-faced Monkey. *Pennant Quadr. p. 199.*

Guenon a face pourpre. *Buff. suppl. 7. p. 80. pl. 21.*

THIS, which Mr. Pennant describes from a drawing communicated to him by Mr. Loten, has a black body; purple face and hands; a large triangular white beard, short and pointed at bottom, and extending on each side in the manner of wings. The tail is much longer than the body, and is terminated by a dirty white tuft. It is a native of Ceylon, and is of gentle manners. Mr. Pen-

\* The *Cynomolgus* and *Cynocephalus* of Linnæus may perhaps be really distinct species; but from his specific characters it seems scarce possible to determine this point.



nant's figure from Mr. Loten's drawing above-mentioned is copied in the supplement to Buffon. This species is said to be sometimes seen entirely white; but differing in no other respect. In this state it should seem to be the *Simia Veter* of Linnæus.

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PALATINE MONKEY.

*Simia Roloway. S. caudata barbata, capite, dorso, manibus pedibusque extrinsecus nigris, interius una cum abdomine et corona pilorum faciem triquetram ambiente albis. Lin. Syst. Nat. Gmel. p. 35.*

Long-tailed bearded blackish Monkey, white beneath, with triangular face, surrounded by a white beard divided at the bottom.

Palatine ou Roloway. *Allan. Buff. 15. p. 77. t. 13. Buff. suppl. 7. p. 77. pl. 20.*

Palatine Monkey. *Pennant Quadr. p. 200.*

THE Palatine Monkey is about a foot and half high, with a tail the length of the body. The face is black, triangular, and bordered all round with white hair, which, on the chin, divides into a forked beard: the back is dusky: the head, sides, and outsides of the arms and thighs the same, but each hair tipped with white: the breast, belly, and inside of the limbs white, in those which are shewn in Europe; but in Guinea (their native country) said to be orange-coloured; the alteration of climate causing the colour to fade.

## SPOTTED MONKEY.

S. Diana. *S. caudata barbata, fronte barbaque fastigiata.* Lin.  
*Syst. Nat. p. 38. Act. Stockh. 1754. p. 210. t. 6.*

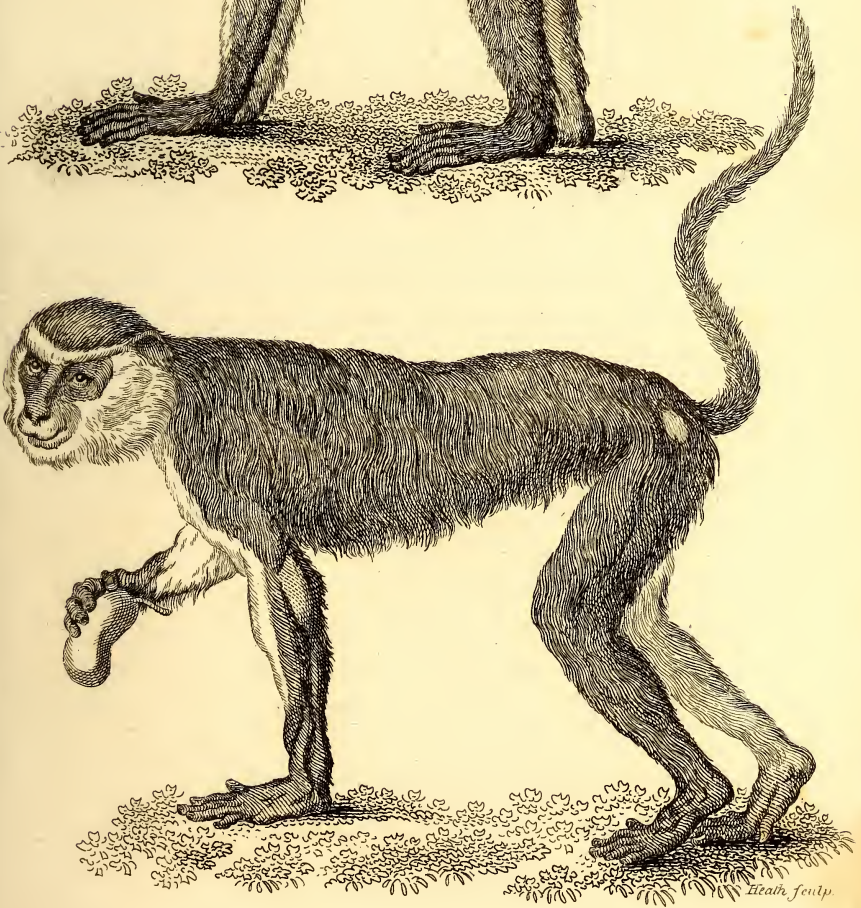
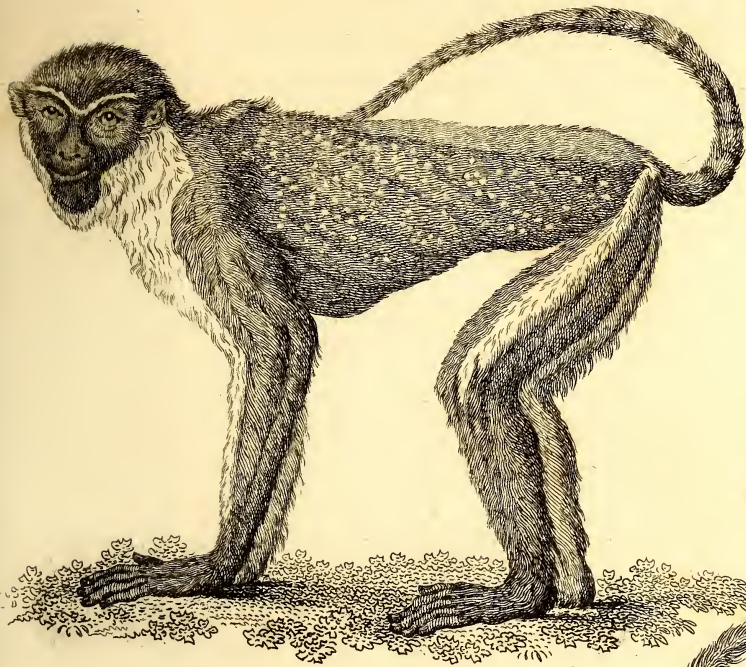
Long-tailed blackish Monkey, freckled with white; the hair of the forehead and beard growing in a pointed form, with a lunated band across the forehead.

Le Mona. *Buff. suppl. 7. p. 75. pl. 19.?*

Spotted Monkey. *Pennant Quadr. p. 201.*

MR. PENNANT describes this species as of a middling size, and of a reddish colour on the upper parts, as if singed, and marked with white specks; the belly and chin whitish; the tail very long. The Linnæan description differs. Linnæus says the animal is of the size of a large cat, and is black, spotted with white: the hind part of the back ferruginous: the face black: from the top of the nose a white line, passing over each eye to the ears in an arched direction: (this circumstance was probably the reason of the Linnæan name *Diana*, by which he has chosen to distinguish the animal:) the beard pointed, black above, white beneath, and placed on a kind of fatty tumor: breast and throat white: from the rump across the thighs a white line: tail long, straight, and black: ears and feet of the same colour: canine teeth large.

This same species is figured and described in the Count de Buffon's supplement, under the name of *le Mona*, and that author seems to consider it as a variety of the *Mone*, formerly described in his 14th volume, (Varied Monkey of Pennant). It was



Heath sculp.

MONA.



from the coast of Guinea, and, in general appearance, as to size and colour resembled the *Mone* before-mentioned; but it was of a more active nature, and had a greater lightness in the form of its limbs: the head rather smaller, and the physiognomy in consequence more agreeable. The ears had no slope on their upper margin, as in the former, and these seemed its principal differences. It had cheek-pouches and callosities behind. The face was of a slate-grey: the nose flat and large; the eyes deep, and with orange-coloured irides; the mouth and jaws of a pale red; the cheeks garnished with greyish and greenish-yellow hairs, forming a thick beard, and going under the chin. Over the forehead a black band as far as the ears, which were flat and black, except that the orifice of the auditory passage was covered with large greyish hairs. On the front, above the black line, was white-grey band, largest in the middle, and in the shape of a crescent. The top of the head and of the neck were covered with greenish hairs mixed with black ones: the body with brown and yellow hairs, giving an olive-coloured cast: the exterior surface of the limbs was black; the interior white, forming a strong contrast: the whole of the under part of the body and of the tail was white also: on each side the tail an oblong white patch: the hands and feet black: the tail very long, and covered above with short blackish hair. This animal was two years old, and measured sixteen inches and four lines from nose to tail: the tail was more

than twenty inches long. The teeth were thirty-two in number; sixteen above and the same number below: four cutting-teeth, two canine, and two grinders, on each side: the two superior canine teeth much longer than the inferior ones. It was of a mild and gentle disposition, and even timid. It eat bread, fruits, and roots. The Count de Buffon repeats what he had before observed, that the Exquima of Marcgrave is a very different animal, being a native of America; having a prehensile tail, and consequently belonging to a different division in the genus. With respect to the variety above-mentioned, it should seem to be the same with the Diana of Linnæus, differing chiefly in the want of the white band along the outside of the thighs.

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LONG-NOSED MONKEY,

*Simia Nasuta. S. caudata nigro-ferruginea, subtus albedo-cinerea, facie elongata nuda incarnata.*

Blackish-ferruginous long-tailed Monkey, pale ash-coloured beneath, with long naked flesh-coloured face.

La Guenon a museau allongé. *Buff. suppl. 7. p. 60. pl. 15.*

Two remarkable Monkeys are represented in Mr. Pennant's History of Quadrupeds, from drawings by a Mr. Paillou. The one is called the *Long-nosed Monkey*; it has a very long and slender nose, covered with a flesh-coloured skin; the hair on the forehead falls back: on the body and breast it is long: the colour of the head and upper parts is



LONG-NOSED MONKEY.

PRUDE MONKEY.





pale ferruginous mixed with black; of the breast and belly light ash-colour: tail very long: height when sitting down, about two feet. Native country uncertain: probably Africa. Its face has very much the appearance of a long-nosed dog.

The other is called, by Mr. Pennant, the *prude* Monkey; and of this he gives no particular description.

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YELLOWISH MONKEY.

*Simia Flavescens.* *S. caudata barbata cinereo-flavescens, facie auribusque nigris.*

Long-tailed bearded cinereous-yellow Monkey, with black face and ears.

Yellowish Monkey. *Pennant Quadr. p. 203.*

IT is about the size of a fox, and its colour on the upper part is cinereous mixed with yellow; but the throat and breast are of a yellowish white. On the lower part of the arms and legs, as well as on the tail, the cinereous colour prevails. The hair on the body is coarse, and the tail is of the same length with the body. The face and ears are black; the latter large: the canine teeth are large, and on the sides of the cheeks are long hairs of a pale yellow, pointing backwards: there are also long hairs above each eye. This is described from a specimen in the Leverian Museum, and is supposed to be a native of Guinea.

## GREEN MONKEY.

S. Sabæa. *S. caudata imberbis flavicans, facie atra, cauda cinerea, natibus calvis.* *Lin. Syst. Nat. p. 38.*

Long-tailed yellowish-grey Monkey, with black face and callosities behind.

Le Callitriche. *Buff. 14. p. 272. pl. 37.*

Green Monkey. *Pennant Quadr. p. 203.*

THIS is one of the most elegant of the tribe. It is generally about the size of a Cat. Its prevailing colour is a fine olive, which when narrowly inspected, seems a little varied with grey. The under parts of the animal and the insides of the limbs are of a light silvery grey. The face is of a dusky reddish or swarthy flesh colour; the nose black; the cheeks furnished with thick and long pale-yellow hair, falling back on each side the face, and almost covering the ears, which are shaped like the human, and of a black colour. This species is a native of several parts of Africa, where, like most other Monkeys, it inhabits woods. It is also said to be found in some parts of the East Indies. In its native regions the colour is said to be much more elegant than when imported into Europe: the beautiful green soon fading into an olive colour. It is, however, in general, sufficient to ascertain the species, which is therefore commonly known by the name of the Green Monkey. It has been extremely well figured by Edwards.





CHINESE MONKEY.



MANGABEY.

## WHITE-EYELID MONKEY.

S. Aethiops. *S. caudata imberbis, capillitio erecto lunulaque frontis albis.* *Lin. Syst. Nat. Gmel. p. 33.*

Long-tailed beardless Monkey, with black face, white eyelids, white frontal band, and the hair on the forehead upright.

Mangabey. *Buff. 14. p. 244. pl. 82. 83.*

White-eyelid Monkey. *Pennant Quadr. p. 204.*

THE very remarkable appearance of the eyelids is alone sufficient to distinguish this species from most others: they are of a clear white, and the face itself is black, void of hair, and shaped somewhat like that of a Dog. It is about the size of a Cat, and is generally of a very deep or blackish colour, with a tinge of ferruginous on the upper parts. It is known to vary, however, sometimes with the throat and space round the neck white: the tip of the tail also is in some white, and in others ferruginous; in others the cheeks, neck, and whole under side of the body are white. Though the white eyelids in this Monkey form a remarkable character, yet they are not peculiar to this species alone.

## MUSTACHE MONKEY.

S. Cephus. Lin. *S. caudata, buccis barbatis, vertice flavescente, pedibus nigris, cauda apice ferruginea.* Lin. Syst. Nat. p. 39.

Long-tailed blackish-ferruginous Monkey, whitish beneath, with bearded cheeks and yellowish crown; the eyelids and muzzle whitish.

Moustac. Buff. 14. p. 283. pl. 39.

The Mustache M. Pennant Quadr. p. 205.

THE body of the Mustache is about a foot in length, and the tail about a foot and half. The general colour of the animal is reddish-cinereous, the head inclining to yellowish, but mixed or shaded with black. The under parts are paler than the upper: the upper half of the tail is of the same colour with the body; the remainder yellowish. The face is bare and of a blueish black; the nose blunt, with a dilated transverse white patch immediately below it: the edges of both lips and the space round the eyes black: on the cheeks before the ears are two large tufts of yellowish hairs like mustaches: the ears round and tufted with whitish hairs: the hair on the top of the head somewhat upright. In the Linnæan description of this species mention is made of a transverse crescent-shaped band over the eye-brows: it is also added, that the eyelids are white; but in this description Linnæus seems to have confounded it with the preceding species, or rather to have considered it in the light of a variety.

MUSTACHE MONKEY.



VARIED MONKEY.





## WHITE-NOSE MONKEY.

*Simia Nitctitans*. *S. caudata imberbis nigra, punctis pallidis adspersa, naso albo, pollice palmarum brevissimo, natibus tectis*. *Lin. Syst. Nat. p. 40.*

Long-tailed beardless black Monkey, freckled with white; the nose white; the thumb of the hands very short; no callosities behind.

White-nose Monkey. *Pennant Quadr. p. 205.*

THE distinguishing character of this species is the tip of the nose, which is milk-white, while the face itself is black. The general colour of the animal on the upper parts is a mixture of black and tawny, so as to appear in some lights of a black colour speckled with yellow. The under part of the body is white, and the insides of the limbs are nearly of the same colour. The tail is very long, and is black on the upper and white on the under side: the thumbs of the hands are very short. The white nose in this species, like the white eyelids in a former, is not absolutely peculiar but is found in another. It is this similarity of marks in species, which, on exact examination, turn out to be really distinct, that causes the extreme difficulty in reconciling the different descriptions of authors, and settling their discordant synonyms and figures; and it must be confessed that much uncertainty still prevails.

## TALAPOIN MONKEY.

*Simia Talapoin. S. caudata barbata, buccis barbatis, auribus, naso, et pedum plantis nigris. Lin. Syst. Nat. Gmel. p. 35.*

Long-tailed olive-coloured Monkey, with bearded cheeks; the ears nose and soles of the feet black.

Talapoin. *Buff.* 14. p. 287. pl. 40.

Talapoin Monkey. *Pennant Quadr.* p. 206.

THIS is one of the smaller Monkeys; it is about a foot in length, with the tail near a foot and half long. The face is of a dusky flesh colour, the nose sharp and black: the head roundish: the ears large, round and black: the hair on the sides of the face very long, and directed backwards towards the ears: on the chin is a small beard: the prevailing colour of the upper parts is a mixture of yellow and green, or olivaceous, approaching to blackness on the outsides of the limbs, while the insides and the under parts of the body are whitish or whitish-yellow: the tail is olivaceous above and ash-coloured beneath. The feet black. It is said to be a native of India.

## NEGRO MONKEY.

*Simia Maura. S. caudata barbata, buccis et universa facie, palpebris et regione ab oculis ad nasi finem protensa exceptis, barbata, corpore ex luteo fusco. Lin. Syst. Nat. Gmel. p. 35?*

Long-tailed blackish Monkey, with swarthy flesh-coloured face and breast; the face bearded with black hairs.

Middle-sized black Monkey. *Edwards, pl. 311.*

Negro Monkey. *Pennant Quadr. p. 206.*

THAT sagacious observer, Mr. George Edwards, so well known by his admirable illustrations of Natural History, seems to have been the first describer of this species. Its size is that of a large cat. The face, breast, and whole under parts are of a swarthy flesh colour, and nearly naked or but very slightly covered with hair. The head, upper parts, and tail are covered with longish black hair. The head is round: the nose rather sharp: the hair above the eyes long, and uniting with the eye-brows: that on the temples partly covering the ears: the paws are covered with a black soft skin: the tail is longer than the body. It is said to be a native of Ceylon and Guinea.

## EGRET MONKEY.

S. Aygula. *S. caudata subimberbis grisea, eminentia pilosa verticis reversa longitudinali.* *Lin. Syst. Nat. p. 39.*

Long-tailed beardless grey Monkey, with a rising longitudinal tuft on the crown.

Aigrette. *Buff. 14. p. 190. pl. 21.*

Egret Monkey. *Pennant Quadr. p. 207.*

THE description given by Linnæus of this species is nearly as follows: Body grey, or of the colour of a wolf, throat, breast, and under part whitish: tail longer than the body, cinereous and tapering: face flattish, whitish, and naked. Nose depressed, very short, remote from the mouth, with a double fissure of the upper lip: cheeks somewhat bearded; the hairs turning upwards. The eyebrows prominent and bristly: feet black, semipalmated: nails of the thumbs rounded; the others oblong. Ears rather sharp: a bowed suture tending downwards from each ear towards the eyes to the base of the lower jaw: longitudinal suture of the cubit. Linnæus also adds, that he had what he supposes a variety, in which the head was rounder: the face less black, and the colour of the body less ferruginous. He adds, that it was an active animal. Mr. Pennant describes the Egret as having a long face, and an upright pointed tuft of hair on the top of the head: hair on the forehead black: colour of the upper part of the body olivaceous, of the lower cinereous: eyebrows large: beard very small: size of a small cat. It is said to inhabit India, and particularly the island

of Java, and to be a very sportive and lively species; gamboling on the trees, and making a continual noise during the night. It is surmised by Mons. Cepede, that the Bonneted Monkey may perhaps be a variety of this species.

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EGRET VAR. ?

Monea Monkey. *Pennant Quadr. p. 207.*

THIS, which is mentioned by Mr. Pennant in his last edition of the History of Quadrupeds, is thus described: "With a high, upright, rusty tuft on the crown: limbs and body ferruginous mixed with dusky: belly and inside of the legs whitish. It is called by the Malayes *Monèa*, from which is derived the English name Monkey." No farther description is given by Mr. Pennant, nor do I know to what particular species his memorandum above-mentioned refers.

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RED MONKEY.

S. Rubra. *S. caudata barbata, buccis barbatis, vertice dorso caudaque ex rufo sanguineis. Lin. Syst. Nat. Gmel. p. 34.*

Long-tailed red Monkey, pale ash-coloured beneath, with bearded cheeks and a black or white band across the forehead.

Le Patas. *Buff. 14. p. 208. pl. 25. 26.*

Red Monkey. *Pennant Quadr. p. 208.*

THE upper parts of this animal are of the most bright and vivid bay, so as almost to appear red:

the under parts and insides of the limbs are ash-coloured: the length of the body is about a foot and half; but the tail is generally not so long: the cheeks are bearded, as is also the chin, with whitish or ash-coloured hairs, and across the forehead runs a black band: but sometimes a white band is seen on the forehead instead of the black one, and the tail is longer than the body. The Count de Buffon has figured this species, with the white-banded variety also. It is a native of Senegal, inhabiting woods. A variety with a tail scarce half the usual length, is given in the supplement to Buffon.

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CHINESE MONKEY.

*S. Sinica. S. caudata imberbis, capillitio undique horizontaliter caput obumbrante. Lin. Syst. Nat. Gmel. p. 34.*

Beardless pale-brown Monkey, with the hair of the crown spreading round horizontally.

Bonnet Chinois. *Buff. 14. p. 224. pl. 30.*

Chinese Monkey. *Pennant Quadr. p. 209.*

THE Chinese Monkey, so named from the unusual disposition of the hair on the top of the head, which spreads out in a circular direction, somewhat in the manner of a Chinese cap, is a native of Ceylon, and is about the size of a cat. Its general colour is a pale yellowish-brown, palest on the under parts. The face is commonly dusky, and sometimes the general tinge of the animal is dusky-ferruginous. This is a species easily

distinguished when seen in a healthy state: the hair on the top of the head resembling that of a boy; as if parted in the middle, and lying smooth over the head. They are said to inhabit the woods in great troops, and to be very destructive to such gardens and plantations as lie within reach of their settlements. The tail in this species is very long: the nails of the thumbs are round; the rest long.

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VAULTING MONKEY.

S. Petaurista. *S. caudata barbata, dorso, caudæ superiore et pedum anteriore latere ex olivaceo nigris, facie nigra, nasi macula triquetra nivea. Lin. Syst. Nat. Gmel. p. 35.*

Olive-black Monkey, white beneath, with a triangular snow-white spot on the nose.

Blanc-nez. *Allam. Buff. 14. p. 141. pl. 39.*

Guenon à nez blanc proéminent. *Buff. suppl. 7. p. 72. pl. 18.*

THIS is described by Mr. Allamand in his edition of Buffon's Natural History of Quadrupeds. It is said to be somewhat more than a foot high, and the tail about twenty inches long. The upper parts of the animal are of a dark olivaceous colour, owing to a mixture of olive-green and black hair: the face black, with a snow-white triangular spot on the nose: the chin, throat, breast, and belly, white: the under part of the tail and insides of the limbs of a blackish grey. It is a most extremely nimble and active animal, according to M. Allamand. The individual in his possession came from Guinea. It was perfectly familiar, playful,

of a gentle disposition, and so rapid in its motions that it seemed to fly rather than leap. The individual figured by Mr. Allamand was a female: his figure represents it with a large white beard round the chin; and beneath each ear appears a flattish reversed tuft of yellowish hairs, as in some other species. That represented in the supplement to Buffon was a male, and had a much smaller beard; the nose was remarkably prominent or convex: the general colour was darker than in Mr. Allamand's specimen, being rather blackish grey-brown than olive, except on the top of the head, where it was yellowish. It was described from a dried skin in good preservation; but though it was evident that it was from a young animal, yet it was somewhat larger than the former. Upon the whole, however, there can be little doubt of its belonging to the same species; and this may serve as an additional evidence of the inefficacy of mere short specific characters in ascertaining animals of this obscure and variable race.



## BONNETED MONKEY.

*Simia Pileata.* *Simia fusco-ferruginea, subtus albido-flavescens, artubus nigris, capillitio circulatim arrecto.*

Ferruginous-brown Monkey, whitish-yellow beneath, with black limbs, and the hair of the head rising circularly upwards.

La Guenon couronnée. *Buff. suppl. 7. p. 61. pl. 16.*

Bonneted Monkey. *Pennant Quadr. p. 210.*

THIS was certainly first described by Mr. Pennant, who formed his description from a specimen in the Leverian Museum. The size and general habit of the animal are similar to those of the Capucin Monkey; but the colours somewhat darker: it seems still more strongly allied to the *Fatuellus*, or Horned Monkey, from which it principally differs in not having a prehensile tail, and in the disposition of the black hair on the head, which stands up in a kind of circular cap or bonnet, instead of two tufts as in that species. The face and breast are of a pale yellow-brown; the back deeper; and the lower part of the back, arms, and legs, blackish-brown. Mr. Buffon, in his seventh supplemental volume, describes and figures this species from a living specimen: and seems to think it most allied to the Chinese-bonnet Monkey.

## VARIED MONKEY.

Simia Mona. *S. caudata barbata, lunula superciliari elata ex albo grisea.* *Lin. Syst. Nat. Gmel. p. 34.*

Olivaceo-ferruginous long-tailed Monkey, whitish beneath, with the cheeks bearded, and a lunated whitish band across the forehead.

La Mone. *Buff. 14. p. 258. pl. 36.*

Varied Monkey. *Pennant Quadr. p. 210.*

THIS is said to be the species which gives the name of Monkey to the whole tribe: from the African word *Monne*; or rather, as Mr. Pennant surmises, from its corruption *Monichus*. It is one of the larger species; being about a foot and half in length, with a tail nearly two feet long. The nose, mouth, and spaces round the eyes, are of a dull flesh colour: the cheeks are bounded by long whitish hairs inclining to yellow: the forehead is grey, and above the eyes, from ear to ear, extends a black line. The upper part of the body is dusky and tawny; the breast, belly, and inside of the limbs, white: the outside of the thighs and arms, black: hands and feet black and naked: the tail of a cinereous-brown. On each side the base of the tail is commonly an oval white spot. This species inhabits Barbary, Æthiopia, and other parts of Africa. It seems to differ very considerably in the tinge of its colours, which are sometimes vivid and sometimes rather obscure: in general it is of a blackish olive-grey



PROBOSCIS MONKEY.



above, the outsides of the limbs nearly black, and whitish beneath; the contrast between the colours being greatest on the sides of the arms and legs: the beard is sometimes grey, sometimes white, and sometimes yellowish. Perhaps the Diana Monkey may be no other than a variety of this species.

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PROBOSCIS MONKEY.

*Simia Nasalis. S. caudata barbata castanca, artubus caudaque pallidis, naso prælongo.*

Long-tailed bearded chesnut-coloured Monkey, with pale limbs and tail, and very long nose.

*S. Nasalis. Lin. Syst. Nat. Gmel. præfat. lin. penult.*

Guenon à long nez. *Buff. suppl. 7. p. 53. pl. 11. 12.*

Proboscis Monkey. *Pennant Quadr. 2. append. p. 322. pl. 104. 105.*

AMONGST the whole tribe of Monkeys this perhaps may be considered as the most singular in its aspect: the nose being of such a length and form as to present, especially in a profile view, an appearance the most grotesque imaginable; and indeed from an inspection of the figure alone, one would be apt to imagine that it must have been designed for a caricature of a Monkey. The animal, however, is preserved in the royal cabinet at Paris, and was first described by Mons. D'Aubenton. It is a large species, measuring two feet from the tip of the nose to the tail, which is more than two feet long. The face has a kind of curved form, and is of a brown colour, and marked with blue and red: the ears broad, thin, naked, and

hid within the hair. The head is large, and covered with chesnut-coloured hair: the whole body is also of a similar colour, except that on the breast, it approaches to orange. Round the throat and shoulders the hair is much longer than on the other parts, so as to form a sort of cloak, as in some of the Baboons, to which, indeed, this species seems nearly allied. It is an East-Indian animal, and is extremely rare. The form of the nose is most singular, being divided almost into two lobes at the tip; a longitudinal furrow running along the middle. It is said to be found chiefly in Cochinchina, and to grow to a very large size. It is sometimes seen in great troops, and is considered as of a ferocious disposition. It feeds only on fruits. Its native name is *khi dôc*, or Great Monkey. Some Cochinchinese, who visited the royal cabinet at Paris, immediately recognized the animal.

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COCHINCHINA MONKEY.

*Simia Nemæus. S. caudata imberbis, buccis barbatis cauda alba.*

*Lin. Syst. Nat. Gmel. p. 34.*

Long-tailed Monkey, with bearded cheeks and white tail.

Douc. *Buff. 14. p. 298. pl. 41. suppl. 7. pl. 23.*

Cochinchina Monkey. *Pennant Quadr. p. 211.*

THE Douc or Cochinchina Monkey is a very large species, measuring at least two feet from the nose to the tail. The face is flattish and of a yellowish-bay colour; as are also the ears: across



*White sculp.*

COCHINCHINA MONKEY





the forehead runs a narrow dusky band. The sides of the face are bounded by long spreading yellowish-white hairs: a collar of purplish-brown surrounds the neck: the upper part of the arms and thighs black: the legs and knees chesnut-colour. The back, the under parts of the body, and sides, are of a yellowish-grey: the lower part of the arms and tail are white: the feet dusky. It is a native of Cochinchina, and also of Madagascar. It is said that a bezoar is more frequently found in the stomach of this species than of almost any other. When in an upright posture this animal measures three and a half or four feet in height; being nearly of the size of a Barbary Ape. This species seems considerably allied in its general form and colours to the preceding, but differs greatly in the form of the face.

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TAWNY MONKEY.

*Simia Fulva. S. subferruginea, dorso inferiore aurantio, subtus albida, facie auribusque incarnatis.*

Subferruginous Monkey, with the lower part of the back orange-coloured, white beneath, with flesh-coloured face and ears.

Tawny Monkey. *Pennant Quadr. p. 211.*

MR. PENNANT seems to be the only describer of this animal. The face is a little produced: that and the ears flesh colour: nose flattish: long canine teeth in the lower jaw; hair on the upper part of the body pale tawny, cinereous at the roots: hind part of the back orange: legs cinere-

ous: belly white: size of a cat. Inhabits India. Mr. Pennant's description was drawn up from one in Mr. Brookes's exhibition: it was a very ill-natured animal. It is said to vary with a black face, and long black hairs on the cheeks: body of a dull pale green: limbs grey: tail dusky.

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GOAT MONKEY.

*Simia Hircina. S. caudata fusca, naso cæruleo oblique sulcato, barba longa acuminata.*

Long-tailed brown Monkey, with blue nose furrowed obliquely and long pointed beard.

Goat Monkey. *Pennant Quadr. p. 212.*

WITH a blue naked face ribbed obliquely: long beard like that of a goat: whole body and limbs deep brown: tail long. Described by Mr. Pennant from a drawing in the British Museum by Kikius, an excellent painter of animals. No mention is made of the size of the animal: the face resembles that of the *Simia Maimon*.





*Heath sculp.*

FULL-BOTTOM MONKEY.

## FULL-BOTTOM MONKEY.

*Simia Comosa. S. nigra, capitis coma longissima amplissima albida, cauda nivea.*

Long-tailed black Monkey, with very long spreading whitish hair on the head, and snow-white tail.

Full-bottom Monkey. *Pennant Quadr. p. 212. pl. 46.*

Guenon à camail. *Buff. suppl. 7. p. 65. pl. 17.*

WITH a short, black, and naked face: small head: that and the shoulders covered with long coarse, flowing hairs, like a full-bottomed perriwig; of a dirty yellowish colour mixed with black: body, arms, and limbs, of a glossy black: hand naked, and with only four fingers: on each foot five very long toes: tail very long, and of a snowy whiteness, with very long hairs at the end, forming a tuft: body and legs very slender: length above three feet. Inhabits Sierra Leona. This species is figured in Mr. Schreber's plates under the name of *Simia Polycomos*, but the figure is not very accurate.

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 BAY MONKEY.

*Simia Ferruginea. S. caudata ferruginea, artubus caudaque nigris.*

Long-tailed ferruginous Monkey, with black limbs and tail.

Bay Monkey. *Pennant Quadr. p. 213.*

WITH black crown: back of a deep bay colour: outside of the limbs black; cheeks, under part of body, and legs, of a very bright bay. Only four fingers on the hands: on the feet five long toes:

tail very long, slender, and black: body and limbs very slender and meagre. Native of Sierra Leona. In the Leverian Museum, as is likewise the former. In the supplement to Buffon, vol. 7. p. 66, this species is considered as a variety of the former: an opinion which surely would not have been entertained, had the author seen the animal.

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ANNULATED MONKEY.

*Simia Annulata. S. fusco-ferruginea, subtus albida, cauda corpore brevior annulata.*

Ferruginous-brown Monkey, whitish beneath, with annulated tail shorter than the body.

Annulated Monkey. *Pennant Quadr. p. 213.*

DESCRIBED by Mr. Pennant, from a drawing in the British Museum. Face flat: long hairs on the forehead and cheeks: upper part of the body and limbs tawny-brown: belly cinereous: tail shorter than the body, and annulated with darker and lighter brown: hands naked and black: size not mentioned.



STRIATED MONKEY.



SQUIRREL MONKEY.



SILKY MONKEY.

FOX-TAILED MONKEY.

Taylor sculp.



## FOX-TAILED MONKEY.

*Simia Pithecia. S. caudata imberbis, vellere nigro apice albo, cauda nigra villosissima. Lin. Syst. Nat. p. 40.*

Blackish-brown Monkey, with the tips of the hairs whitish; the tail extremely full of hair.

Saki. *Buff. 15. p. 88. pl. 12 and suppl. 7. p. 113, 114. pl. 30, 31.*

*S. Pithecia. Museum Leverianum. No. 4. p. 169. t. 5.*

Fox-tailed Monkey. *Pennant Quadr. p. 222.*

Yarqué. *Buff. suppl. 7. p. 113. pl. 30. Singe de Nuit. p. 114. pl. 31.*

THE Fox-tailed Monkey is about the size of a large cat, and is an animal of a very remarkable appearance. It is entirely of a dusky-brown colour, with a slight cast of ferruginous; except on the head and face; the middle of the face or nose being black, bare, and surrounded by white downy hair on the cheeks and forehead, and which, gradually expanding on the top and sides of the head, forms a very thick and full kind of beard, which divides under the chin, so as to leave in that part a bare space. This gives a highly singular aspect to the face. The eyes are large, and the ears round and flat: the feet and hands are furnished with sharpish claws; the tail is equal to the body in length, and most extremely villose or full of hair. A most elegant and perfect specimen of this animal is in the Leverian Museum, and is very finely represented in the Museum Leverianum. It is a native of Guiana. The tusks in this species are remarkably large. In the 7th supplemental volume to

Buffon two varieties are figured under the titles of *Yarqué* and *Singe de Nuit*: the former is less bearded or villose about the cheeks: the latter is in all parts more shaggy or tufted, and is considered as a particular variety, if not a distinct species.

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STRIATED MONKEY.

*Simia Jacchus. S. caudata, auribus villosis patulis, cauda hirsutissima curvata, unguibus subulatis, pollicum rotundatis. Lin. Syst. Nat. p. 40.*

Long-tailed Monkey; with patulous hairy ears, incurved furry tail, and sharp claws; those on the thumbs rounded.

*Cercopithecus brasilianus* 3. Sagouin. *Clus. exot.* 372.

Oustiti. *Buff.* 15. p. 96. pl. 14.

Sanglin or Cagui minor. *Edwards, pl.* 218.

Striated Monkey. *Pennant Quadr. p.* 224.

THE Sanglin or Striated Monkey is an animal of great elegance. It is about the size of a squirrel. The body is of a reddish-ash colour, slightly undulated with dusky shades: the face is of a dark flesh colour; and on each side are two very large and thick tufts of milk-white hair, standing out before the ears. The tail is very long, extremely thickly coated with fur of an erect growth, and beautifully varied throughout its whole length with alternate bars of black and white. The paws are covered with hair and have sharp nails. This little animal is a native of Brasil, and in its natural state is supposed to feed chiefly on fruits; but in a state of confinement it

will occasionally feed on fish, snails, insects, &c. We are informed by the Count de Buffon, that it has been known to breed in Portugal: the young are said to be very deformed at first; having very little fur on their body. Linnæus observes that it is a great enemy to cats. Its voice is a sort of shrill hissing note, and it has often a musky smell.

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RED-TAILED MONKEY.

*Simia CEdipus. S. caudata imberbis, capillo dependente, cauda rubra, unguibus subulatis. Lin. Syst. Nat. p. 41.*

Long-tailed beardless Monkey, with the hair of the head spreading downwards, red tail, and sharp nails.

Pinche. *Buff. 15. p. 114. pl. 17.*

Little Lion Monkey. *Edwards, pl. 195.*

Red-tailed Monkey. *Pennant Quadr. p. 225.*

THIS is an animal of uncommon elegance. In size it is nearly equal to the former species, or about as large as a squirrel. The upper parts of the body are of a pale reddish-brown: the under parts white: the limbs are also white. The face black: the hair on the head white, long, loose, and spreading over the shoulders in the manner of a mantle: the lower parts of the back and the upper half of the tail are of a deep orange-red; the remainder of the tail black: the insides of the hands and feet are also black: the claws small and sharp. It is a native Guiana; and is an active, lively animal: its voice is a kind of soft

whistle, not unlike the note of a bird. Mr. Edwards, who has given a good figure of this species, which he drew from a healthy living specimen, observes, that, when gamboling about a room, it often assumes the appearance of a lion in miniature, from the manner in which it carries its tail over its back.

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SILKY MONKEY.

*Simia Rosalia. S. caudata imberbis, capite piloso, faciei circumferentia pedibusque rubris, unguibus subulatis. Lin. Syst. Nat. p. 41.*

Long-tailed silky-haired yellow Monkey, with long hair on the head, reddish round the face, and pointed claws.

Silky Monkey. *Pennant Quadr. p. 225.*

Marikina. *Buff. 15. p. 108. pl. 16.*

THIS species is so named from the appearance of its hair, which is very fine, soft, long, and of a bright-yellow colour, resembling yellow silk. Round the face the hair is much longer than in other parts, so as to form a large mane like that of a lion; near the face this mane is of a reddish colour, and grows paler as it recedes from the cheeks: the face itself is of a dusky purple: the ears round and naked: the hands and feet are also naked, and of the same dull purple colour as the face: the claws are small and sharp: the tail is very long, and rather bushy at the extremity. This is a larger species than the former, measuring about ten inches from nose to tail; the tail itself being about thirteen inches long. It is a





FAIR MONKEY

native of Guiana, and is a lively, active species, and gentle in a state of confinement.

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GREAT-EARED MONKEY.

*Simia Midas. S. caudata imberbis, labio superiore fisso, auribus quadratis nudis, unguibus subulatis, pedibus croceis. Lin. Syst. Nat. p. 42.*

Long-tailed black Monkey, with large naked squarish ears, orange-coloured feet, and pointed nails.

Little black Monkey. *Edwards, pl. 196.*

Tamarin. *Buff. 15. p. 92. pl. 13. Tamarin nègre. suppl. p. 116. pl. 32.*

Great-eared Monkey. *Pennant Quadr. p. 223.*

THE Tamarin or Great-eared Monkey is about the size of a squirrel. It is coal-black, except on the lower part of the back, which is of a reddish colour, and on the hands and feet, which are orange-coloured. The face is naked and flesh-coloured; the ears very large, naked, of a squarish form, and of a dusky flesh colour: the tail very long and black. It is a native of the hotter parts of South America. The claws are small and sharp. It is extremely well figured by Edwards. It sometimes varies in having the face black instead of flesh-coloured. In this state it is described and figured in Buffon's seventh supplemental volume, under the title of *Tamarin nègre*.

## FAIR MONKEY.

*Simia Argentata. S. caudata imberbis exalbida, facie rubra, cauda fusciscente. Lin. Syst. Nat. Gmel. p. 41.*

Long-tailed beardless white Monkey, with red face and brown tail.

Mico. *Buff. 15. p. 121. pl. 18.*

Fair Monkey. *Pennant Quadr. p. 226.*

THE last, and certainly the most beautiful of the smaller Monkeys, is the Mico or Fair Monkey. It is somewhat larger than a squirrel, measuring from nose to tail about eight inches, and the tail itself about twelve. The whole animal, except the face and the tail, is covered with the brightest silvery-white hair: the face is of a vermilion-red: the ears of the same colour, and are thin and of a round form: the tail is of a very deep or blackish chesnut colour. This beautiful little animal is a native of South America. It is an extremely rare species. We are informed by the Count de Buffon, that Mons. Condamine, who had received one as a present from the governor of Para, attempted to bring it over to France alive; but the animal died just before the arrival of the ship, and was preserved by Mr. Condamine in spirits.







PHILIPPINE MONKEY.

## PHILIPPINE MONKEY.

*Simia Syrichta. S. caudata imberbis, ore ciliisque vibrissatis. Lin. Syst. Nat. p. 42.*

Long-tailed beardless Monkey, with long hairs round the mouth and eyes.

*Cercopithecus luzonicus minimus. Petiv. gaz. 21. t. 13. f. 11. Philippine Monkey. Pennant Quadr. p. 213.*

THIS small species (if such exists) depends merely on the authority of a drawing, with its description, communicated to Petiver, and by him represented in his work entitled *Gazophylacium, &c.* The same figure is also engraved by Mr. Schreber, in his plates of Quadrupeds. It is said to be a native of the Philippine islands, and is represented by Petiver with a young one under its body, which is supposed to have been tied there by means of a slender twig of some plant coiled round its own back.

The original from which the above figure in Petiver was copied is among the drawings of Camel (Kamel), or Camelli, as he is sometimes called, and which are now preserved in the British Museum. As a further illustration of so curious a subject cannot but be acceptable to every naturalist, I shall here give Camelli's own description, together with faithful copies of all the figures, four in number, with which his account is accompanied. These figures are reduced from the originals, in order to bring them within the compass of the annexed plate. It is impossible to determine from the figures and description whether this species should or should not be placed in the *prehensile-tailed* division of the genus.

MAGU, sive BOOT *Indorum*.

*Cercopithecus ex Luzonis minimus. Camel Mss. Br. Mus.*

“Magnitudinem, quæ Gliris est, icon exprimit, et communiter adhuc minor, & gracilior est. Facies leonina: oculi rubri, magni, rotundi, ut noctuæ, nunquam aut raro conniventes: aures pellucidæ, depiles. Pilus murium luteolus aut aureolus. Gesticulationes lepidæ ut Simiæ. Cauda et pedes posterior longitudo reliqui corporis. Raro interdum apparet, hinc eum cæcutire putant. Progreditur ordinariè saltando, et retrorsum vel in obliquum velocius quam antrorsum. Narrant vivere carbone, &c. sed falsum est, cum ficu Indica, et aliis vescatur fructibus.

“L. *A* sedens, et comedens, ut Simius dextra.

“*B* arborem scandens.

“*C* sedens et terrens, cum timet.

“*D* incedens cum prole, quam ad ventrem, plantæ volubilis *Pamago* funiculis alligatam sugientem gerit. *Pamago* vero Indi ad recidivas commendant.” *Camel. Mss. tom. 6. Mus. Brit.*

“The figure shews the size of the animal, which is that of a Glis or Loir\*, and it is often seen still smaller: the face is like that of a lion: the eyes red, large, and round, like those of an owl; and never, or but rarely, closing: the ears pellucid and void of hair: the fur mouse-like, and of a yellowish or gold-coloured cast. Its motions are lively, like those of a monkey. The tail and hind feet are of the length of the rest of the body.

\* The greater Dormouse, or garden Squirrel.

It appears but seldom by day-time, and on that account is supposed to be dim-sighted by day. It commonly moves by springing or skipping, and that more readily either backwards or obliquely than forwards. It is said to live on charcoal, &c. but this is false\*, since it feeds on the Indian fig and other fruits.

“ A represents it sitting, and eating with its right hand, like a Monkey.

“ B, shews it climbing a tree.

“ C, sitting in the manner it appears when frightened.

“ D, walking, with its young, which it carries tied to its belly, while sucking, with twigs of a climbing plant, called Pamago, and which the Indians recommend as good against relapses into sickness.”

A description so particular seems to imply that Camelli had himself seen the animal, or, at least, that his authority was unquestionable. It is, however, a singular circumstance that no farther intelligence seems to have been obtained concerning it, and the species accordingly remains dubious. From some parts of the description, viz. the protuberant eye, the nocturnal appearance of

\* There was surely no occasion for Camelli to tell us that this is false. To live on charcoal is probably a popular saying or jest among the Indians. When the Chinese mountebanks were haranguing the people in the streets of Pekin, during the procession of the English embassy, they affirmed that among the presents for the emperor were an elephant of the size of a monkey, and a cock that fed upon charcoal.

the animal, and its oblique and retrograde mode of incession, it should seem rather to belong to the genus Lemur than that of Simia; and seems, in some degree, allied to the small species called Lemurmurinus; but in that creature the tail is villous, not bare as in the Camellian animal. This, however, is a circumstance which does not much invalidate the idea; since, in a mere outline, the hairiness of the tail might not have been expressed.

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WE now arrive at the division containing those species which are furnished with *prehensile tails*, i. e. tails so constituted as to be able to clasp at pleasure round any object, so as to answer the purpose of a fifth hand. These Monkies are natives of South America.

PREACHER MONKEY.

Simia Beelzebul. *Lin. S. caudata barbata nigra, cauda prehensili, extremo pedibusque brunneis. Lin. Syst. Nat. p. 37.*

Bearded black Monkey, with prehensile tail; the feet and tip of the tail brown.

Preacher Monkey. *Pennant Quadr. 214.*

L'Ouarine. *Buff. 15. p. 5. and suppl. 7. pl. 26.*

THIS species is said to be of the size of a fox, and of a black colour, with smooth glossy hair; round beard beneath the chin and throat: the feet and end of the tail brown. It is a native of Brasil and Guiana, inhabiting the woods in vast numbers, and howls in a dreadful manner. Marcgrave

assures us, that one sometimes mounts the top of a branch, and assembles a multitude below: he then sets up a howl so loud and horrible, that a person at a distance would imagine that a hundred joined in the cry: after a certain space he gives a signal with his hand, when the whole assembly join in chorus; but on another signal a sudden silence prevails, and then the orator finishes his harangue. This howling faculty is owing to the conformation of the os hyoides, or throat bone, which is dilated into a bottle-shaped concavity.

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 ROYAL MONKEY.

*Simia Seniculus.* *Lin. S. caudata barbata rufa, cauda prehensili.*

*Lin. Syst. Nat. p. 37.*

Long-tailed bearded red Monkey, with prehensile tail.

*Alouate. Buff. 15. p. 5. and suppl. p. 87. pl. 27.*

Royal Monkey. *Pennant Quadr. p. 215.*

THIS is sometimes considered as a variety of the former, from which it differs in being of a very bright bay colour. In other respects it is said to resemble the former. It is, however, in all probability, a distinct species. In the Leve-rian Museum are two which appear to be young animals. They are about the size of a squirrel, and entirely of a very bright ferruginous or reddish chesnut colour, with the face naked and black, surrounded on the lower parts by a strag-ling beard of black hairs, and the tail is strongly

prehensile. The Royal Monkey is said to be rare in Brasil, but very common in Cayenne. On the contrary, the former species is very common in Brasil, but is not found in Guiana. Both species have the same voice and manners\*.

\* The following is a description given by an observer who had seen and kept these animals at Cayenne:

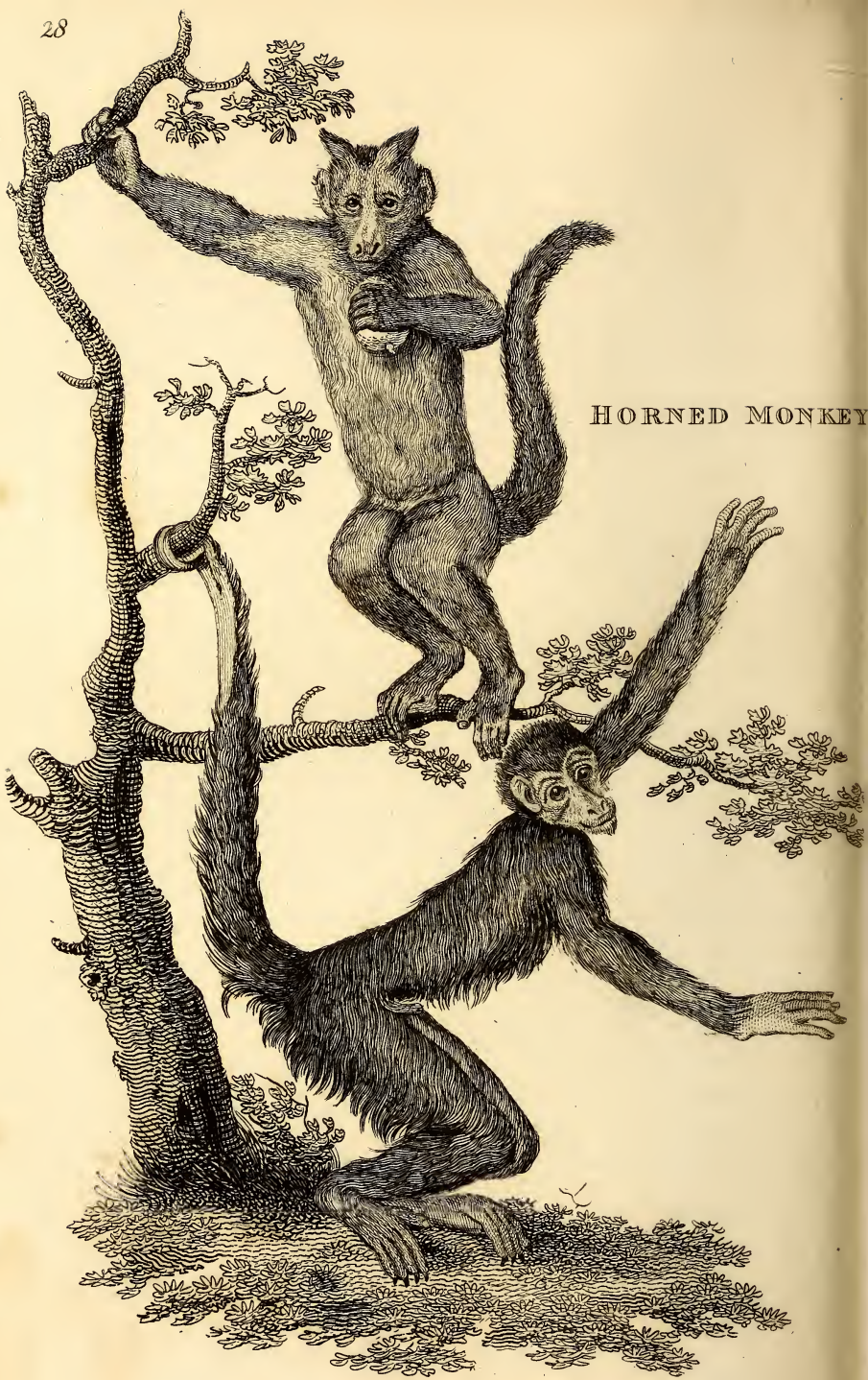
“The Allouates, or Howlers, inhabit the moist forests, in the neighbourhood of waters or marshes. They are commonly found in the woody islets of large flooded savannahs, and never on the mountains of the interior of Guiana. They go in small numbers, often in pairs, and sometimes singly. The cry, or rather horrible rattling scream, which they make, may well inspire terror; and seems as if the forests contained the united howlings of all its savage inhabitants together. It is commonly in the morning and evening that they make this clamour: they also repeat it in the course of the day, and sometimes in the night. The sound is so strong and varied, that one often imagines it produced by several of the animals at once, and is surprised to find only two or three, and sometimes only one. The Allouate seldom lives long in a state of captivity: it in a manner loses its voice, or at least does not exert it in the same manner as when wild. The male is larger than the female, which latter always carries her young on her back.

“Nothing is more difficult than to kill one of these animals. It is necessary to fire several times in order to succeed, and as long as the least life remains, and sometimes even after death, they remain clinging to the branches by the hands and tail. The sportsman is often chagrined at having lost his time and ammunition for such wretched game; for, in spite of the testimony of some travellers, the flesh is not at all good; it is almost always excessively tough, and is, therefore, excluded from all tables: it is merely the want of other food that can recommend it to needy inhabitants and travellers.”

A figure of this species is given in the supplement to Buffon, as well as of the Preacher Monkey, but that of the latter seems not of equal authenticity with the former or red species.







HORNEDED MONKEY

FOUR-FINGERED MONKEY.

## FOUR-FINGERED MONKEY.

*Simia Paniscus. S. caudata imberbis atra, cauda prehensili, manus tetradactylis. Lin. Syst. Nat. p. 37.*

Long-tailed bearded black Monkey, with prehensile tail and four-fingered feet.

Coaita. *Buff. 15. p. 16. pl. 1.*

Four-fingered Monkey. *Pennant Quadr. p. 216.*

THIS animal is distinguished by the gracility of its body and limbs; its uniform black colour, except on the face, which is of a dark flesh colour, and by the want of thumbs on the fore-feet, instead of which are very small projections or appendices. It is one of the most active and lively of animals, and is, besides, of a gentle and tractable disposition in a state of confinement. It inhabits the woods of South America; associating in great multitudes; assailing such travellers as pass though their haunts with an infinite number of sportive and mischievous gambols; chattering and throwing down dry sticks, swinging by their tails from the boughs, and endeavouring to intimidate the passengers by a variety of menacing gestures. In some drawings of animals in the British Museum this species is represented with the orbits of the eyes perfectly white, and with a patch of white on each side of the tip of the nose, while the nose itself and the remainder of the face is of a dusky colour: in another figure of the same species the orbits and whole nose are of a very bright pale or whitish flesh colour.

## HORNED MONKEY.

*Simia Fatuellus. S. caudata imberbis, cauda prehensili, capitis fasciculis pilorum duobus corniculorum æmulis. Lin. Syst. Nat. p. 42.*

Long-tailed beardless prehensile-tailed Monkey, with two tufts of hair on the head resembling horns.

Le Sajou cornu. *Buff. suppl. 7. p. 110. pl. 29.*

Horned Monkey. *Pennant Quadr. p. 221.*

IN point of size, colours, and general appearance, this animal is considerably allied to the *S. Trepida*, or *Sajou* of Buffon. But the remarkable tufts of hair or horns on the head, which are very distinctly visible in all the different specimens of the animal, afford a sufficient mark of discrimination. The claws are longish and blunt. The general colour of the Horned Monkey is a subferruginous brown, lighter beneath and about the shoulders: the top of the head and outsides of the limbs of the tail blackish: the face reddish-brown and covered with hair.

## FEARFUL MONKEY.

*Simia Trepida.* *Lin. S. caudata imberbis, capillitio arrecto, manibus pedibusque cœruleis, cauda prehensili villosa.* *Lin. Syst. Nat.*  
p. 39.

Long-tailed beardless Monkey, with the hair on the head upright, blueish feet, and prehensile tail.

Sajou. *Buff. 15. p. 37. pl. 4. 5.*

Bush-tailed Monkey. *Edwards, pl. 212.*

Fearful Monkey. *Pennant Quadr. p. 217.*

THIS is about the size of a small or half-grown cat: the head is round; the face short and flesh-coloured, with a little whitish down upon it: the hair on the top of the head is erect in its growth and of a deep brown or blackish colour: the general colour of the animal is a pale brown; the back, shoulders, and outsides of the limbs deeper than the other parts: the tail long, thickly covered with hair of a deep brown: the hands and feet of a dull blueish-black, and furnished with rounded nails. It is a native of Guiana. This species was first figured by Edwards. It has been known to breed in France. It is of a sprightly disposition, but is observed to be capricious in its affections when in a state of captivity, having a great fondness for some persons, and as great a hatred to others.

## WEEPER MONKEY.

*Simia Apella. S. caudata imberbis cauda subprehensili, corpore fusco, pedibus nigris. natibus tectis. Lin. Syst. Nat. p. 42.?*

Long-tailed beardless Monkey, with prehensile tail, brown body, black feet, and without callosities.

Sai à gorge blanche. *Buff. 15. p. 64. pl. 9.*

Weeper Monkey. *Pennant Quadr. p. 219.*

SIZE of a very small cat. Face round, swarthy, flesh-coloured: general colour of the animal ferruginous brown, deepest on the back and outsides of the limbs: tail blackish\*, and, as in the two former animals, well covered with hair: hands and feet dusky: nails flat and round.

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 CAPUCIN MONKEY.

*Simia Capucina. S. caudata imberbis fusca, cauda prehensili hirsuta, pileo artubusque nigris, natibus tectis. Lin. Syst. Nat. p. 42.*

Long-tailed beardless Monkey, with hirsute prehensile tail, black crown and limbs, and without callosities.

Sai. *Buff. 15. p. 51. pl. 8.*

Capucin Monkey. *Pennant Quadr. p. 218.*

SIZE of the former: face round, flat, and flesh-coloured: encircled with upright whitish hairs: the breast covered with long shaggy yellowish-

\* In Schreber's figure, from the Museum Adolphi Friderici, the tail seems annulated with black and whitish; agreeing in this respect with that of the Annulated Monkey of Pennant; but no mention is made of this particular in Linnæus's description.

white hair: top of the head blackish: hair on the shoulders and upper part of the back lighter than on the lower part: tail as in the former species. Toes with crooked claws instead of flat nails.

N. B. The above three species are extremely nearly allied, and the supposed synonyms are differently applied by different authors.

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SQUIRREL MONKEY.

*Simia Sciurea. S. caudata imberbis, occipite prominulo, unguibus quatuor plantarum subulatis, natibus tectis. Lin. Syst. Nat. p. 43.*

Long-tailed yellowish-grey beardless Monkey, with orange-coloured hands and feet; four of the claws on the hind feet pointed.

Saimiri. *Buff. 15. p. 67. pl. 10.*

Orange Monkey. *Pennant Quadr. p. 220.*

THIS, when seen in perfection, is a beautiful animal. In size it scarce exceeds a squirrel, and is of a bright gold-yellow; but the specimens commonly brought into Europe are rather of a yellowish-brown or greenish cast; with orange-yellow feet and hands. The head round; the nose blackish; orbits of the eyes flesh colour; ears hairy: under parts whitish: tail very long, with a black tip.

## ANTIGUA MONKEY.

*Simia Antiguensis. S. fulvo-nigricans, subtus alba, artubus nigris, facie nigra genis barbatii, cauda prehensils fusca.*

Blackish-fulvous Monkey, white beneath, with black limbs, the face black with bearded cheeks, and brown prehensile tail.

Antigua Monkey. *Pennant Quadr. p. 221.*

WITH a short nose; black face: hair on each side long: back and sides orange and black, intimately mixed: belly white: outside of the legs black; inside ash-coloured: tail of a dusky ash; its length twenty inches: body eighteen. This seems a large species, and is described by Mr. Pennant from one which was brought from Antigua; but its real native place was not known: it was a lively sportive animal: the tail strongly prehensile.

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 NAKED-TAILED MONKEY.

*Simia Morta. S. caudata imberbis spadicea, ore fusco, cauda nuda, squamosa. Lin. Syst. Nat. p. 43.*

Long-tailed beardless brown Monkey, with dusky muzzle and naked scaly tail.

*Cercopithecus americanus minor Monkie dictus. Seba. p. 1. 22. t. 33. f. 1.*

THIS species (if it really exists as such) seems to have been mentioned by Linnæus on the faith of Seba, who has figured it on the thirty-third plate of the first volume of his *Thesaurus*; but it



is now generally imagined, as indeed Linnæus had himself surmised, that it is no other than a young or half-grown specimen of the *S. Sciurea* (Squirrel Monkey) before described. It is of a reddish-brown colour; with a blackish nose; and the tail is bare, as are also the under parts of the body and the limbs.

## LEMUR. MACAUCO.

*Generic Character.*

<i>Dentes Primores superiores</i>	quatuor: intermediis remotis.		<i>Front-teeth</i> in the upper jaw
<i>Inferiores sex: longiores, por-</i>	<i>recti, compressi, paralleli,</i>		four: the intermediate ones
<i>approximati.</i>	<i>Laniarii solitarii, approxi-</i>		remote.
<i>Molares plures sublobati: anti-</i>	<i>tici longiores, acutiores.</i>		In the lower jaw six: longer,
			stretched forwards, com-
			pressed, parallel, approxi-
			mated.
			<i>Canine-teeth</i> solitary, approx-
			imated.
			<i>Grinders</i> several, sublobated:
			the foremost somewhat
			longer and sharper.

THE genus Lemur or Macauco consists of animals approaching to Monkeys in the form of their feet, which, in most species, are furnished with flat nails; but differing in their manners, and void of that mischievous and petulant disposition which so much distinguishes the Monkey Tribe from other Quadrupeds.

In this, as in the former genus, we meet with some species without a tail, while others have





SLOW LEMUR.

that part extremely long. Of the tailless species the most remarkable is the

## SLOW LEMUR.

Lemur Tardigradus. *L. ecaudatus subferrugineo-cinereus, linea dorsali fusca, auriculis brevissimis.*

Tailless Lemur, of a subferruginous ash-colour, with a brown dorsal line, and very small ears.

Lemur tardigradus. *L. ecaudatus. Lin. Syst. Nat. p. 44.*

Lemur Tardigradus. Slow-paced Lemur. *Specul. Linn. 1. t. 5.*

Pâresseux pentadactyle de Bengale. *Vosmaer, pl. 6.*

Le Loris de Bengale. *Buff. suppl. 7. p. 125. pl. 36.*

IT is about the size of a small cat, measuring 16 inches in length: its colour is an elegant pale-brown or mouse-colour; the face flattish: the nose inclining to a sharpened form: the eyes yellow-brown, large, and extremely protuberant; so as to appear, in the living animal, like perfect hemispheres. They are surrounded by a circle of dark-brown, which also runs down the back of the animal. This species is very slow in its motions, and from this circumstance has actually been ranked by some naturalists among the Sloths; though in no other respect resembling them. It is a nocturnal animal, and sleeps, or at least lies motionless, during the greatest part of the day: its voice is shrill and plaintive. The figure given by Vosmaer exhibits it moving slowly on the ground, and may be considered as a very good representation; having been taken from a living specimen. The figure engraved in the *Speculum Linnæanum* is also an accurate representation of

the same animal in its climbing attitude, and was drawn from a living specimen in a perfectly healthy state. If there be any thing faulty in either of the above representations, it is that the eyes are scarce expressed with sufficient fulness and protuberancy, a defect which is remedied in the annexed plate of the present work, in which both these figures are shewn. In this, as in some others, the fingers and toes have rounded nails, as in most of the monkeys; but the inner toe on each hind foot, next the thumb, has a sharp claw. Mr. Vosmaer's description of this animal's manners is extremely accurate, and is confirmed by the observation of several specimens, which have since been brought into Europe, two of which I have myself examined. "I received (says he) this singular animal in June 1768, and, notwithstanding its disagreeable odour, my curiosity induced me to take it into my chamber. It slept all the day to the very evening, and it being then the height of summer, it did not awake till half past eight in the evening. It was kept in a cage of an oblong square shape, with iron wires; and it constantly slept seated on its hind part, close to the wires, with its head bent forwards between the two fore feet, which were placed over its belly. In this attitude it always held itself strongly attached by the two hind feet to the iron wires of the cage; and often by one of the fore feet also; which makes me imagine that it generally sleeps on trees, holding by the branches. Its motion, when awakened, was extremely slow, and always

the same from beginning to end; drawing itself on from bar to bar; taking hold of the upper part of one bar by its fore feet, and not quitting it till it had slowly and very strongly grasped another bar with one of its hands. When it crept on the ground it moved with the same slowness, dragging one foot after the other as if paralytic; and in this motion it raised its body but very little, merely drawing itself forward in such a manner that frequently the belly was scarce a finger's breadth from the ground. It was to no purpose to drive it by passing a stick through the wires, which did not make it let go its hold: if pushed too rudely it bit the stick; and this was all the defence it made. Towards evening it awaked little by little; like one interrupted in sleep after having waked a long time. Its first care was to eat; for by day the moments were too precious to spare from repose. After having finished this task, which it performed sufficiently quick for a Sloth, it evacuated the remains of its former meal: its urine had a strong, disagreeable odour, and its fæces resembled the small pellets of sheep's dung. Its common diet, according to the account of the captain of the vessel which brought it over, was rice boiled very thick; and he had never seen it drink.

“ Being persuaded that this animal would not refuse a different kind of nourishment, I gave it a sprig of lime-tree with leaves on it; but it rejected it: fruits, such as pears and cherries, were more to its taste: it willingly eat dry bread and biscuit; but would not touch them if dipped in water.

Whenever water was offered, it contented itself with smelling it, without drinking. It was passionately fond of eggs. It often made use of its hands in eating, in the manner of a squirrel. I concluded from its eating eggs, that it would also eat birds; and accordingly having given it a live sparrow, it immediately killed it with a bite, and very greedily eat the whole. Curious to know whether insects would also suit its taste, I gave it a live cockchaffer, which it took in its paw and devoured completely. I afterwards gave it a chaffinch, which it also eat with a good appetite, after which it slept the remainder of the day. I have often seen him still awake at two hours after midnight; but from half past six in the morning he was always in a profound sleep, so that his cage might be cleaned without disturbing his repose. During the day, being awaked by force in order to provoke him, he was angry, and bit the stick, but with a very slow motion, and with a reiterated cry of *ai, ai, ai*, lengthening out the *ai* each time into a plaintive, languid, and tremulous sound, in the same manner as is reported of the Sloths of America. After having been thus teized for a long time, and thoroughly awakened, he crawled two or three times round the cage, and immediately slept again."

This slowness of motion and plaintive cry made Mr. Vosmaer consider the animal as a species of Sloth; but it has no other affinity with the Sloths, nor can it be placed in the same genus. It forms a most curious contrast in this respect to that



lively species the Ring-tailed Lemur or Macauco, which exhibits the utmost vivacity in its manners and motions.

The late learned and accomplished Sir William Jones has also given a pleasing general description of this animal in the 4th volume of Asiatic Researches, and as it is always interesting to observe the manners of an animal in its native country, I shall here extract the account in the President's own words.

“ The singular animal, which most of you saw alive, and of which I now lay before you a perfectly accurate figure, has been very correctly described by Linnæus; except that *sickled* would have been a juster epithet than *awled* for the *bent claws* on its hinder indices; and that the *size of a Squirrel* seems an improper, because a variable, measure: its configuration and colours are particularized with great accuracy by M. Daubenton; but the short account of the *Loris* by M. de Buffon appears unsatisfactory, and his engraved representation of it has little resemblance to nature\*; so little, that, when I was endeavouring to find in his work a description of the Quadrumane, which had just been sent me from *Dacca*, I passed over the chapter on the *Loris*, and ascertained it merely by seeing, in a note, the Linnæan charac-

\* Because in reality it represents the next species, or *Loris*, which at that time was confounded, by Buffon and many other writers, with the present animal; though differing much in proportion and manners.

ter of the slow-paced *Lémur*\*. The illustrious *French* naturalist, whom, even when we criticise a few parts of his noble work, we cannot but name with admiration, observes of the *Loris*, that, *from the proportion of its body and limbs, one would not suppose it slow in walking or leaping*, and intimates an opinion, that Seba gave this animal the epithet of *slowmoving*, from some fancied likeness to the Sloth of *America*: but though its body be remarkably long in proportion to the breadth of it, and the hinder legs, or more properly arms, much longer than those before, yet the *Loris*, in fact, walks or climbs very slowly, and is, probably, unable to leap. Neither its genus nor species, we find, are new: yet, as its temper and instincts are undescribed, and as the *Natural History* of M. Buffon, or the *System of Nature* by Linnæus, cannot always be readily procured, I have set down a few remarks on the *form*, the *manners*, the *name*, and the *country* of my little favourite, who engaged my affection while he lived, and whose memory I wish to perpetuate.

“I. This male animal had four hands, each five-fingered; palms naked; nails round, except those of the indices behind, which were long, curved, pointed; hair very thick, especially on the haunches, extremely soft, mostly dark-grey, varied with brown and a tinge of russet; darker on the

\* A most convincing proof of the real merit and superiority of the Linnæan mode of description; so much and so often condemned by the Count de Buffon.

back, paler about the face and under the throat, reddish towards the rump; no tail; a dorsal stripe, broad, chesnut-coloured, narrower towards the neck; a head almost spherical; a countenance, expressive and interesting; eyes round, large, approximated, weak in the day-time, glowing and animated at night; a white vertical stripe between them; eye-lashes, black, short; ears dark, rounded, concave; great acuteness at night, both in seeing and hearing; a face, hairy, flattish; a nose pointed, not much elongated; the upper lip cleft; canine teeth, comparatively long, very sharp.

“ More than this I could not observe in the living animal; and he died at a season when I could neither attend a dissection of his body, nor with propriety request my medical friends to perform such an operation in the heat of *August*; but I opened his jaw, and counted only two incisors above, and as many below, which might have been a defect in the individual; and it is mentioned simply as a fact, without any intention to censure the generic arrangement of Linnæus.

“ II. In his manners he was for the most part gentle, except in the cold season, when his temper seemed wholly changed; and his creator, who made him so sensible of cold, to which he must often have been exposed even in his native forests, gave him, probably for that reason, his thick fur, which we rarely see on animals in these tropical climates: to me, who not only constantly fed him, but bathed him twice a week in water accommodated to the seasons, and whom he clearly dis-

tinguished from others, he was at all times grateful; but when I disturbed him in winter, he was usually indignant, and seemed to reproach me with the uneasiness which he felt, though no possible precautions had been omitted to keep him in a proper degree of warmth. At all times he was pleased with being stroked on the head and throat, and frequently suffered me to touch his extremely sharp teeth; but at all times his temper was quick, and, when he was unseasonably disturbed, he expressed a little resentment by an obscure murmur, like that of a squirrel, or a greater degree of displeasure by a peevish cry, especially in winter, when he was often as fierce, on being much importuned, as any beast of the woods. From half an hour after sunrise to half an hour before sunset, he slept without intermission rolled up like a hedgehog; and as soon as he awoke, he began to prepare himself for the labours of *his* approaching day, licking and dressing himself like a cat; an operation which the flexibility of his neck and limbs enabled him to perform very completely: he was then ready for a slight breakfast, after which he commonly took a short nap; but when the sun was quite set, he recovered all his vivacity. His ordinary food was the sweet fruit of this country; plantains always, and mangos during the season; but he refused peaches, and was not fond of mulberries, or even of guaiavas: milk he lapped eagerly, but was contented with plain water. In general he was not voracious, but never appeared satisfied with grass-

hoppers; and passed the whole night, while the hot season lasted, in prowling for them: when a grasshopper, or any insect, alighted within his reach, his eyes, which he fixed on his prey, glowed with uncommon fire; and having drawn himself back to spring on it with greater force, he seized the prey with both his fore-paws, but held it in one of them, while he devoured it. For other purposes, and sometimes even for that of holding his food, he used all his paws indifferently as hands, and frequently grasped with one of them the higher part of his ample cage, while his three others were severally engaged at the bottom of it; but the posture of which he seemed fondest was to cling with all four of them to the upper wires, his body being inverted; and in the evening he usually stood erect for many minutes, playing on the wires with his fingers, and rapidly moving his body from side to side, as if he had found the utility of exercise in his unnatural state of confinement. A little before day-break, when my early hours gave me frequent opportunities of observing him, he seemed to solicit my attention; and if I presented my finger to him, he licked or nibbled it with great gentleness, but eagerly took fruit, when I offered it; though he seldom ate much at his morning repast: when the *day brought back his night*, his eyes lost their lustre and strength, and he composed himself for a slumber of ten or eleven hours.

“ III. The names of *Loris* and *Lemur* will, no doubt, be continued by the respective disciples

of Buffon and Linnæus; nor can I suggest any other, since the *Panaitis* know little or nothing of the animal: the lower *Hindus* of this province generally call it Lajjábánor, or the Bashful Ape, and the *Musselmans*, retaining the sense of the epithet, give it the absurd appellation of a cat; but it is neither a cat nor bashful; for though a *Pandit* who saw my *Lemur* by day-light, remarked that it was lajjálu, or modest (a word which the *Hindus* apply to all *sensitive plants*), yet he only seemed bashful, while in fact he was dim sighted and drowsy; for at night, as you perceive by his figure, he had open eyes, and as much boldness as any of the *Lemures* poetical or *Linnæan*.

“ IV. As to his country, the first of the species, that I saw in India, was in the district of *Tipra*, properly *Tripura*, whither it had been brought, like mine, from the *Garrow* mountains; and Dr. Anderson informs me, that it is found in the woods on the coast of *Coromandel*: another had been sent to a member of our society from one of the Eastern isles; and though the *Loris* may be also a native of Silan, yet I cannot agree with M. de Buffon, that it is the minute, sociable, and docile animal mentioned by Thevenot, which it resembles neither in size nor in disposition.

“ My little friend was, on the whole, very engaging; and when he was found lifeless, in the same posture in which he would naturally have slept, I consoled myself with believing that he had died without pain, and lived with as much

pleasure as he could have enjoyed in a state of captivity.”

From the above description we perceive that this animal, slow and inert as it is, is yet not quite so torpid and inactive in India, as when brought into the colder climates of Europe.

The following observations, communicated by the excellent anatomist Mr. Carlisle, cannot but be acceptable to the reader. They are accompanied by an engraving from his elegant drawings.

“ The body of a Lemur tardigradus having been presented to me by a friend, for the purpose of dissection, I injected the arterial system, and upon tracing the course of the vessels, so as to make a dried preparation, an unusual appearance of distribution was exhibited by the large trunks of the subclavian and external iliac arteries.

“ Immediately after the subclavian has penetrated the axilla, it is divided into twenty-three equal-sized cylinders, which surround the principal trunk of the artery, now diminished in size to an inconsiderable vessel. These cylindrical arteries accompany each other and divide with the ulnar and radial branches, being distributed in their route upon the muscles, each of which has one of these cylinders. The other branches, for example, the radial and ulnar, proceed like the arteries in general; dispersing themselves upon the skin, the membranes, joints, bones, &c. in an arborescent form. The iliac artery divides upon the margin of the pelvis into upwards of twenty equal-sized cylinders, surrounding the main trunk, as described in the axillary artery:

these vessels are also finally distributed as in the upper extremity; the cylinders wholly upon the muscles, and the arborescent branches on all the other parts. The carotid arteries do not divide into equal-sized cylinders, but are distributed as in the generality of animals.

“ It would be of some importance in physiology to ascertain whether the other slow-moving Quadrupeds have any peculiar arrangement of the arteries of their limbs. This solitary fact is hardly sufficient for the foundation of any theoretical explanation of the slow movement of these muscles: if, however, it should be corroborated by similar circumstances in other animals, a new light may be thrown upon muscular motion by tracing a connection between the kind of action produced in a muscle, and the condition of its vascularity or supply of blood.”

Fig. 1. The arm and shoulder of the lemur *tardigradus*.

- a. The subclavian artery, lying upon the subscapularis muscle.
- b. The division of the artery into equal-sized cylinders.
- c. The ulnar artery proceeding to divide in the usual manner.

Fig. 2. The trunk, from below the diaphragm, of the lemur *tardigradus*, one of the limbs being left unfinished, as it appeared unnecessary to represent them both.

- a. The diaphragm.
- b. The descending aorta.
- c. c. The iliac arteries.
- d. The trunk of the inguinal artery, situated among the cylinders.
- e. The femoral artery under similar circumstances.



Fig. 2



Fig. 1









LORIS.

## LORIS.

Lemur Loris. *L. ecaudatus subferrugineo-cinereus, artubus gracilimimis, auriculis magnis.*

Tailless Lemur of a subferruginous ash-colour, with extremely slender limbs and large ears.

Animal cynocephalum ceilonicum. *Seb. mus. 1. p. 55. t. 35.*

Le Loris. *Buff. 13. pl. 30.*

Loris Macauco. *Pennant Quadr. p. 228.*

By a singular fatality it has happened that this species, though perfectly distinct from the former, and in manners totally different, has yet been confounded with it by many writers on Natural History. It is considerably smaller than the former; its body is slender; its limbs remarkably thin; and it is, like the former, perfectly destitute of a tail; and this circumstance seems to have caused the general mistake among naturalists. It is said, by those who have contemplated it in its native climate, to be a perfect contrast to the former in its motions; being possessed of great agility and liveliness. In colour it nearly resembles the former species, but is paler, and more inclining to a yellow tinge. It is very elegantly figured in Seba's Thesaurus. At first view of the figure one would be apt to imagine that it had been taken from a dried specimen, in which the limbs had shrunk from their former or natural dimensions; but the several specimens preserved in Museums, in whatever manner prepared, confirm the truth of the representation; the same

gracility of limbs and body being in all equally conspicuous.

It has been observed, in a note relative to the former species, that this is the animal figured in Buffon; and it is farther remarkable, that, by an aukward mismanagement relative to the posture, it is made to appear a short instead of long-bodied animal.

The figure in the present work is from a beautiful and perfect specimen in the Leverian Museum; but which, representing the animal in a ringent state, exhibits perhaps an air of fierceness not perfectly according with its character.

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INDRI.

Lemur Indri. *L. ecaudatus niger, subtus griseus, facie natibusque albidis.*

Tailless black Lemur, greyish beneath, with the face and space round the tail whitish.

Indri. *Sonnerat voy. 2. pl. 142. pl. 8.*

Lemur Indri. *L. ecaudatus niger. Lin. Syst. Nat. Gmel. p. 42.*

Indri Macauco. *Pennant Quadr. 1. p. 228.*

THIS is a very large species. It is entirely of a black-colour, except on the face, which is greyish: a greyish cast also prevails towards the lower part of the abdomen, and the rump is white. The face is of a lengthened or dog-like form: the ears shortish and slightly tufted: the hair or fur is silky and thick, and in some parts of a curly or crisped appearance: it is the largest animal of



INDRI





this genus, and is said by Mons. Sonnerat, its first describer, to be three feet and a half high. It is said to be a gentle and docile animal, and to be trained, when taken young, for the chase, in the manner of a dog. Its voice resembles the crying of an infant. It is a native of Madagascar, where it is known by the name of Indri, which is said to signify *the man of the wood*. The nails in this species are flat, but pointed at the ends; and there is no appearance of a tail. The front or cutting teeth in the upper jaw are four, according to Mons. Geoffroy (*Magaz. Encyclopédique*), not two, as mentioned by Mr. Sonnerat.

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POTTO.

Lemur Potto. *L. caudatus subferrugineus, cauda unicolor.* Lin.

*Syst. Nat. Gmel. p. 42.*

Tailed subferruginous Lemur, with tail of the same colour.

Potto. *Bosman Guin. 2. p. 30. f. 4.*

THIS seems at present an obscure species; known only from the description and figure in Bosman's account of Guinea. This description states that the animal is called Potto by the natives, but by the Europeans Sloth, from the extreme slowness of its motions. He then proceeds to give the usual description of the manners attributed to the real Sloth, such as its scarce being able to walk ten paces in a day; its eating up all the fruit and leaves of a tree, and thus becoming

fat, after which it grows lean, and is in danger of starving before it can climb a second tree, &c. &c. All this, however, he does not pretend to avouch from his own knowledge, but tells us, that the negroes believe it. He assures us, however, that this animal is inconceivably ugly, and that when old it is covered with reddish flocky hair like wool; though it appears brown and smoothish when young. He does not mention its size. The figure bears some resemblance to the Lemur tardigradus, but is represented with a tail of some length.

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 WOOLLY.

Lemur Mongoz. *L. caudatus griseo-fuscus, cauda unicolore.*

Long-tailed grey-brown Lemur, with tail of a similar colour

Lemur Mongoz. *L. caudatus griseus, cauda unicolore.* *Lin. Syst.*

*Nat. p. 44.*

Mongous. *Buff. 13. p. 198. pl. 26. and suppl. 7. p. 118. pl. 32.*

Mongooz. *Edw. pl. 216.*

Woolly Macauco. *Pennant Quadr. Buff. 1. p. 229.*

THIS species is about the size of a cat, and is of an uniform dusky-brown-colour, with the breast and belly white or whitish. The tail is very long and thickly covered with fur: the whole animal is also covered with thick, soft, wavy or curling fur. The eyes are of a bright orange-colour; and are surrounded by a circle of black, which descends to some little distance down the nose; the remainder, with the cheeks, being white: the



WOOLY LEMUR.



hands and feet are naked and dusky; the nails flat, except on the interior toe of the hind feet next the thumb, which has a sharp claw. This species varies sometimes a little in colour; the ends of the limbs and the paws being of a dull orange-colour, or yellow, and sometimes white, with the face entirely brown. It is a native of Madagascar and some other Indian islands; and lives principally on fruit. When in a state of captivity it is commonly gentle and sportive. That described by the Count de Buffon seems to have been of a different disposition; but individuals of all animals must be supposed to differ from each other with respect to temper and manners, according to circumstances. The individual just mentioned uttered almost constantly a low grunting noise; and when tired of being alone, croaked in the manner of a frog, so loud as to be heard to a great distance: its tongue was rough, like that of a cat; and the Count de Buffon adds, that, when permitted, it would lick a person's hand till the skin was inflamed. This species appears also to vary sometimes in size. The larger variety is described and figured in the Count de Cepede's additions to Buffon's History of Quadrupeds, under the title of *Le grand Mongous*; and seems to differ in no other respect than size from the animal in its usual state.

## RUFFED LEMUR.

Lemur Macaco. *L. caudatus niger, collari barbato.* *Lin. Syst. Nat.* p. 44.

Tailed black Lemur, with the neck bearded in the manner of a ruff.

Black Maucauco. *Edw. pl.* 217.

Vari. *Buff.* 13. p. 174. *pl.* 17.

Ruffed Macauco. *Pennant Quadr.* 1. p. 231.

THIS is the species described by the Count de Buffon under the name of the Vari, its colours often consisting of a patched distribution of black and white; though its real or natural colour is supposed to be entirely black. In size it exceeds the Mongoz, or Brown Lemur. It is said to be a fierce and almost untameable animal. It inhabits the woods of Madagascar and some of the Indian islands; and is said to exert a voice so loud and powerful as to strike astonishment into those who hear it, resembling, in this respect, the howling Monkey or S. Belzebub, which fills the woods of Brasil and Guiana with its dreadful cries. When in a state of captivity, however, it seems to become as gentle as some others of this genus. That described and figured by Edwards was an example of this, and is expressly said to have been "a very sociable, gentle, harmless-natured animal, not having the cunning, mischievousness, or malice of the Monkey kind."

The astonishing strength of voice in this animal, depends, according to the Count de Buffon, on the peculiar structure of the larynx, which





FLOCKY LEMUR.



widens, immediately after its divarication, into a large cavity before entering the lungs.

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FLOCKY LEMUR.

Lemur Laniger. *L. caudatus ex flavo rufescente testaceus subtus albus, cauda ex rufescente fulva unicolore.* *Lin. Syst. Nat. Gmel.*  
p. 44.

Tailed pale-tawny Lemur, white beneath, with ferruginous tail.

Maquis à bourres. *Sonner. voy. 2. p. 142. pl. 89.*

THIS is described by Sonnerat as a large species; measuring a foot and nine inches from nose to tail; the tail being also nine inches. Its colour is a pale yellowish-ferruginous on the upper parts, and white beneath: the tail bright ferruginous. The fur is extremely soft and crisped, and of a deeper colour on the region of the loins: the face is black: the ears small: the eyes large, and of a greenish-grey: in the upper jaw, are two fore-teeth: in the lower jaw four: the feet have five fingers, which have long claws, except the thumbs, which have rounded nails. Mr. Pennant, in the last edition of his History of Quadrupeds, seems to think this animal no other than the *L. Mongoz*, or Woolly Macauco, and complains that Sonnerat's figure is very inaccurate; but if Sonnerat's description be just, the species must certainly be a different one from the *L. Mongoz*. Two smaller varieties of the Flocky

Macauco are described and figured in the supplement to Buffon, viz.

Le Petit Makis Gris. *Buff. suppl. p. 121. pl. 34.*

This pretty little animal, says the Count de Cedepe, was brought from Madagascar, by Mons. Sonnerat. It has the whole body, except the face, feet, and hands, covered with a greyish woolly fur, thick and soft to the touch. Its tail is very long and covered with fur similar to that of the body. It is much allied to the Macauco, both in its form and attitudes, as well as in the nimbleness of its motions; but the Macauco stands higher on its legs. In both the fore legs are shorter than the hind. The colour of this little Lemur is, as it were, marbled with pale tawny: the fur being mouse-grey at the roots, and pale tawny at the extremities. The fur on the upper part of the body is six lines long, and four on the under part. The whole under part is white from the lower jaw; but the white is a little mingled with yellowish and greyish on the belly and under parts of the limbs. The head is very large in front, and the snout is very pointed, which gives a great sharpness to the physiognomy of the animal: the forehead is straight; the eyes round and full: the ears are nine lines high, and seven broad: they differ from those of other Macaucos, which are large, and, as it were, flattened at the ends. Those of this little species are large at the base, and rounded in outline: they are co-

vered and edged with ash-coloured hairs. The circumference of the eyes, the ears, and the sides of the cheeks, are of a clear ash-colour, as well as the fore parts of the arms and legs. The length of this animal, measured in a straight line, is ten inches and three lines; but if measured according to the curvature of the body, one foot and two lines: the length of the head, from the tip of the nose to the hind part, is two inches and five lines. The interior toe is furnished with a sharp crooked claw: the rest with nails. The tail is fifteen inches long, of an uniform thickness throughout its whole length, and of the same colour with the body; the tip is rather deeper than the rest, and the fur on this part measures seven lines. It must be considered, I think, in no other light than as a variety of the *L. laniger*.

Autre Espece de Maki. *Buff. suppl. p. 123. t. 35.*

This, which is also described by Cepede, seems greatly allied to the former; from which it differs, on a general view, principally in the tints and distributions of its colours. Its fur resembles that of the former, but is more thick, woolly, crisp, and tufted, as it were, causing the animal to appear thicker in proportion. The head is large, and the snout not so long in proportion as in the *Vari*, the *Mongoz*, and the *Macauco*. The eyes are very large, and the eyelids bordered with blackish. The forehead is large, and the ears short and hid in the fur. The fore legs short in comparison with the hinder. The tip of the nose

is covered by a large black patch, running up into a point on the nose, and covering part of the upper jaw. The length of the animal, from the tip of the nose to the beginning of the tail, is eleven inches and six lines: the tail is ten inches and ten lines, and is of an uniform thickness. The general colour of this animal is brown and ash-tawny in different shades; the hair being brown with tawny tips. The under parts are of a dirty white tinged with tawny. The brown predominates on the head, the back, and upper parts of the limbs; and the ash-tawny prevails on the sides of the body and limbs: the tawny tinge is deepest round the ears. All the part of the back nearest the tail is tinged with tawny, which becomes orange throughout the whole length of the tail. The hands and feet are covered with ash-tawny hairs; but the fingers and nails are black. The thumb or great toe of the hind feet is large, and has a thin round nail; and the second toe is connected to it by a blackish membrane.





RING-TAILED LEMUR

## RING-TAILED LEMUR.

Lemur Catta. *L. caudatus, cauda albo nigroque annulata.* Lin.  
*Syst. Nat.* p. 45.

Long-tailed Lemur, with the tail annulated with black and white.

Mococo. *Buff.* 13. p. 174. pl. 22.

The Maucauco. *Edw.* pl. 197.

Ring-tailed Lemur. *Museum Leverianum.* No. 6. p. 43. pl. 11.

Ring-tailed Macauco. *Pennant Quadr.* 1. p. 230.

THIS is by far the most beautiful animal of the genus. Its size is that of a small cat, but of a more slender shape: its colour is a pale greyish-brown, with a slight cast of ferruginous on the back and outsides of the limbs: the under parts of the body are whitish. The nose black: the eyes bright orange-hazel, surrounded by a distinct circle of black: the hands and feet black; the fingers and toes furnished with round nails. The tail is very long, and beautifully marked throughout the whole length with distinct circles of black and white: the fur on the whole animal, but more particularly on the tail, is very fine, soft, and suberect in its growth, so as to give a greater degree of thickness to the tail than if it grew in a more oblique direction. The manners of this species are gentle and lively: it possesses the highest degree of activity, and its motions have an ease and elegance surpassing almost every other quadruped. In their native state these animals live in society, and are seen in troops of thirty or forty together in the woods, where they

feed principally on fruits. In a state of confinement they will not only eat fruits of different kinds, but likewise animal food; and in this respect the present species, the Mongoz, and the Vari agree; all feeding nearly in the same manner. The Macauco delights much in sunshine, and in sitting before the fire: its general attitude at such times is similar to that assumed by a squirrel when feeding, sitting upright and often extending forwards its spread hands.

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HEART-MARKED LEMUR.

Lemur Bicolor. *L. caudatus, supra ex atro griseus, subtus sordide albus, macula frontali cordata sordide alba.* *Lin Syst. Nat. Gmel. p. 44.*

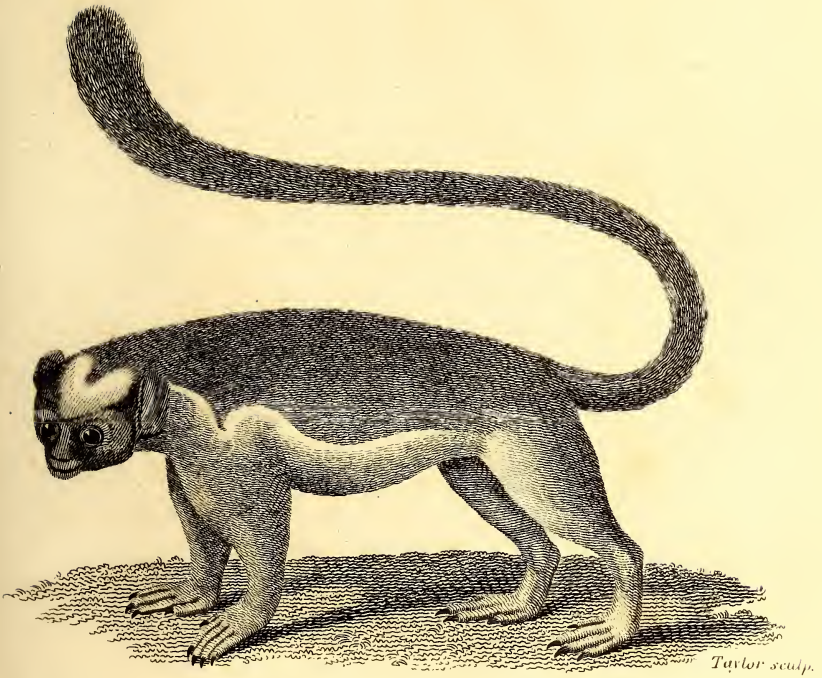
Long-tailed blackish Lemur, white beneath, with a white heart-shaped spot on the forehead.

Lemur Bicolor. *Miller Cimel. Phys. p. 64. pl. 32.*

Heart-marked Maucauco. *Pennant Quadr. append. p. 223. pl. 106.*

THIS species has the face, upper part of the neck and back, hind part of the thighs, and the tail, black: the under part of the neck and body, and the limbs, white. On the forehead is a large heart-shaped spot pointing downwards. The tail is considerably longer than the body, and thickens gradually towards the tip. The feet are furnished on all the toes with strong sharp claws of a black colour; in which particular it differs from other animals of this genus. It is supposed to be a native of South America.





HEART-MARKED LEMUR.



## TARSIER.

Lemur Tarsier. *L. caudatus cinereus, cauda gracili subnuda apice subfloccosa, pedibus posterioribus longissimis.*

Long-tailed ash-coloured Lemur, with slender and almost naked tail, tufted at the end, and very long hind feet.

Tarsier. *Buff.* 13. p. 87. pl. 9.

Didelphis Macrotarsus. *Lin. Syst. Nat. Gmel.* p. 109.

Tarsier Maucauco. *Pennant Quadr.* 1. p. 231.

THIS animal is distinguished by the great length of its hind legs. Its general length from the nose to the tail is almost six inches; and from the nose to the hind toes eleven inches and a half: the tail nine inches and a half. The face is sharp or pointed: the eyes very large and full: the ears upright, broad, naked, and rounded. Between the ears on the top of the head is a tuft of long hairs: several long hairs also proceed from each side of the upper chap: in each jaw, according to the observation of Mr. Pennant, are two cutting, and two canine teeth, forming an exception in this respect to the rest of the genus. The body is of a slender form; the feet are slender and the claws pointed: the thumbs are large and rounded. The legs and feet are but thinly covered with hair: the tail also is thinly covered, except towards the end, where it is terminated by a tuft. The colour of this species is grey-brown or mouse-colour, paler beneath. It is a native of Amboina and some other East-Indian Islands.

## MURINE LEMUR.

Lemur Murinus. *L. caudatus cinereus, cauda ferruginea.* Lin.  
*Syst. Nat. Gmel. p. 44.*

Long-tailed ash-coloured Lemur, with ferruginous tail.

Little Lemur. *Brown Illustr. Zool. p. 108. pl. 44.*

Lemur Murinus. *Cimelia Physica. p. 25. pl. 13.*

Murine Maucauco. *Pennant Quadr. 1. p. 232.*

Little Maucauco. *Pennant Quadr. 1. p. 233.*

Rat de Madagascar. *Buff. suppl. 3. p. 149. pl. 20.*

THIS species is extremely well figured in Brown's Illustrations of Zoology, from a living specimen which was kept some time in England. Its size was somewhat less than the black rat; and its colour is an elegant pale cinereous or grey on the upper parts, and white beneath: the eyes are encircled by a zone of a deeper colour: the ears are large, naked, rounded, and thin: the eyes very large and full: the tail is hairy, of the length of the body, and prehensile, or capable of coiling at pleasure round any object, as in some of the small monkeys: the toes are rounded at the ends, and have also rounded nails, but those on the first toe on each hind foot are long and sharp. This, as Mr. Pennant observes, seems to be the same animal with that figured in Buffon, under the title of Rat de Madagascar; and which is supposed to live in the palm-trees, and feed on fruits: it eats, holding its food in its fore feet, like a squirrel: has a weak cry, and when sleeping rolls itself up. This also is the animal which is suspected to have given rise to the doubtful species of Monkey, called by Linnæus



MURINE LEMUR.

*White sculp.*



*Simia Syrichta*: the figures of Camelli, which we have added to the description of that animal, appearing to possess the character of a Lemur rather than of a genuine *Simia*; but this must be considered as a matter of doubtful speculation. It should be added, that the Rat de Madagascar of Buffon is said to have been a fierce untameable little animal; and that it was kept some years in France, generally residing in a warm room, and feeding on almonds, &c.

Mr. Miller's Figure in the *Cimelia Physica* is still smaller, not exceeding a half-grown rat in size: it is an animal of great beauty: the general colour is a most elegant pale-grey: the insides of the ears and orbits of the eyes flesh-coloured: the eyes bright hazel, and the tail bright ferruginous. The whole animal is well covered with fur. The tail is thickly furred, and still more so towards the extremity. When sleeping it rolls itself up, as expressed in the plate.

Mr. Pennant, in a letter to myself, some time before the publication of the last edition of his *History of Quadrupeds*, expresses a doubt whether this animal may not be the same with the preceding, or a sexual difference; since it seems to agree in almost all particulars except the colour of the tail; and, on farther consideration, I am inclined to think that this circumstance is, in reality, no objection against the identity of the two animals, the tail in that figured in Brown's *Illustrations of Zoology* being described and represented as of a pale subferruginous-brown.

## WHITISH LEMUR.

Lemur Calago. *L. caudatus albidus, subtus griseus, cauda ferruginea.*

Long-tailed whitish Lemur, grey beneath, with ferruginous tail.  
Calago. *Geoffr. Magaz. Encyclop. 1. p. 41. pl. 1.*

THIS is one of the smaller species, measuring about six or seven inches from the nose to the tail, which is about eight inches long. Its colour is a yellowish-white above, and ash-coloured beneath; but the tail is ferruginous, and the head almost entirely grey. It is to be observed also, that the hairs on the body are grey for the greatest part of their length, the tips alone being white; thus causing the white or whitish-yellow tinge before mentioned. The ears are thin, upright, rounded at the tips, and very large. The hind legs are much longer than before: the index or first finger of the hind feet is furnished, as in most others of this genus, with a sharp claw, while all the rest have rounded nails. The Galago is an animal of a mild disposition: it is almost always found on trees, and lives on insects, which it easily catches with its fore feet, and devours with singular readiness. It brings forth its young in the hollows of trees, where it prepares its nest, which it lines with herbage. The negroes of Galam hunt these animals for the purpose of food. We owe the first knowledge of this species to Mons. Adanson, who discovered it in Senegal.



## LONG-FINGERED LEMUR.

Lemur Psilodactylus. *L. cinereo-ferrugineus, cauda villosissima, digito palmarum medio longissimo nudo.*

Ash-ferruginous Lemur, with extremely villose tail, and the middle finger of the fore feet very long and naked.

Aye Aye. *Sonnerat voy. aux Indes, or. 2. p. 142. pl. 88.*

*Buff. suppl. 7. p. 268. pl. 68.*

Aye Aye Squirrel. *Pennant Quadr. 2. p. 142.*

Lemur Psilodactylus. *Schreber suppl.*

THIS highly singular species has so much the general appearance of a Squirrel, that it has been referred to that genus both by Mr. Pennant in the last edition of his History of Quadrupeds, and by Gmelin in his enlarged edition of the Systema Naturæ of Linnæus. The account, however, given by Mons. Sonnerat, its first describer, seems to prove it a species of Lemur. Mr. Sonnerat observes, that it seems allied to the Maucos, the Squirrels, and the Monkies. It measures from fourteen to eighteen inches from the nose to the tail, which is about the same length. The general colour of the animal is a pale ferruginous-brown, mixed with black and grey: on the head, round the eyes, and on the upper parts of the body, the ferruginous-brown prevails, with a blackish cast on the back and limbs: the tail is entirely black: the sides of the head, the neck, the lower jaw, and the belly, are greyish: there are also a kind of woolly hairs of this colour, and of two or three inches in length, scattered over the whole body: the thighs and legs have a red-

dish cast: the black prevails on the feet, which are covered with short hairs of that colour: the head is shaped like that of a Squirrel; and there are two cutting teeth in front of each jaw: the ears are large, round, and naked, resembling those of a bat, and of a black colour. The feet are long, and somewhat resemble those of the Tarsier: the thumbs or interior toes of the hind feet are short, and furnished with flat, round nails, as in the *Maucos*; but the principal character of the animal consists in the extraordinary structure of the fore feet, which have the two middle toes of an uncommon length, most extremely thin, and perfectly naked, except at their base: all the claws on the fore feet are sharp and crooked. It is a timid animal; and can scarce see distinctly by day, and its eyes, which are of an ochre colour, resemble those of an owl. It is extremely slow, and of a mild disposition: those which were kept by Mr. Sonnerat slept almost continually, and were scarce to be awakened but by shaking two or three times: they lived about two months, during which time they had no other nourishment but boiled rice, which they took up with their long fore toes, in the manner that the Chinese use their eating-sticks. During the whole time that these animals were kept by Mr. Sonnerat, he never observed them to set up the tail in the manner of a Squirrel, but always to carry it trailing at length. The figure in the supplemental volume of Buffon is wrong in this respect; as well as in not ex-

pressing with sufficient precision the extreme thinness of the two middle toes.

This species is a native of Madagascar, where it inhabits woods: it is extremely rare, and is supposed to feed on fruits, insects, &c. it is fond of warmth, and has the same slow motion as the Lemur tardigradus. Its native name is *Aye Aye*, which is said to be taken from its natural voice or cry, which resembles a feeble scream.



A NEW arrangement of the animals of the Linnæan genus Lemur is proposed by Mons. Geoffroy, who distributes them into five distinct genera, in the following manner:

## I.

### INDRI.

Four upper cutting-teeth, standing distant in pairs. Four lower ones horizontal.

1. *Indri brevicaudatus*. *Short-tailed Indri*. Blackish Indri, with very short tail.

Indri Sonn. Lemur indri. Gmel. Syst. Nat.

2. *Indri longicaudatus*. *Long-tailed Indri*. Tawny Indri, with very long tail.

Le Maki à bourres. Sonn.

Lemur laniger. Gmel. Syst. Nat.

Le Maki fauve. Buff. suppl. 7. pl. 35.

## II.

## MAKI. LEMUR.

Four upper cutting-teeth, standing distant in pairs. Six lower ones, directed obliquely forwards. Long tail.

1. *Le Maki Mococo. Lemur Catta.* With tail annulated with black and white.  
*L. Catta. Lin.*  
*Mococo. Buff.*
2. *Le Maki Mongous. L. Mongoz.* Grey M. white beneath, with a black circle round the eyes, and a tail of the same colour with the body.  
 A. With grey hands.  
*Edw. Glanures. 1. p. 12. pl. 216.*  
 A. With tawny hands.  
*Buff. 13. p. 174. pl. 26.*
3. *Le Maki Brun. L. fulvus.* Brown M. grey beneath, with black head.  
 A. With tawny hands.  
*Buff. suppl. 7. pl. 33.*  
 B. With brown hands. An unpublished variety, in the possession of Mons. Marechal. This is probably the kind named Bugee by Petiver.
4. *Le Maki Noir. L. Niger.* Entirely black, with long hair round the neck.  
*Edw. Glan. pl. 17.*
5. *Le Maki Vari. L. Macaco.* Variegated with large regular patches of black and white, with long hair round the neck.  
 A. *Le vari commun.*  
*Buff. 13.*  
 B. *Le vari à ceinture.*

This is a variety differing only from that described by Buffon in the distribution of its colours; having the head, body, and tail, black, with a white circle round the neck: the fore part of the legs, back of the thighs, and a transverse band on the middle of the back, are also milk-white.

6. *Le Maki à front blanc*. *L. albifrons*. Brown, with the top of the head and the cheeks white.

A new species, which I have observed to be constant in form and colours in three specimens which I have examined: it is, perhaps, to this that the Lemur bicolor, *Gmel. Syst. Nat.* belongs.

7. *Le Maki gris*. *L. griseus*. Grey above, paler beneath, with short muzzle.

*Le Grisnet*. *Buff. suppl.* 7.

*Lemur murinus*. *Gmel.*?

8. *Le Maki nain*. *L. Pusillus*. Tawny ash-coloured, with the lower canine teeth and first pair of grinders pointing forwards.

*Rat de Madagascar*. *Buff. suppl.* 3. *pl.* 20.

All the species of Indri and Lemur are natives of Madagascar.

### III.

#### LORIS.

Four upper cutting-teeth standing distant in pairs: six lower ones, directed obliquely forwards: tail none, or next to none.

1. *Le Loris grele*. *Loris gracilis*. No tail; upper cutting-teeth equal.

*Loris*. *Buff.*

Native of the East Indies.

2. *Le Loris paresseux*. *Loris tardigradus*. Tail extremely short: lateral cutting-teeth shorter than the rest.

*Lemur tardigradus*. *Lin.*

*Parsseux de Bengale*. *Vosm.*

Native of Bengal, Ceylon, &c.

### IV.

#### GALAGO.

Two upper cutting-teeth very remote: six lower ones directed obliquely forwards: the four intermediate ones united by pairs.

1. *Le Galago du Senegal*. *Galago Senegalensis*.

## V.

## TARSIER.

Four upper cutting-teeth placed near together: lateral ones very small; two lower vertical.

1. *Le Tarsier de Pallas. Tarsius Pallasii.* With obtuse cutting-teeth; the superior middle ones rather short.

Lemur Spectrum. *Pall. glires.*

2. *Le Tarsier de Daubenton. Tarsius Daubentonii.* With weak cutting-teeth; the upper middle ones very long.

Tarsier. *Daub. Buff. 13.*

The Tarsiers inhabit the remotest isles of the Indian ocean, as Macassar, Amboina, &c.

From the above distribution, it should seem that Mons. Geoffroy has considered some animals of this genus as distinct species, which are, perhaps, rather varieties. It may also be added, that if this exact observation of the teeth were attended to, the genus *Vespertilio* might with equal propriety be distributed into several distinct genera; but it may be doubted whether the study of Natural History would be facilitated by such an arrangement.

## GALEOPITHECUS. COLUGO.

*Generic Character.*

<i>Dentes Prīmares superiores</i> nulli.	<i>Front-teeth</i> in the upper jaw none.
<i>Inferiores sex, lati, breviusculi, distantes, pectinati.</i>	In the lower six, short, broad, distant, pectinated.
<i>Laniarii brevissimi, trianguli, lati, acuti, serrati.</i>	<i>Canine-teeth</i> very short, triangular, broad, sharp, serrated.
<i>Molares quatuor, truncati, prominentiis conicis muricati.</i>	<i>Grinders</i> four, truncated, and muricated with conical protuberances.
<i>Pellis volatica corpus caudam artusque ambiens.</i>	<i>Flying-skin</i> surrounding the body, limbs, and tail.

THIS singular animal, which, from its size and extraordinary conformation, claims a conspicuous place among the productions of Nature, has but lately been examined with the degree of exactness necessary for ascertaining clearly its generic characters. It is to Dr. Pallas that we owe the exact knowledge of these particulars, and an accurate description, accompanied by good figures, may be found in the Transactions of the Academy of Petersburg, for the year 1780.

## GALEOPITHECUS VOLANS.—FLYING COLUGO.

Galeopithecus Volans.

Lemur Volans. *L. caudatus, membrana ambiente volitans.* Lin.

*Syst. Nat. p. 45.*

Vespertilio admirabilis. *Bontius Jova. 68. t. 69.*

Felis volans ternatea. *Seba mus. 1. p. 93. t. 58. f. 2, 3.*

Cato-Simius volans Camelli. *Peti-v. gaz. 14. t. 9. f. 8.*

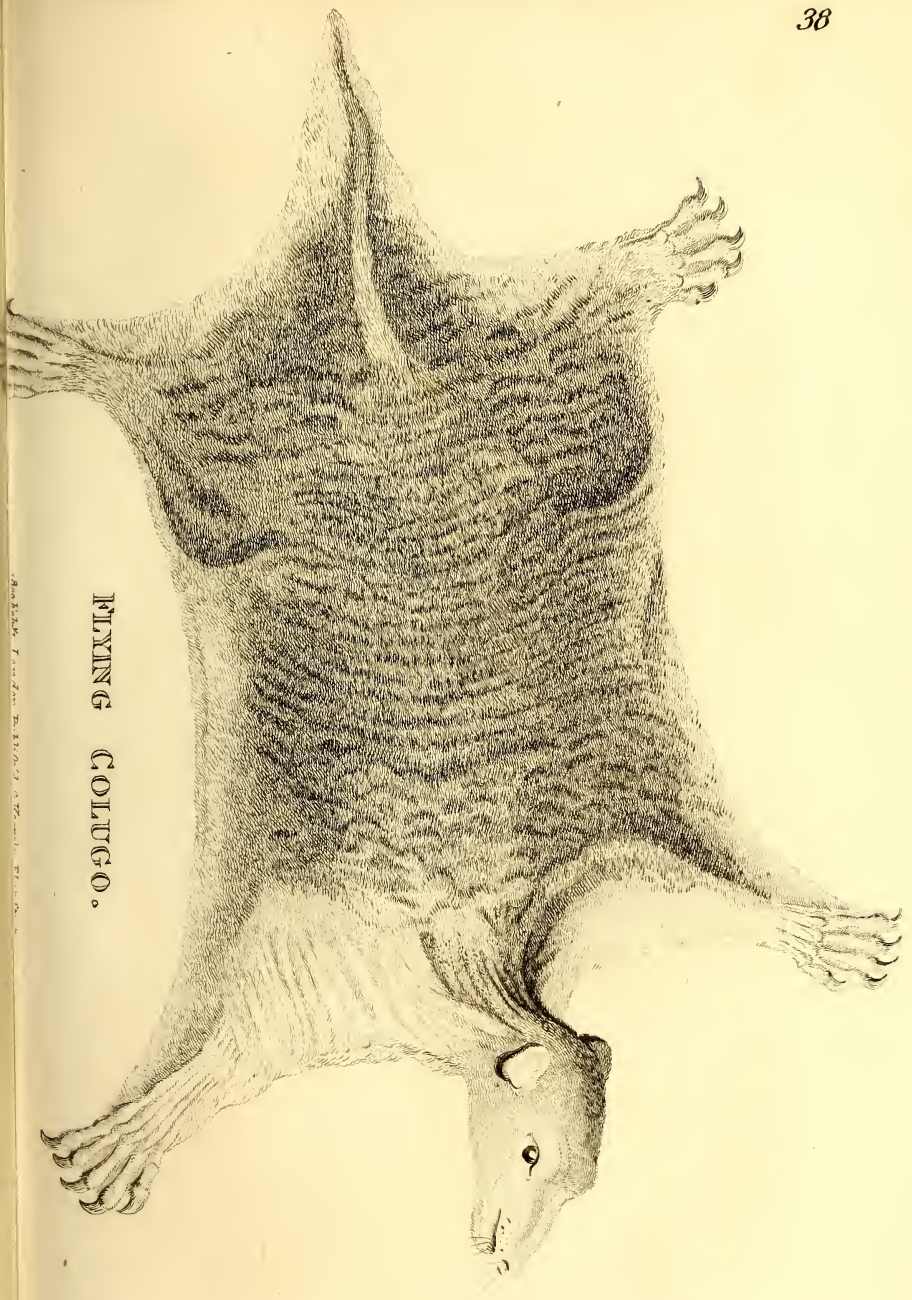
Galeopithecus. *Pallas act. acad. petrop. 1780. p. 280. t. 7, 8.*

Flying Macauco. *Pennant Quadr. 1. p. 234. pl. 50.*

THE Colugo is a native of the Molucca and Philippine islands, where it is said to frequent woody places, and to feed principally on fruits. It almost constantly resides on trees, and makes use of its membranes in the same manner as the flying squirrel. In descending from the top of a tree, it spreads its membranes, and balances itself to the place it aims at in a gentle manner; but in ascending it uses a leaping pace. It has two young, which are said to adhere to its breasts by the mouth and claws. The whole length of the animal is about three feet: the breadth, when expanded, nearly the same: the tail is slender and about a span long. The membrane, or expansile skin, by which it is enabled to fly, is continued, on each side, from the neck to the fore feet; thence to the hind feet; and again to the tip of the tail: it is not naked, like the skin of a bat's wing, but covered with fur, in the same manner as the body: the inner or lower side, however, appears membranaceous, and is marked by nume-



MINING COLTGO.



From the collection of the U.S. Geol. Surv. No. 11, 1877.

Handy Copy



rous veins and fibres dispersed through it. The whole upper side of the animal is generally of a deep ash-colour, most so in those which are full-grown, and blacker in the younger or less advanced specimens: the back also, in the full-grown animals, is crossed transversely with blackish lines; towards the edges, is commonly a tinge of yellowish, and the whole under side, both of the body and membrane, is of a yellowish colour. The head is long: the mouth rather small; the tongue, according to Dr. Pallas, fleshy, broad, rounded, attenuated on the edges, and ciliated with papillæ, as in the Opossums: it is also slightly beset with papillæ on its surface. There are no fore-teeth in the upper jaw, but in the lower are six, which are short, broad, and pretty deeply pectinated, so as to resemble little combs on their upper part: the canine teeth, or at least those which Dr. Pallas considers as such, are shaped somewhat like the petrifications known by the name of *glossopetræ*, being triangular, very broad at their base, very short, sharp-pointed, and serrated: the grinders, or molares, which are generally four, both above and below, are of an abrupt or truncated form, and roughened with conical protuberances. The ears are small, round, membranaceous, and marked internally by numerous semicircular transverse streaks, as in a bat. The legs are clothed with a soft yellow down: there are five toes on each foot, united by a common membrane, and terminating in large, thin, broad, very sharp crooked claws.

This animal is said to be called by the Indians *Caguang*, *Colugo*, and *Gigua*. It was first described by Bontius, in his History of Java. He informs us, that it is found in Guzarat, in India; that it is a gregarious animal, and flies principally in the evening; and that its body is of the size of a cat, and is covered above with a soft grey fur, like that of a rabbit; that the head is oblong, the ears small and round, and that it has five strong claws on each foot, by which it holds firmly whatever it seizes, and that it feeds chiefly on fruits. Camelli, in his enumeration of the animals of the Philippine isles, published by Petiver in the Philosophical Transactions, describes it as about the size of a cat, shaped like a monkey, but more slender, and of the length of about three spans from head to tail; but adds, that in some parts it arrives at a far larger size, so as to equal a Chinese umbrella in expanse. He describes the colour on the upper parts as dusky, and elegantly variegated with whitish streaks on the back, running beyond the body over the flying membrane: the face he compares to that of a monkey, and the manner of flight to that of a flying squirrel: Camelli adds, that the young adhere to the teats of the parent by their mouth and claws; but it is remarkable, that in his manuscript on this subject, now preserved in the British Museum, he expressly asserts that the female is furnished with two sacs or pouches on her belly, in which she carries her young while sucking. “ Fæmella ad

ventrem binos habet quasi sacculos, in quibus cattuli ubera sugientes hærent." Camell. Mss. Mus. Brit.

Linnæus, judging of this animal's place in systematic arrangement, from the figures and descriptions of authors, but not having had an opportunity of examining its generic characters himself, placed it in the genus Lemur, to which he supposed it most allied; but was careful, at the same time, to observe, that, as its teeth had not been examined, its real genus was, of course, not determinable. By the Count de Buffon it was, with unpardonable negligence, entirely omitted; nor was it till Dr. Pallas's description in the Petersburg Transactions appeared, that its genuine characters were ascertained.

In the publication entitled *Magazin Encyclopédique*, we meet with an account of the teeth of this animal, by Mons. Geoffroy, who appears to have examined with peculiar accuracy the specimens belonging to the Museum of the Prince of Orange.

Mr. Geoffroy observes, that in the form and disposition of the teeth it differs not only from the Lemures, but from all other quadrupeds. He is also of opinion, that the foremost of what Dr. Pallas considers as canine, should, in reality, be considered as cutting teeth; since they are inserted into the incisive or intermaxillary bone: all the teeth, taken together, are of so anomalous a cast as to make it difficult to determine the intention of Nature in their formation; but Mr.

Geoffroy is inclined to think them calculated for feeding on insects, though the animal is usually said to live on fruits.

With respect to other particulars of this animal, we are informed by Mr. Geoffroy that the coecum, in a specimen dissected by Mons. Cuivier, was extremely large and voluminous; whereas, in the Bat, to which the Colugo may be allowed to bear some affinity, that part is wanting. Dr. Pallas has observed, that the liver is divided into two lobes, of which the right is entire and broader than the left, which is by far the longest, extended downwards, and divided into three segments.

There are, according to Mons. Geoffroy, two varieties (perhaps sexual differences) of the Colugo, viz. one of the colour usually described, viz. cinereous, with transverse darker and lighter undulations; the other of a fine cinnamon or ferruginous colour, most vivid on the back, and paler beneath, and without any kind of variegation. There are also some trifling differences in the teeth of this reddish kind from those of the grey; but they are not such as to enable us to judge whether they are owing to age, or to a specific difference.

In the Leverian Museum is a fine specimen, in which the grey colour seems to predominate, owing to the very numerous whitish stripes across the back, as described by Camelli. This is the specimen figured in Mr. Pennant's *Quadrupeds*, and in the present work. Those figured in Seba



FLYING LEMUR.

*From the Leverian Museum.*





are probably young ones; they are described as of a ferruginous colour both above and below; yet in the coloured copies of that work, and particularly in the British Museum copy, once the property of Sir Hans Sloane, they are represented of a very deep or blackish cinereous above, and pale ferruginous beneath.

Lastly, In order that nothing might be wanting which might tend to convey a clear idea of an animal so curious, the excellent figure with which Dr. Pallas's account is accompanied in the Petersburg Transactions, is also added in the present publication.

## VESPERTILIO BAT.

*Generic Character.*

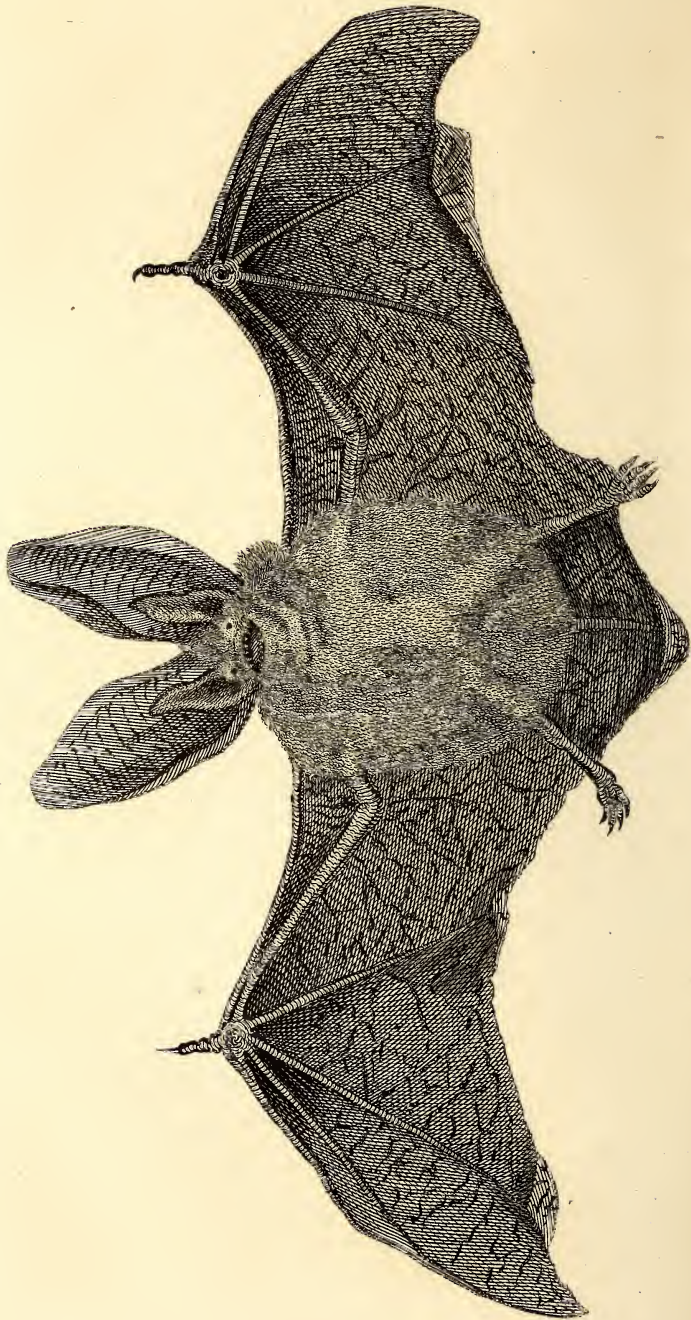
<i>Dentes</i> omnes erecti, acuminati, approximati.	<i>Teeth</i> erect, sharp-pointed, approximated.
<i>Manus</i> palmatæ volitantes membrana corpus cingente.	<i>Hands</i> palmated with a membrane furrounding the body and giving the animal the power of flight.

THE curious formation of these animals cannot be contemplated without admiration: the bones of the extremities being continued into long and thin processes, connected by a most delicately-formed membrane or skin, capable, from its thinness, of being contracted at pleasure into innumerable wrinkles, so as to lie in a small space when the animal is at rest, and to be stretched to a very wide extent for occasional flight.

Should a speculative philosopher, not aware of the anatomical impossibility of success, attempt, by means of light machinery, to exercise the power of flight, he could not hit on a more plausible idea than that of copying the structure described. Accordingly a celebrated author has most justly and judiciously represented a sage theorist busied in imitating, for this purpose, “the folding continuity of the wing of a Bat.”

The species of this extraordinary genus are numerous, and may be divided into the *tailed* and the *tailless* Bats.





*Thomson*

LONG EARED BAT.

## COMMON BAT.

*Vespertilio Murinus. V. caudatus, naso oreque simplici, auriculis capite minoribus. Lin. Syst. Nat. p. 47.*

Tailed Bat, with simple or inappendiculated nose, and ears smaller than the head.

*Vespertilio murini coloris, auriculis simplicibus. Briss. Quadr. p. 158. n. 1.*

*Chauve-souris. Buff. 8. p. 114. pl. 16.*

Short-eared English Bat. *Edwards, pl. 201. f. 2.*

Common Bat, *Pennant Quadr. 2. p. 319.*

THIS is about two inches and a half, if measured from the nose to the tip of the tail, and the extent of the wings, when fully expanded, is about nine inches. It is of a mouse-colour, tinged with reddish: the wings and ears black: these latter are small and rounded.

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LONG-EARED BAT.

*Vespertilio Auritus. V. caudatus, ore nasoque simplici, auriculis duplicatis capite majoribus. Lin. Syst. Nat. p. 47.*

Tailed Bat, with inappendiculated nose, and double ears larger than the head.

*Vespertilio murini coloris, auriculis duplicibus. Briss. Quadr. 160.*

*Vespertilio auriculis quaternis. Johnst. av. p. 34. t. 20.*

Long-eared English Bat. *Edwards, pl. 201. f. 3.*

Oreillar. *Buff. 8. p. 118. pl. 17. f. 1.*

Long-eared Bat. *Pennant Quadr. 2. p. 320.*

Great-eared Bat. *Speculum Linnæanum, pl. 7.*

THIS species, in its general appearance, is nearly similar to the former, though rather small-

er; and the fur has less of the reddish tinge; but what immediately distinguishes it as a species, is the very great size of the ears, which are more than an inch long and of a very considerable width: they are slightly rounded at the tips, and are furnished internally, as in most others of this genus, with a kind of secondary auricle or internal flap, so placed as to serve by way of a valve or guard to the auditory passage. Linnæus, even in the twelfth edition of the *Systema Naturæ*, seems to entertain a doubt whether this species be really distinct from the former, or merely a sexual difference.

This and the former are the two most common species in this country; and are those which we so often see fluttering about in the evenings of summer and autumn; frequently uttering a sharp, stridulous note or scream during their flight, and pursuing the various kinds of insects on which they feed; particularly moths. They are sometimes taken by throwing up the heads of burdock whitened with flour; which the Bats, either mistaking for some insect, or casually dashing against, are caught by the hooked prickles and brought to the ground.

The Bat is capable, like the Mouse, of being tamed to a certain degree; and we are assured by Mr. White, in his *Natural History of Selborne*, that he was much amused in the summer of the year 1766 with the sight of a tame Bat. “It would take flies out of a person’s hand. If you gave it any thing to eat, it brought its wings

round before the mouth, hovering, and hiding its head, in the manner of birds of prey when they feed. The adroitness it shewed in shearing off the wings of the flies, which were always rejected, was worthy of observation, and pleased me much. Insects seemed to be most acceptable, though it did not refuse raw flesh when offered; so that the notion that Bats go down chimnies and gnaw men's bacon, seems no improbable story. While I amused myself with this wonderful Quadruped, I saw it several times confute the vulgar opinion, that Bats, when down on a flat surface, cannot get on the wing again, by rising with great ease from the floor. It ran, I observed, with more dispatch than I was aware of, but in a most ridiculous and grotesque manner."—*White's Selb.*

Bats are commonly supposed to produce two young at a birth; which they suckle for a considerable time. When recently born they adhere most tenaciously to the breast of the parent, so as not to be removed without difficulty.

Bats lodge in great numbers in the cavities of old buildings, under the projections of walls, in the hollows of trees, in rocky places, &c. &c. During winter they lie torpid in these recesses, till the warmth of the vernal atmosphere invites them abroad to make their evening excursions. When taken torpid and brought into a warm situation, they awake from their slumber, and again expand their wings. During this state of torpidity the circulation of the blood is not to be

perceived in the smaller vessels; but when thus awakened by warmth it again becomes visible by the microscope. This was first observed by Leewenhoeck, who could perceive no appearance of circulation in such as were taken in their torpid state; but on bringing them to the fire, the circulation soon became very brisk.

Bats are said to drink on the wing, like swallows, by sipping the surface, as they play over pools and streams. They love to frequent waters, not only for the sake of drinking, but on account of the insects, which are found over them in the greatest plenty. "As I was going (says Mr. White), some years ago, pretty late, in a boat from Richmond to Sunbury, on a warm summer's evening, I think I saw myriads of Bats between the two places: the air swarmed with them all along the Thames, so that hundreds were in sight at a time."—*White's Selb.*

The general appearance of the Bat, together with its nocturnal flight, must be confessed to excite the idea of something hideous and dismal; and for this reason the ancients consecrated it to Proserpine, and supposed it to be one of the inhabitants of her dusky regions: and it cannot fail to occur to the recollection of every one, that painters, in their representations of fiends and demons, usually exhibit them with the leathern wings of the Bat. It is also equally evident, that the fabulous Harpies of the ancients must have originated from a similar source: the larger Bats of India and Africa, by a little poetical exaggera-



tion of their manners, answering extremely well to the general description of those monsters.

I know not whether it may be worth while to mention the celebrated experiments of Spallanzani, respecting a supposed additional sense or faculty in Bats, enabling them, when deprived of sight, to avoid any obstacles as readily as when they retained their power of vision. These experiments are cruel, and, perhaps, do not lead to any very important discoveries in the animal œconomy: nevertheless, that I may not seem entirely to neglect a phenomenon which has been thought worthy of attention by several eminent experimentalists, I shall here give a short abstract of the professor's observations.

Having observed that Bats would fly in the darkest chambers with precision, and not even touch the walls, he found them equally exact in their motions when the eyes were closely covered; and at length he destroyed the eyes, and covered the socket with leather; and even in this state the animal continued to fly with the same precision as before; avoiding the walls, and cautiously suspending its flight in seeking where to perch. It even flies out at a door without touching the architraves. The abbé repeated his experiments on several species of bats; and with the same success. These experiments were repeated by Vassalli at Turin, by Rossi at Pisa, Spadon at Bologna, and Jurin at Geneva. The professor's arguments for supposing that in these instances no other sense can supply the place of sight are these:

“ *Touch* cannot, in this case, supply the place of sight, because an animal covered with hair cannot be supposed to have that sense very delicate. In flying through the middle of a sewer which turned at right angles, the Bats regularly bent their flight at the curvature, though two feet distant from the walls. They discovered holes for their retreat; found a resting-place on the cornice; avoided the branches of trees suspended in a room; flew through threads hung perpendicularly from the ceiling, without touching, though they were scarcely at a greater distance than that of their extended wings; and when the threads were brought nearer they contracted their wings to pass through them. They equally avoided every obstacle, though the whole head was covered with a varnish made of sandarach dissolved in spirit of wine.

“ The *ear* could not have discovered a cornice or the threads: this sense, therefore, does not compensate the want of vision. Besides, Bats fly equally well when the ear is most carefully covered. The *smell* might possibly assist them; for when the nose was stopped, they breathed with difficulty, and soon fell. While they did fly, however, they avoided obstacles very well; and the smell could scarcely have assisted them in discovering the suspended threads. The *taste* must have been, in every respect, unequal to the task of supplying the place of sight.”

From Mr. Jurin's anatomical observations on these animals, it appears that a very large propor-

tion of nerves is expanded on the upper jaw, the muzzle, and the organ of hearing; and these appeared to him, in a great degree, to account for the extraordinary faculty above described.

Mr. Carlisle's observations on this subject seem to prove that the sense of hearing in the Bat is uncommonly delicate, and is one of the principal causes of the dexterity with which these animals, even when blinded, avoid objects which would impede their flight. This gentleman collected several specimens of the *Vespertilio auritus* or large-eared Bat, and observed, that when the external ears of the blinded ones were closed, they hit against the sides of the room, without being at all aware of their situation. They refused every species of food for four days, as did a larger number which were afterwards caught and preserved in a dark box for above a week. During the day time they were extremely desirous of retirement and darkness; and, while confined to the box, never moved or endeavoured to get out during the whole day, and, when spread on the carpet, they commonly rested some minutes, and then beginning to look about, crawled slowly to a dark corner or crevice. At sunset the scene was quite changed: every one then endeavoured to scratch its way out of the box; a continued chirping was kept up, and no sooner was the lid of their prison opened than each was active to escape, either flying away immediately, or running nimbly to a convenient place for taking wing. When these Bats were first collected, several of the females had

young ones clinging to their breasts in the act of sucking. One of them flew with perfect ease, though two little ones were thus attached to her, which weighed nearly as much as their parent. All the young were devoid of down, and of a black colour.

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NOCTULE BAT.

Vespertilio Noctula. *V. caudatus, naso oreque simplici, auriculis ovalibus operculatis; operculo exili.* *Lin. Syst. Nat. Gmel. p. 48.*

Tailed Bat, with nose and mouth simple; oval ears and very small valves.

Noctule. *Buff. 8. p. 128. pl. 18. f. 1.*

Great Bat. *Pennant Brit. Zool.*

THIS species is considerably larger than the former; its extended wings measuring from fourteen to fifteen inches: the length from nose to the tip of the tail about four inches and a half. The nose is slightly bilobated: the ears small and rounded: the body is fleshy and plump: the shoulders very thick and muscular; the fur very soft and glossy and of a bright chesnut-colour. This is an inhabitant of Britain and of France, but seems not to have been particularized as a distinct species, till described by M. Daubenton in Buffon's Natural History. It is said to be common in some parts of Russia, sheltering in caverns. It flies high in the air in search of food, and does not skim near the surface like the smaller Bats. It has been occasionally found in great quantities under the

eaves of old buildings, and has generally a strong and unpleasant smell.

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HORSE-SHOE BAT.

*Vespertilio Ferrum equinum. V. caudatus, naso ferro equino simili, auribus caput æquantibus non operculatis, cauda dimidia corporis longitudine. Lin. Syst. Nat. Gmel. p. 50.*

Bat with horse-shoe-shaped nose, valveless ears, and tail half the length of the body,

Fer à Cheval. *Buff. 8. p. 131, 132. pl. 17, 20.*

WITH a horse-shoe-shaped membrane at the tip of the nose: ears large, broad at the base, and sharp-pointed, inclining backward: no smaller or internal ear: colour of the upper part of the body deep cinereous; of the lower, whitish. There is said to be a greater and smaller variety: perhaps the male and female: the greater is above three inches and half long from the nose to the tip of the tail; the extent of wings above fourteen: this species is found in France, and, very rarely, in England: it is also said to be found about the Caspian Sea.

## SEROTINE BAT.

Vespertilio Serotinus. *V. caudatus flavescens, auriculis brevibus emarginatis.* *Lin. Syst. Nat. Gmel. p. 41.*

Tailed yellowish Bat, with short emarginated ears.

Serotine. *Buff. 8. p. 129. t. 18. f. 2.*

WITH a longish nose: ears short, but broad at the base: hair on the upper part of the body brown, mingled with ferruginous; the under part paler. Length from nose to rump two inches and a half: no tail. Native of France; and is also found in Russia.

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 PIPISTRELLE BAT.

Vespertilio Pipistrellus. *V. caudatus ex atrofuscus, fronte convexa, auriculis ovatis, emarginatis, capite vix longioribus.* *Lin. Syst. Nat. Gmel. p. 48.*

Tailed blackish-brown Bat, with convex front and ovate emarginated ears, scarce longer than the head.

Pipistrelle. *Buff. 8. p. 129. t. 19. f. 1.*

Pipistrelle. *Pennant Quadr. 2. p. 318.*

THIS is a very small species, and is found in France. The colour of the upper part of the body is yellowish-brown; the under part dusky. The lips yellow: the nose small; the upper lip swelling out a little on each side: the ears broad. The length from nose to rump scarce an inch and quarter: the extent of wings about six inches or rather more.

## BARBASTELLE BAT.

Vespertilio Barbastellus. *V. caudatus, buccis elatis pilosis, auriculis magnis inferius angulatis.* *Lin. Syst. Nat. Gmel. p. 48.*

Tailed Bat, with elevated hairy cheeks, and large ears angulated on the lower part.

Barbastelle. *Buff. 8. p. 130. pl. 19. f. 1.*

Barbastelle. *Pennant Quadr. 2. p. 319.*

THE length of the Barbastelle is about two inches from nose to tail: its extent about ten inches: the upper part of the body is of a dusky brown; the under part ash-coloured: the forehead sunk: the ears broad and long; the lower part of the inner sides touching each other, and thus concealing the face and head when viewed in front: the nose short: the cheeks full; the end of the nose flattened. It is found in France.

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 LASIOPTER BAT.

Vespertilio Lasiopterus. *V. caudatus, membrana pedes connectente latissima.* *Lin. Syst. Nat. Gmel. p. 50.*

Tailed Bat, with the membrane connecting the feet extremely broad, and covered on the upper part with hair.

V. Lasiopterus. *Schreb. Quadr. t. 57. B.*

WITH the forehead very prominent and rounded: nose short: the general colour ferruginous; the upper part of the wings of a paler cast; the ends and lower parts black: this is one of the larger species.

## ROUGH-TAILED BAT.

Vespertilio Lasiurus. *V. caudatus labiis tumidis, cauda lata.* Lin.  
*Syst. Nat. Gmel. p. 50.*

Tailed Bat, with tumid lips and broad hairy tail.

*V. lasiurus. Schreb. Quadr. t. 62. B.*

WITH upright ears and small: tail broad at base; terminating in a point thickly covered with hair: colour a reddish-brown. A small species. Native country unknown.

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MOLUCCA BAT.

Vespertilio Cephalotes. *V. caudatus, capite magno, labiis productis, naribus spiralibus, verrucis subocularibus, auriculis parvis non operculatis.* Lin. *Syst. Nat. Gmel. p. 50.*

Tailed yellowish-grey Bat, with large head, spiral nostrils, and small ears without valves.

*V. cephalotes. Pallas Spicil. Zool.*

THIS species was first described by Dr. Pallas, and is a native of the Molucca isles. The head is large; the nose thick: the ears small: the nostrils tubular, terminating outwards in the form of a screw: the upper lip is divided: the tongue covered with papillæ and minute spines: the claw or thumb joined to the wing by a membrane; and the first ray of the wing terminated by a claw: the end of the tail reaches beyond the membrane: the colour of the head and back is a greyish-ash: length from nose to rump three inches



and three quarters: extent of wings about fifteen. Mr. Pennant observes, that the specimen of this animal in the Leverian Museum is of a fine straw-colour: the belly dull white.

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STRIPED BAT.

Vespertilio Pictus. *V. caudatus, naso simplici, auriculis infundibuliformibus appendiculatis.* Lin. Syst. Nat. Gmel. p. 42.

Tailed Bat, with simple nose and funnel-shaped appendiculated ears.

Autre Chauve-Souris. Buff. 10. p. 92. pl. 20. f. 3.

THIS is a Ceylonese species, and is one of the smaller Bats, measuring from nose to the end of the tail two inches. Its colour above is brown; the wings striped with black, and sometimes with tawny and brown: it varies sometimes in the colour of the body, which is reddish brown, with the under parts whitish: the nose is small and short: the ears short, broad, and pointing forwards.

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NEW-YORK BAT.

Vespertilio Noveboracensis. *V. caudatus, cauda longa, naso brevi acuto, auribus brevibus rotundis.* Lin. Syst. Nat. p. Gmel. p. 50.

Long-tailed ferruginous Bat, with short sharp nose, short round ears, and a white spot at the base of each wing.

New-York Bat. Pennant Quadr. 2. p. 313.

LENGTH from nose to tail two inches and a half: tail one inch and eight tenths: extent of

wings ten inches and a half. The head is shaped like that of a mouse: top of the nose a little bifid: ears short, broad, and rounded: no cutting-teeth: two canine in each jaw: tail very long, inclosed in the membrane, which is of a conic shape: head, body, and whole upper side of the membrane which encloses the tail, covered with long, soft hair of a bright tawny-colour, lightest on the head and beginning of the back: the belly paler: at the base of each wing a white spot: the wings thin, naked, and dusky; and the bones of the hind legs very slender. This is a native of North America, and seems to have been first described by Mr. Pennant: it is also found in New Zealand.

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BEARDED BAT.

*Vespertilio Hispidus. V. caudatus pilosus, naribus canaliculatis, auriculis longis angustis. Lin. Syst. Nat. Gmel. p. 48.*

Tailed hairy Bat, with channeled nostrils and long narrow ears.

Bearded Bat. *Pennant Quadr. 2. p. 313.*

A SMALL species: colour above reddish-brown; beneath whitish, tinged with yellow: nostrils open for a great way up the nose: hair on the forehead and under the chin very long: ears long and narrow: tail included in a very veiny membrane.

## SLOUCH-EARED BAT.

Vespertilio Auripendulus. *V. caudatus naso obtuso, auribus magnis dependentibus acuminatis.*

Tailed Bat, with obtuse nose, and large pendent ears with pointed tips.

Slouch-eared Bat. *Pennant Quadr. 2. p. 313.*

WITH large pendulous ears, pointed at the ends: nose obtuse: tail long, included in a membrane, and terminated with a hook: colour above deep chesnut; lighter on the belly, and cinereous on the sides: length three inches and four lines: extent of wing fifteen inches. Native of Guiana.

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 SLENDER-TAILED BAT.

Vespertilio Lepturus. *V. caudatus, naribus tubulatis, auriculis longis, obtusis operculatis, membranæ utriusque pedes connectenti annexo interioris marsupio. Lin. Syst. Nat. Gmel. p. 50.*

Tailed Bat, with tubular nostrils, slender tail, and a purse-shaped cavity on the interior part of each of the wings.

Pouch Bat. *Pennant Quadr. 2. p. 312.*

Slender-tailed Bat. *Pennant Quadr. 2. p. 315.*

WITH the nose somewhat lengthened: the end thickest, and beset with fine whiskers: the chin divided by a furrow: ears long, and rounded at the ends: on each wing, near the second joint, is a small purse or pouch: the tail is only in part involved by the membrane; the end hanging out:

colour of the body cinereous-brown; the under parts paler: length an inch and half. Native of Surinam.

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SENEGAL BAT.

Vespertilio Nigrita. *V. caudatus ex flavescente fuscus, capitis parte anteriore, pedibus caudaque nigris.*

Tailed yellowish brown Bat, with the fore part of the head, the feet, and the tail black.

Senegal Bat. *Pennant Quadr. 2. p. 312.*

WITH a long head: nose a little pointed: ears short and pointed: head and body a tawny brown, mixed with ash-colour; under parts paler: the two last joints of the tail extending beyond the membrane: length from nose to rump above four inches: extent of wing twenty-one inches. Native of Senegal.

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BULL-DOG BAT.

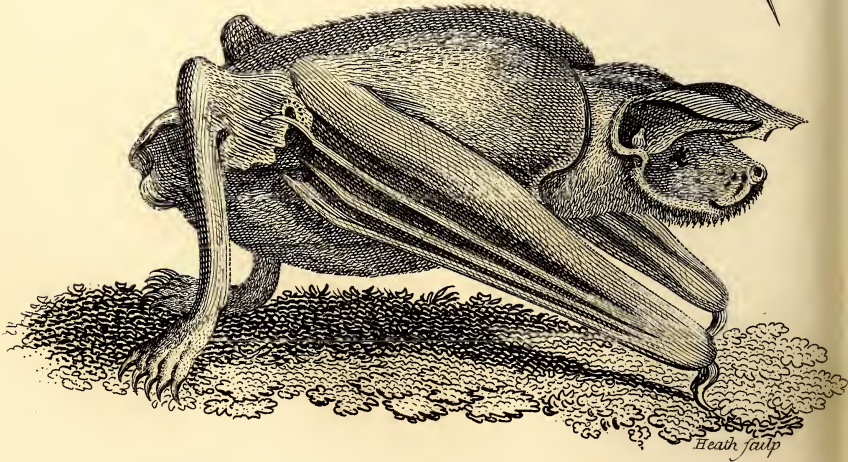
Vespertilio Molossus. *V. caudatus, cauda longa ultra membranam connectentem protensa, labio superiore pendulo. Lin. Syst. Nat. Gmel. p. 49.*

Bat, with pendulous upper lip, and long tail stretching beyond the connecting membrane.

Bull-dog Bat. *Pennant Quadr. 2. p. 311.*

IN this species the nose is thick: the ears broad and round; the edges touching each other in front: the lips are pendulous: the upper part





PERUVIAN BAT.

of the body of a deep ash-colour; the lower paler: the tail long; the five last joints entirely disengaged from the membrane. Length above two inches; extent nine and a half. Inhabits the West Indies.

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 PERUVIAN BAT.

Vespertilio Leporinus. *V. caudatus, labio superiore bifido.* Lin. *Syst. Nat. Gmel. p. 47.*

Tailed Bat, with the upper lip bifid.

Noctilio Americanus. *N. labio superiore varicoso.* Lin. *Syst. Nat. ed. 12. p. 88.*

Vespertilio cato similis Americanus. *Seb. mus. 1. p. 89. t. 55. f. 1.*

Peruvian Bat. *Pennant Quadr.*

LINNÆUS, as Mr. Pennant well observes, carried away by the love of system; placed this species, in the twelfth edition of the *Systema Naturæ*, under a distinct genus, by the name of *Noctilio*; stationing it at a great distance from the rest of the Bats, in the order *Glires*, next to the Squirrels. This he did merely on account of its having only two cutting-teeth in each jaw. But succeeding observations have conspired to prove that the number and disposition of the teeth differs greatly in the different species of the Bats; so that if a too rigid regard were paid to this particular, several distinct genera might be instituted instead of one; but the general characters of the Bats are so striking as to render this perfectly unnecessary.

The Peruvian Bat has a head something like a Pug-Dog: the ears large and strait; sharp at the ends, and pointing forwards: two canine-teeth, and two small cutting-teeth between in each jaw: tail enclosed in the membrane, which joins to each hind leg, and is also supported by two long cartilaginous ligaments involved in the membrane: colour of the fur iron-grey: body equal in size to a middling rat: extent of wing two feet five inches. Mr. Pennant observes, that Mr. Schreber's figure of this species is erroneously coloured; being represented of a straw-colour. It is a native of Peru. An extraordinary conformation, according to Seba, takes place in the legs of this Bat; the tibia and fibula being placed separately from each other, and each invested by its own distinct and hairy skin. These, however, seem to be nothing more than the two cartilaginous ligaments mentioned by Mr. Pennant.

The remaining species (except the last) are distinguished by having no tails.

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CORDATED BAT.

Vespertilio Spasma. *V. ecaudatus naso foliato obcordato.* Lin.  
*Syst. Nat. p. 47.*

Tailless Bat, with a doubly heart-shaped leaf-like membrane on the nose.

Glis volans ternatanus. *Seb. 1. t. 56. f. 1.*

Cordated Bat. *Pennant Quadr. 2. p. 310.*

WITH very broad and long ears: at the end of the nose an upright heart-shaped membrane: (in





Meachy sculp

CORPATELLA



Seba's figure the membrane is doubly heart-shaped, or with two cordated divisions one above the other). The colour of the whole animal is a pale reddish brown: the hind legs are connected by a web: the body is thick and plump: the extent of wing, according to Seba's figure, seems to be about fifteen inches: length of body from nose to rump near four inches. Native of Ceylon and the Molucca islands.

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LEAF BAT.

Vespertilio Soricinus. *V. ecaudatus, rostro producto, naso foliato cordato.* *Lin. Syst. Nat. Gmel. p. 47.*

Tailless Bat, with lengthened snout furnished with a heart-shaped leaf-like membrane.

Leaf Bat. *Pennant Quadr. 2. p. 309.*

Bat from Jamaica. *Edwards, pl. 201. f. 1.*

WITH small rounded ears: membrane on the nose in form of an ovate, pointed leaf: a web between the hind legs: fur of a mouse-colour, tinged with red: size of a common Bat.

## JAVELIN BAT.

Vespertilio Hastatus. *V. ecaudatus, naso foliato trifolii figuram æmulante.* *Lin. Syst. Nat. Gmel. p. 47.*

Tailless Bat, with a trefoil-shaped upright membrane on the nose.

La Chauve-Souris à fer de lance. *Buff. 13. p. 226. pl. 33. and suppl. 7. p. 292. pl. 74.*

Javelin Bat. *Pennant Quadr. 2. p. 309.*

Vespertilio perspicillatus? *Lin. Syst. Nat. p. 47.*

WITH large pointed ears: an erect membrane at the tip of the nose in the form of an ancient javelin, having on each side two upright processes: fur cinereous: size of a common Bat. Inhabits the warmer parts of America. This is by Mr. Pennant made synonymous with the *V. perspicillatus* of Linnæus, which is, however, considered as a distinct species in the Gmelinian edition of the *Systema Naturæ*.

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 GREAT SEROTINE BAT.

Vespertilio Nasutus. *V. ecaudatus ferrugineus, naso longo apice declivi, auribus longis erectis rotundatis.*

Tailless ferruginous Bat, with long nose sloping at the tip, and long upright rounded ears.

La Grande Serotine de Guianne. *Buff. suppl. 7. p. 289. pl. 73.*

Great Serotine. *Pennant Quadr. 2. p. 318.*

WITH a very long, strait, and strong nose, sloping down at the end: ears long, erect, dilated towards the bottom, rounded at the end: colour of





SPECTRE BAT.

the upper parts a reddish chesnut: sides of a clear yellow; remainder of a dirty white: length five inches and eight lines: extent of wings two feet.

This species is described in the supplemental volume of the Count de Buffon's Natural History. It is a native of Guiana, where it is said to assemble in meadows and other open places in vast numbers; flying in company with Goatsuckers, and both together in such numbers as to darken the air.

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SPECTRE BAT.

Vespertilio Spectrum. *V. ecaudatus, naso infundibuliformi lanceolato.*  
*Lin. Syst. Nat. p. 46.*

Tailless Bat, with funnel-shaped sharp-pointed membrane on the nose.

Canis volans maxima aurita ex nova Hispania. *Seb. mus. 1. p. 92.*  
*t. 58. f. 1.*

Spectre Bat. *Pennant Quadr. 2. p. 308.*

THIS is a large species, and is a native of South America, where it is chiefly seen on palm-trees. The extent of wings is about two feet two inches or more; and from the nose to the rump seven inches and a half. It has a long nose; large teeth; long, broad, and upright ears: and at the end of the nose is an upright, long, conical membrane, bending at the end. Hair on the body cinereous, and pretty long; wings full of ramified fibres: the membrane extends from hind

leg to hind leg: there is no tail; but three tendons run from the rump to the edge of the membrane.

Mr. Buffon supposes this to be the Vampire; but if the accounts of that animal's extraordinary faculty may be depended upon, we are still uncertain as to the species; Piso and others, who give the relation, omitting the particular description of the animal; and, indeed, it is most probable that the faculty which gave rise to the name is by no means confined to a single species, but may be practised by several of the larger Bats in warm climates.

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VAMPIRE BAT.

Vespertilio Vampyrus. *V. ecaudatus naso simplici, membrana inter femora divisa.* *Lin. Syst. Nat. p. 46.*

Tailless Bat with the nose simple, or without any appendage, and the flying membrane divided between the thighs.

Vespertilio ingens. *Clus. exot. 94.*

Vespertilio volitans. *Bont. Jav. 68. t. 69.*

Canis volans ternatanus orientalis. *Seb. 1. t. 57.*

Roussette. *Buff. 10. p. 55. t. 14. and 17.*

Ternate Bat. *Pennant Quadr. 2. p. 304.*

Vampire Bat. *Spec. Lin. t. 8.*

OF this tremendous animal there are some varieties in point of size and colour; or perhaps they may really be distinct races or species, though nearly allied. The largest, or the Great Ternate



VAMPIRE BAT.





Bat, is, in general, about a foot long, with an extent of wings about four feet; but sometimes it is found far larger, and it has been said that specimens have been seen of six feet in extent. The general colour of the body is a deep reddish brown; brighter on the upper part of the neck and shoulders, as well as on the under parts of the body. The nose is sharp and black: the teeth large and sharp: there are four cutting-teeth both above and below; and the canine-teeth are large and strong: the tongue is pointed, and terminated by sharp prickles: the ears are naked, blackish, and large, and are of a pointed form. The wings are black, or of the colour of those of the common Bat. The membrane is divided behind, quite to the rump; there being no tail: the single claw on the wings is large and strong; and those on the feet extremely so, as well as much curved.

This is the Bat to which Linnæus applied the title of Vampyre, on the supposition of its being the species of which so many extraordinary accounts have been given relative to its power of sucking the blood both of men and cattle. This it is supposed to perform by inserting its aculeated tongue into the vein of a sleeping person, in so peculiar a manner as not to excite pain; fanning, at the same time, the air with its wings, by which means the sleep is rendered still more profound. This is what appears at first so extraordinary as to justify a degree of scepticism as to the fact: it is, however, so solemnly related, and

seemingly so well authenticated, as almost to enforce belief. Mr. Condamine assures us, that the large Bats have, in certain parts of America, destroyed, by this means, all the great cattle introduced there by the missionaries. It is affirmed by Bontius, as well as Nieuhoff, that the Bats of Java attack those who lie with their feet uncovered, whenever they can gain access: and Gumilla, who mentions a greater and lesser kind, found on the banks of the Oronoque, declares them to be equally greedy after human blood: persons thus attacked have, in consequence, been near passing from a sound sleep into eternity. It is, therefore, very unsafe to sleep with open windows, or in the open air, in those regions.

P. Martyr, who wrote soon after the conquest of South America, says, that in the Isthmus of Darien, there are Bats which suck the blood of men and cattle, when asleep, to such a degree as to awaken, and even kill them.

Lastly, Though it seems to have escaped the attention of modern naturalists, the self-same faculty has been, time out of mind, attributed to the common European Bats, which are said to bite sleeping persons, and to suck the blood with the greatest avidity. This is mentioned by Aldrovandus, who seems to relate it as a generally-received opinion; observing, at the same time, that their attacks are infinitely inferior to the dangerous ones of the large exotic Bats in India and America.

It remains to explain the reason of the term Vampyre, by which the above large species has been distinguished.

A Vampyre is an imaginary monster, supposed to suck the blood of sleeping persons. It also alludes to one of the most absurd superstitions that ever entered into the human mind. About the year 1732 an idea arose among the vulgar in some parts of Poland and Hungary, that certain bodies when interred, became possessed of the power of absorbing blood from those who were so unfortunate as to pass over or stand near their graves, it was, therefore, supposed necessary to disinter such bodies and wound them with a sword, by which means this pernicious power was supposed to be put a stop to, and the blood they had unjustly gained was evacuated. Astonishing as this folly may appear, it is yet more astonishing that a great many treatises were written on the subject, and that some considerable time elapsed before the superstition was completely destroyed.

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PIT-NOSE BAT.

*Vespertilio Speoris.* Schreb. *suppl.*

*Vespertilio caudatus, fossula frontali transversa.*

Tailed Bat, with a transverse frontal cavity.

THIS species, from Mr. Schreber's representation, appears to be about the size of the common Bat, which it also resembles in its general aspect,

but differs in its colour, being of a pale yellowish ash-brown. Its principal character is a remarkable transverse concavity situated on the forehead, lined with a naked blackish skin : the nostrils are seated in a similar concavity at the tip of the nose. It is a native of India. The circumstance of the frontal cavity is not absolutely peculiar to this animal, having been observed, though in a much less conspicuous degree, in another species : the use of this peculiar formation seems as yet unknown.





THREE-TOED SLOTH.



## ORDER

## B R U T A.

## BRADYPUS. SLOTH.

*Generic Character.*

<i>Dentes Primores</i> nulli utrinque.	<i>Cutting-teeth</i> , none in either jaw.
<i>Laniarii</i> obtusi, solitarii, molaribus longiores, occurrentes.	<i>Canine-teeth</i> obtuse, single, longer than the grinders, placed opposite.
<i>Molares</i> utrinque quinque, obtusi.	<i>Grinders</i> , five on each side, obtuse.
<i>Corpus</i> pilis tectum.	<i>Fore Legs</i> much longer than the hind: <i>Claws</i> very long.

## THREE-TOED SLOTH.

*Bradypus Tridactylus*. *B. pedibus tridactylis, cauda brevi*. *Lin. Syst. Nat.* p. 50.

Sloth with three-toed feet and short tail.

*Ignavus*. *Clus. exot.* p. 372. *fig.* p. 373.

*Ai. Buff.* 13. p. 34. *pl.* 5, 6.

Three-toed Sloth. *Pennant Quadr.* 2. p. 240.

*Museum Leverianum*, vol. 2. p. 13. *pl.* 3.

**B**EFORE the discovery of the western hemisphere, the Tortoise seems to have been considered as the established representative of tardi-

ness: but those who attended to the natural history of the new world, were astonished to find in a genuine viviparous quadruped a much more singular example of languid motion and habitual inactivity. The early accounts, however, of this extraordinary animal seem to have been given with some degree of exaggeration; and it was pretended that the creature could scarce advance a stone's throw in the space of fifteen days: that it required eight or nine minutes in order to move one foot to the distance of three inches: other accounts say, that the Sloth can scarcely move fifty paces in a day: all, however, who have had opportunities of examining this species in its native climates, agree in representing it as the most torpid of quadrupeds; that it seems to move with the utmost difficulty, and it never exerts its progressive powers except when urged by the necessity of obtaining food; when it climbs, with great labour, to the tops of trees; and having gained this situation, continues to reside there till it has despoiled the tree of its foliage and fruit, when it is obliged to descend and to seek a fresh situation: it is added, that in order to save itself the slow and laborious descent which it would otherwise be obliged to make, it suffers itself to fall to the ground; its tough skin and thick coarse hair sufficiently securing it from any unpleasant effect in its fall. The general appearance of the Sloth is extremely uncouth; the body is of a thick shape; the fore legs short; the hinder ones far longer: the feet, on all the legs, are very small, but

are armed each with three most excessively strong and large claws, of a slightly curved form, and sharp-pointed. The head is small; the face short, with a rounded or blunt snout, which is naked and of a blackish-colour: the eyes are small, black, and round: the ears rather small, flat, rounded, lying close to the head, and not unlike those of Monkeys. The hair on the top of the head is so disposed as to project somewhat over the forehead and sides of the face, giving a very peculiar and grotesque physiognomy to the animal. The general colour of the hair on all parts is a greyish brown, and the hair is extremely coarse, moderately long, and very thickly covers the body, more especially about the back and thighs. A remarkable character as to colour in this species, is a wide patch or space on the upper part of the back, of a bright ferruginous or rather pale orange-colour, spotted on each side with black, and marked down the middle with a very conspicuous black stripe; wide at its origin, and gradually tapering to its extremity: it reaches more than half way down the back, and terminates in a sort of trifold mark; so that the whole gives a highly singular appearance to the animal, when viewed from behind. This particularity is remarkably distinct in the very fine specimen preserved in the Leve-rian Museum. So far as I am able to determine, from the inspection of numerous specimens, it is scarce, if at all, visible in the young animals, which are merely of an uniform greyish brown. The tail is nearly imperceptible, being so ex-

tremely short as to be concealed from view by the fur.

The Count de Buffon, in one of those flights of paradoxical eloquence, in which he sometimes indulged, is not willing to allow this creature any share in contributing to the general beauty in the scale of animated nature; but considers it as an ill-constructed mass of deformity, created only for misery; which he thinks is the less to be wondered at, when, perhaps, the major part of mankind experience a similar fate.

“ From a defect in their conformation, the misery of these animals is not more conspicuous than their slowness. They have no cutting-teeth; the eyes are obscured with hair; the chaps are heavy and thick; the hair is flat, and resembles withered herbs; the thighs are ill jointed to the haunches; the legs are too short, ill turned, and terminated still worse; their feet have no soles, and no toes which move separately, but only two or three claws disproportionately long, and bended downwards, which move together, and are more hurtful to their walking, than advantageous in assisting them to climb. Slowness, habitual pain, and stupidity, are the results of this strange and bungled conformation. The sloths have no weapons either offensive or defensive. They are furnished with no means of safety; for they can neither fly nor dig the earth. Confined to a small space, or to the tree under which they are brought forth, they are prisoners in the midst of space, and cannot move the length of one fathom in an hour. They

drag themselves up a tree with much labour and pain: their cry and interrupted accents they dare only utter during the night. All these circumstances announce the misery of the Sloths, and recal to our minds those defective monsters, those imperfect sketches of nature, which, being hardly endowed with the faculty of existence, could not subsist for any length of time, and have accordingly been struck out of the list of beings. If the regions inhabited by the Sloths were not desert, but had been long occupied by men and the larger animals, these species would never have descended to our times; but would have been annihilated, as in some future period will be the case. We formerly remarked, that every thing that possibly could be did really exist: of which the Sloths are a striking example. They constitute the last term of existence in the order of animals endowed with flesh and blood. One other defect added to the number would have totally prevented their existence. To regard those bungled sketches as beings equally perfect with others, to call in the aid of final causes to account for such disproportioned productions, and to make Nature as brilliant in these as in her most beautiful animals, is to view her through a narrow tube, and to substitute our own fancies for her intentions. Why should not some animals be created for misery, since in the human species the greatest number of individuals are devoted to pain from the moment of their existence? Evil, it is true, proceeds more from ourselves than from Nature. For a single

person who is unhappy because born feeble or deformed, there are millions rendered miserable by the oppression of their superiors. The animals, in general, are more happy, because the species have nothing to fear from individuals: to them there is but one source of evil; to man there are two. Moral evil, of which he himself is the fountain, has accumulated into an immense ocean, which covers and afflicts the whole surface of the earth. Physical evil, on the contrary, is restrained within very narrow bounds: it seldom appears alone; for it is always accompanied with an equal, if not a superior, good. Can happiness be denied to animals, when they enjoy freedom; have the faculty of procuring subsistence with ease; and possess more health, and organs capable of affording greater pleasure than those of the human species? Now the generality of animals are most liberally endowed with all these sources of enjoyment. The degraded species of Sloths are perhaps the only creatures to whom Nature has been unkind, and who exhibit to us the picture of innate misery."

With submission, however, to this lively naturalist, I should not hesitate to believe that the Sloth, notwithstanding this appearance of wretchedness and deformity, is as well-fashioned for its proper modes and habits of life, and feels as much happiness in its solitary and obscure retreats, as the rest of the animal world of greater locomotive powers and superior external elegance.

The sloth feeds entirely on vegetables, and par-

ticularly on leaves and fruit. Its voice is said to be so inconceivably singular, and of such a mournful melancholy, attended, at the same time, with such a peculiarity of aspect, as at once to excite a mixture of pity and disgust; and, it is added, that the animal makes use of this natural yell as its best mode of defence; since other creatures are frightened away by the uncommon sound. This, however, is far from being its only refuge; for so great is the degree of muscular strength which it possesses, that it is capable of seizing a dog with its claws, and holding it, in spite of all its efforts to escape, till it perishes with hunger; the Sloth itself being so well calculated for supporting abstinence, that the celebrated Kircher assures us of its power in this respect having been exemplified by the very singular experiment of suffering one, which had fastened itself to a pole, to remain in that situation, without any sustenance, upwards of forty days. This extraordinary animal is an inhabitant of the hotter parts of South America. It is nearly as large as a middle-sized dog.

## VAR. ?

The stiff and awkward representation of this animal in Edwards's gleanings of Natural History, was executed from a dried specimen, which had been set up in that position. Edwards observes, that all the figures which he had seen were erroneous, in representing the hair as growing to the very roots of the claws; whereas, in the abovementioned

tioned specimen, it did not reach more than to within an inch and half of the claws; a bare space intervening. The consideration of this circumstance has induced some observers, with unnecessary scrupulosity, to consider it as a distinct species; but it is probable that this bare appearance round the feet was merely owing to some accidental circumstance. It is certain that the hair in uninjured specimens of the three-toed Sloth grows absolutely to the very roots of the claws; if, however, the above animal was in a truly natural state, it would justify a separation from the rest, as a variety rather than as a distinct species.

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TWO-TOED SLOTH.

Bradypus Didactylus. *B. manibus didactylis, cauda nulla.* Lin.  
*Syst. Nat. p. 51.*

Sloth with two toes on the fore feet, and without a tail.

Bradypus pedibus anticis didactylis, posticis tridactylis. *Bris.*  
*Quadr. p. 22.*

Unau. *Buff. 13. p. 34. pl. 1.*

Two-toed Sloth. *Museum Leverianum, vol. 1. p. 79. No. 2. pl. 7.*  
*Pennant Quadr. 2. p. 242.*

THIS species is also a native of South America; and it is asserted, on good authority, that it is likewise found in some parts of India, as well as in the island of Ceylon. In its general appearance, as well as in size, it bears a considerable resemblance to the former species: it is, however, somewhat more slender in its shape; covered with smoother or less coarse and harsh hair; and is of a





TWO TOED SLOTH.

*Hatch sculp*



more uniform or less varied tinge; having no marks or shades of black and ferruginous as in the former; and, in particular, is strikingly distinguished, as a species, by having only two claws on the fore feet: it is also a much more active animal, and, even when imported into Europe, has been known, according to the testimony of the Count de Buffon, to ascend and descend from a tall tree several times in a day; whereas the three-toed Sloth with difficulty performs that operation in a whole day; and can scarce crawl some hundred yards in the space of many hours. The disposition of the hair on the head of the two-toed Sloth differs also from that of the former animal, and is directed immediately backwards, without being in the least reversed round the front as in that species. A very fine specimen may be seen in the Leverian Museum; and a young one not much larger than a Squirrel, and of a very light or whitish colour is in the British Museum, as well as a more advanced specimen, preserved in spirits.

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In Mr. Carlisle's description of the remarkable disposition of the trunks of the subclavian and iliac arteries in the Lemur tardigradus, he very properly observed, that "it would be of some importance in physiology to ascertain whether the other slow-moving Quadrupeds have any peculiar arrangement of the arteries of their limbs," the single fact above recorded being hardly suffi-

cient for the foundation of any theoretical explanation of the slow movement of the muscles. The British Museum afforded an opportunity of investigating this particular in other slow-moving Quàdrupeds, and Mr. Carlisle, at my request, examined the arteries of the *Bradypus tridactylus*, of all Quàdrupeds yet known the slowest in its movements; when the same remarkable distribution of vessels presented itself, both in the upper and lower limbs; and the small divisions of the artery, forming the surrounding cylinder, were still more numerous than in the Slow Lemur, viz. not less than 60 or 65, and in the lower limbs, at least, as many: these small cylinders were also connected by several lateral or anastomosing branches. We then opened a specimen of the *Bradypus didactylus*, an animal far less slow in its motions than the *tridactylus*. In this species a distribution indistinctly approaching to that above described was discovered, but with much fewer divisions, and more approaching to the usual distribution in other Quàdrupeds. Lastly, A Lemur Loris, or Slender-limbed Lemur, was examined; when it appeared that the trunk of the artery, both in the upper and lower limbs, was surrounded by only four or five smaller cylinders, instead of the numerous ones so remarkable in the Slow Lemur, &c.





*Heath sculp*

URSINE SLOTH

## URSINE SLOTH.

Bradypus Ursinus. *B. niger hirsutissimus, naso elongato nudo, pedibus pentadactylis.*

Black Sloth, with very long shaggy hair, lengthened snout, and five-toed feet.

Ursine Bradypus, or Ursiform Sloth. *Naturalist's Miscellany, vol. 1. pl. 58.*

Ursiform Sloth. *Pennant Quadr. 2. p. 243. pl. 92.*

Petre Bear. *Catton's Figures of Animals.*

THIS, which is by far the largest species of Sloth, is a native of India, and has been but lately introduced to the knowledge of European naturalists. It was brought from the neighbourhood of Patna in Bengal. This animal has, at first sight, so much of the general aspect of a bear, that it has actually been considered as such by some observers; but it is no otherwise related to the Bear than by its size and habit, or mere exterior outline. This species I first examined with accuracy in company with Mr. Pennant, and with him collated its characters with those of the Sloths. I described it in the second volume of the Naturalist's Miscellany; and Mr. Pennant afterwards introduced it into the last edition of his History of Quadrupeds. An excellent figure had some time before been published by an ingenious artist, which has been repeated both in the Naturalist's Miscellany, and in the History of Quadrupeds; and is, on account of its superior accuracy, again copied in the present work. It expresses, in a peculiarly striking and just manner,

the appearance of the animal; and is, besides, accompanied with a view of the open mouth, &c. to shew the situation and form of the teeth. I must here observe, that the figure represented in the *Journal de Physique*, though a good general representation of the animal in its walking posture, is erroneous in the article of the claws; those on the hind feet being shewn equally large with those of the fore feet; which is by no means the case.

The Ursine Sloth is about the size of a Bear, and is covered all over, except on the face, or rather the snout, which is bare and whitish, with long, shaggy, black hair; which on the neck and back is much longer than elsewhere. On the fore part of the body the hair points forwards; on the hinder part backwards. The eyes are very small: the ears rather small, and partly hid in the long hair of the head. It is totally destitute of incisores or front-teeth: in each jaw are two canine-teeth of a moderate size: those in the upper jaw are situated at the distance of two inches from each other; those in the lower jaw are placed somewhat less remote. The molares or grinders in the upper jaw are placed three on each side; of which the two most remote are double or lobed: the remaining one simple. In the lower jaw there are on each side six grinders, of which the most remote or backward is simple; the two next double, and the three remaining ones simple. The tongue is smooth, and has nothing remarkable in its appearance. The nose or snout is of a



somewhat elongated form; it also appears as if furnished with a sort of transverse joint, or internal cartilage, which admits of a peculiar kind of motion in this part. The claws on the fore feet are five in number, and are excessively strong; moderately crooked, and sharp-pointed: those on the hind feet are shorter, and of a rounder shape. The tail is very short, and inconspicuous. The animal, at the time this description was drawn up, was thought to be somewhat more than four years old. When first taken it is said to have been about the size of a raccoon, and to have sometimes barked in the manner of a dog. Its voice, however, when examined as above, was a sort of short, abrupt roar, which it uttered when much disturbed or irritated. It was a gentle and good-natured animal; it fed chiefly on vegetable substances and milk; was fond of apples, and did not willingly eat animal food, except of a very tender nature, as marrow, which it readily sucked from a bone presented to it. It was also delighted with honey, sugar, and other sweets. Its motions were not, as in the two former species, slow and languid, but moderately lively; and it appeared to have a habit of turning itself round and round every now and then, as if for amusement, in the manner of a dog when lying down to sleep. It was said to have a propensity to burrowing under the ground; and it was added, that it had been dug out of its subterraneous retreat by those who first discovered it.

## MEGATHERIUM.

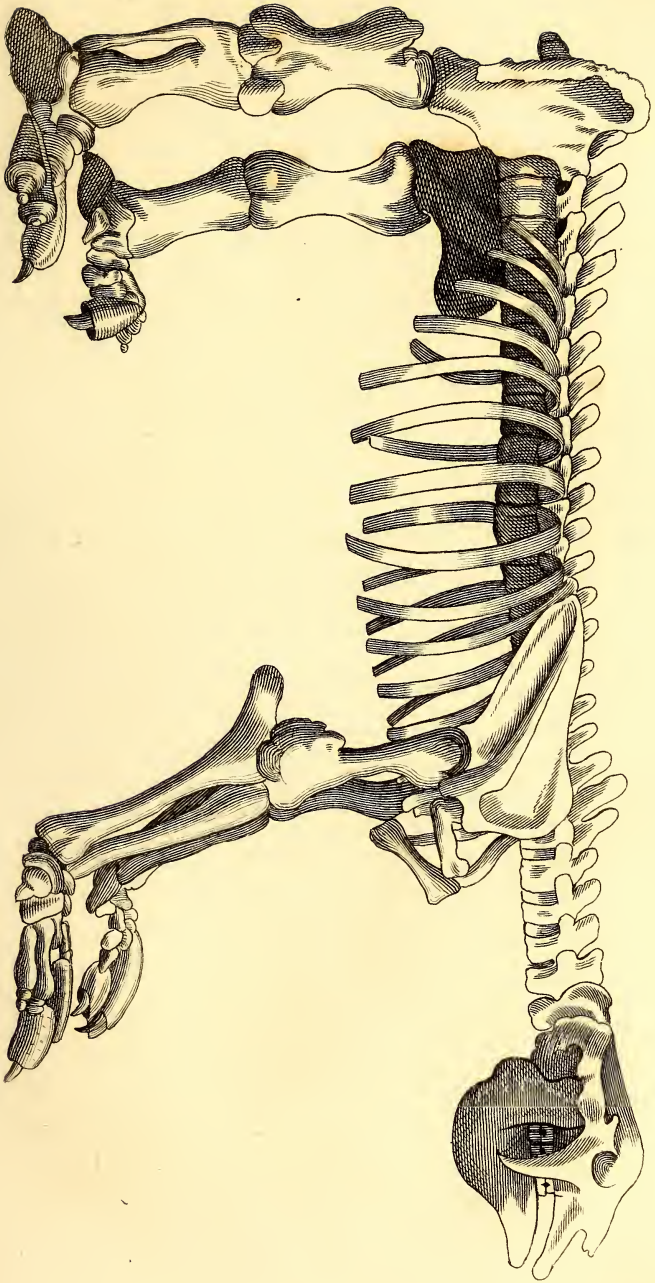
IN compliance with the opinion of Mons. Cuvier, who appears to have accurately examined it, we shall here introduce this curious animal; hitherto unknown, except from its skeleton, discovered in a fossil state, some years ago, in South America; and which, Mr. Cuvier thinks, approaches much nearer to the genus *Bradypus* or Sloth than to any other yet known.

Mr. Cuvier's account is as follows:

“ This skeleton is fossil. It was found a hundred feet beneath the surface of a sandy soil, in the vicinity of the river of La Plata. It only wants the tail, and some pair-bones, which have been imitated in wood; and the skeleton is now mounted at Madrid.

“ This skeleton is twelve feet (French) long, by six feet in height. The spine is composed of seven cervical, sixteen dorsal, and four lumbar vertebræ: it has consequently sixteen ribs. The sacrum is short: the ossa ilia very broad; and their plane being almost perpendicular to the spine, they form a very open pelvis. There is no pubis or ischium; at least they are wanting in this skeleton, and there is no mark of their having existed when the animal was alive.

“ The thigh bones are excessively thick, and the leg bones still more so in proportion. The entire sole of the foot bore on the ground in walk-



MEGATHERIUM AMERICANUM.



ing. The shoulder-blade is much broader than long. The clavicles are perfect, and the two bones of the fore-arm are distinct and moveable upon each other. The fore limbs are longer than the hind. To judge by the form of the last phalanxes, there must have been very large pointed claws, enclosed at their origin in a long sheath. There appears to have been only three of these claws on the fore feet, and a single one on the hind. The other toes seem to have been deprived of them, and, perhaps, entirely concealed beneath the skin.

“The head is the greatest singularity of this skeleton. The occiput is elongated and flattened, but it is pretty convex above the eyes. The two jaws form a considerable projection, but without teeth, there being only four on each side above and below, all grinders, with a flat crown, and grooved across. The breadth of the branches of the lower jaw, and the great apophysis placed on the base of the zygomatic arch, deserve particular notice.

“This quadruped, in its characters, taken together, differs from all known animals; and each of its bones, considered apart, also differs from the corresponding bones of all known animals. This results from a detailed comparison of the skeleton with that of other animals, and will readily appear to those who are conversant in such researches; for none of the animals which approach it in bulk have either pointed claws, or similarly formed head, shoulder-blades, clavicles, pelvis, or limbs.

“ As to its place in the system of quadrupeds, it is perfectly marked by the sole inspection of the ordinary indicative characters, that is, the claws and teeth. These shew that it must be classed in the family of unguiculated quadrupeds destitute of cutting-teeth; and, in fact, it has striking relations with these animals in all parts of its body. This family is composed of the *Sloth* (*Bradypus*), *Armadillo* (*Dasybus*), *Pangolin* (*Manis*), *Ant-Eater* (*Myrmecophaga*), and *Orycteropus* or *Cape Ant-Eater*.

“ The great thickness of the branches of the lower jaw, surpassing even that of the elephant, seems to prove that the vast animal was not content with leaves, but, like the elephant and rhinoceros, broke and ground the branches themselves; its close and flat-crowned teeth appearing very proper for that purpose. The position of the bones of the nose, having some analogy with that of the elephant and tapir, would induce a suspicion that our animal wore a trunk, but it must have been very short, since the length of the head and neck together equals that of the fore legs. However this be, we find in the absence of canine-teeth, and the shortness of the muzzle, sufficient characters to constitute a new genus in the family of the *edentated*, which ought to be placed between the *Sloth* and the *Armadillo*; since to the shape of the head of the former, it joins the teeth of the latter. It would be necessary to know particulars of which a skeleton cannot inform us, such as the nature of the teguments, the form of the tongue,

the position of the mammæ, &c. in order to determine to which of these it approached the most. In the mean time, I thought I might give it the generic name of MEGATHERIUM, and the trivial one of *Americanum*.

“ It adds to the numerous facts which apprise us that the animals of the ancient world were all different from those we now see on the earth; for it is scarcely probable that, if this animal still existed, so remarkable a species could have hitherto escaped the researches of naturalists. It is also a new and very strong proof of the invariable laws of the subordination of characters, and the justness of the consequences thence deduced for the classification of organized bodies; and under both these views it is one of the most valuable discoveries which have for a long time been made in Natural History.”

## MYRMECOPHAGA. ANT-EATER.

*Generic Character.**Dentes* nulli.*Lingua* teres, extensilis.*Os* angustatum in rostrum.*Corpus* pilis tectum.*Teeth*, none.*Tongue* cylindric, extensile.*Mouth* lengthened into a somewhat tubular form.*Body* covered with hair.

**T**HE animals of this genus live entirely on insects, more particularly on the various kinds of Ants; in order to obtain which, they extend their tongue, which is of a very great length, and of a roundish or worm-like form, into the nests of those insects, and when, by means of the viscid moisture with which it is covered, a sufficient number are secured, they retract it suddenly into the mouth and swallow them. A part of the generic character of the Myrmecophaga is the total want of teeth, in which particularity it resembles no other animals except those of the genus *Manis*, in which the same circumstance takes place. There are, however, in the Ant-Eaters according to the observations of Mons. Broussonet, certain bones or processes not unlike teeth, situated deep







GREAT ANTEATER.

at the entrance of the gullet or œsophagus; or rather, according to the celebrated Camper, at the lower end of the jaws. The species of Ant-Eaters are not numerous.

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GREAT ANT-EATER.

Myrmecophaga Jubata. *M. palmis tetradactylis, plantis pentadactylis cauda jubata.* *Lin. Syst. Nat. p. 52.*

Grey-brown Ant-Eater, with four toes on the fore feet, five on the hind, long snout, and very long bushy tail.

Tamanoir. *Buff. 10. p. 141. pl. 29.*

Great Ant-Eater. *Pennant Quadr. 2. p. 256.*

*Museum Leverianum, vol. 1. p. 99. pl. 12.*

THIS is by far the largest of the Ant-Eaters, being upwards of seven feet in length, from the tip of the nose to the end of the tail; but if measured to the origin of the tail, it is no more than about five feet and a half. It is an animal of an uncouth appearance: the head is small: the snout very long: the eyes small: the ears short and round: the shoulders thick and muscular, from whence the body tapers towards the tail; but the thighs are thick and stout: the colour of the animal is a deep grey, with a very broad band of black running from the neck downwards on each side the body, growing gradually narrower as it passes down; this black band is accompanied on the upper part by a streak of white; the fore legs are of a lighter cast than the hinder; and have a patch or spot of black in front no-

much above the foot: the tail is black, extremely long and bushy: the hair on the whole body, but especially on the tail, is very harsh and coarse: there are four toes on the fore feet, and five on the hind; the two middle claws of the fore feet are extremely large and strong; which render this creature, though destitute of teeth, a very formidable adversary; since it has been known to destroy animals of much greater apparent strength than itself; fixing its claws upon them, and exerting such powerful strength as to kill them by continued laceration and pressure. It is a native of Brasil and Guiana: it is chiefly a nocturnal animal, and is said to sleep during the greatest part of the day in retired places. Its pace is somewhat slow, and its manners dull and heavy. It is said to swim with ease; at which time it flings its tail over its back. A living specimen was some years ago brought into Spain, and kept in the Royal Menagerie at Madrid: in this state of confinement it would readily eat raw meat cut small, and was said to swallow four or five pounds in a day. Its length was six feet, from the nose to the end of the tail, and its height was two feet. The specimen in the Leverian Museum is of superior size, and is commemorated by Mr. Pennant, in his History of Quadrupeds, as being the largest specimen he ever heard of. Its dimensions, however, do not seem to exceed those of a skin preserved in the British Museum, and which once belonged to that of the Royal Society. A beautiful figure of the Leverian speci-





MIDDLE ANT-EATER.

men is given in No. 2. of the Museum Leverianum, and is copied in the present work.

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 MIDDLE ANT-EATER.

*Myrmecophaga Tetradactyla. M. palmis tetradactylis, plantis pentadactylis, cauda calva. Lin. Syst. Nat. p. 52.*

Ant-eater, with four toes on the fore feet, five on the hind, and half-naked prehensile tail.

THIS species, which is far inferior in size to the former, has a long slender nose, bending down a little: the mouth is black: the eyes small: the ears small and upright. The general colour of the animal is a palish yellow-brown; the hair somewhat shining, and of a hard nature: on each side of the neck is an oblique black or dusky band, crossing the shoulders, and passing toward the lower part of the back: the tail, which is covered with longer hair than the back, is thickish at the base, but tapers towards the end where it is nearly bare, having the same prehensile power as in some of the Monkeys. On each of the fore feet are four toes, armed with strong claws, the middle ones extremely so. On the hind feet are five claws, small in comparison with the former. The length of the animal from nose to tail is one foot seven inches: of the tail ten inches. It inhabits the same parts of South America with the Great Ant-Eater, and its manners are similar. It also climbs trees, and occasionally clings by its tail to the branches.

## THREE-TOED ANT-EATER.

Myrmecophaga Tridactyla. *M. palmis tridactylis, palmis tetradactylis, cauda villosa.* *Lin. Syst. Nat. p. 51.*

Ant-Eater, with three toes on the fore feet, four on the hind and villose tail.

Tamandua-guacu. *Seb. 1. p. 60. t. 37. and p. 65. t. 40. f. 1.*

THIS, which must be considered as an obscure species, seems to have been first mentioned by Seba, and from him adopted by Linnæus and Brisson. The figures, however, which Seba gives, represent equally well the Four-toed Ant-Eater or Myrmecophaga tetradactyla of Linnæus, from which they only appear to differ in having pendulous ears, and three toes instead of four on the fore feet. It, therefore, seems highly probable that this supposed species may be rather a variety of the *M. tetradactyla* than truly distinct. Linnæus, in his slight description, mentions a lateral black band, and adds, that the tail is broad and villose, and that the animal carries it over its back and covers itself with it: he also says that the back has a longitudinal mane\*. It is a native, according to Linnæus, of India.

In the Leverian Museum are two specimens of the *M. tetradactyla*, which in general appearance agree with the abovementioned figures of Seba, except having the head rather smaller in proportion, as well as the ears: yet there can be little doubt of their being in reality the same species.

\* Neither this nor the black band are mentioned by Seba.





STRIPPED ANT-EATER.

Beach sculp.

PLATE I. THE STRIPPED ANT-EATER. FROM THE



The Three-toed Ant-Eater of Seba may, therefore, be a mere variety of the Four-toed or Tetradactyla, and perhaps neither the black lateral band, nor the pendulous ears, ought to be considered as constituting a permanent or specific character. It is remarkable that Mr. Pennant, in his History of Quadrupeds, makes no mention of the *M. tridactyla*.

For the satisfaction of the reader, Seba's figure of this supposed species is represented in the present work, and those who are conversant in natural History will readily perceive that it can scarce be allowed to differ from the *Myrmecophaga tetradactyla*. On the other hand, I ought not to omit an observation of Mr. Vosmaer, who received from the Cape of Good Hope a specimen preserved in spirits of wine, and which he supposed to be a new-born animal, though as large as a young pig. He affirms that Seba's figures are very good; that they represent a perfectly distinct species, viz. that of which he received the young; but that the fore feet are furnished with four claws. Thus, in reality, the Seban animal, though erroneously mentioned as having only three toes on the fore feet, may still be, in all other respects, a very exact representation of a species not yet perfectly described; while the Linnæan *tridactyla* must continue unknown, unless he really meant the animal of Seba.

## LITTLE ANT-EATER.

Myrmecophaga Didactyla. *M. palmis didactylis, plantis tetradactylis cauda prehensili.*

Ant-Eater, with two toes on the fore feet, four on the hind, and prehensile tail.

*M. palmis didactylis, plantis tetradactylis, cauda villosa.* *Lin. Syst. Nat. p. 51.*

Tamandua seu Coati Americana alba. *Seb. 1. p. 60. t. 37. f. 3.*

Little Ant-Eater. *Edw. pl. 220.*

Fourmiller. *Buff. 10. p. 144. pl. 30.*

THIS is an animal of great elegance. It is not superior in size to a squirrel; measuring little more than seven inches from the nose to the tail, which is longer than the body and head: the head is small; the snout sharpened and slightly bent downwards: the legs are short; the fore feet have only two claws on each, the exterior one much larger and stronger than the interior: on each of the hind feet are four claws of moderate size: the ears are very small and hid in the fur: the eyes are also small. The whole animal is covered with a beautiful soft, and somewhat crisped or curled, fur, of a pale yellow-colour, or rather yellow-brown: the tail, which is very thick at the beginning or base, gradually tapers to the tip; and the lower surface, for about the space of four inches from the tip, is bare, the tail in this species being prehensile, and the animal commonly residing on trees, and preying on ants, by means of its long tongue, in the manner of other species. It is a native of Guiana. This species has been most elegantly figured both by Seba and Edwards; but the figure



LITTLE ANT-EATER,

*Half the Natural Size.*









in the Natural History of the Count de Buffon is, by some mismanagement, so conducted as to give a very erroneous idea both of the habit of the animal and the structure of the feet. The representation in the present work is from a beautiful specimen in the Leverian Museum.

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CAPE ANT-EATER.

*Myrmecophaga Capensis. M. palmis tetradactylis, rostro longo, auriculis magnis pendulis, cauda corpore brevior ad apicem attenuata. Lin. Syst. Nat. Gmel. p. 53.*

Ant-Eater, with four toes on the fore feet, long snout, large pendent ears, tail shorter than the body, and attenuated towards the tip.

Cochon de Terre. *Buff. suppl. 6. p. 230. pl. 31.*

Cape Ant-eater. *Pennant Quadr. 2. p. 261.*

THE Count de Buffon, having formerly asserted that none of the South American animals were found in the continent of Africa, and that none of the African ones were to be found in South America, thinks proper, in his supplemental volume, to maintain his former dogma, and is not willing to consider this species as a genuine Ant-Eater, though it possesses the usual character, viz. mouth without teeth; of a long form; and a long retractile tongue.

The Cape Ant-Eater is a large animal, measuring about three feet and a half from the tip of the nose to the beginning of the tail; and the tail measures one foot nine inches. The general

colour of the animal is grey, or like that of a Rabbit, but deeper; and tinged with reddish on the sides and belly: the legs are blackish; the head is of a conic shape; the nose long, and somewhat abruptly blunt at the end like that of a hog: the tongue is very long, flat, and slender: the ears about six inches long; upright (in the dried specimen), and extremely thin: they are also thinly scattered over with fine hairs: the hair on the head and upper parts is short, and lies close or smooth as if glued to the skin; it is longest and loosest on the sides and legs: the tail is thick at the base, and gradually tapers to a point. The fore feet have four toes; the hind ones, five; and the claws on all the feet are very strong. This species inhabits the neighbourhood of the Cape of Good Hope, where it lives under ground, and is called by the name of the Ground Hog. It feeds principally on ants. It is said to be often hunted out of its retreats by the Hottentots, who consider it as a good food. The description of this animal is given by Mr. Allamand, from a dried skin sent from the Cape; and he observes, that it is doubtful whether the ears in the living animal are erect or pendent: in a foetus described by Dr. Pallas\*, they were pendent.

The animal mentioned by Kolbe, in his account of the Cape of Good Hope, seems extremely allied to this, except that it is expressly said to have pendent ears. It is said by Kolbe to be of the weight

\* Pallas Miscell. Zool. 64.





ACULEATED ANTEATER.

of an hundred pounds, and to have a long head and tongue: if it fastens its fore feet into the ground, the strongest man cannot pull it away: it has four claws on the fore feet; feeds on ants, and burrows under ground, coming out chiefly by night to feed.

Some have been inclined to form a distinct genus from this species, under the title of *Orycteropus*; but this seems perfectly unnecessary, it being a genuine *Myrmecophaga*.

It is possible that the disputed figures in Seba, mentioned under the article *Myrmecophaga tri-dactyla*, may belong to this species.

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ACULEATED ANT-EATER.

*Myrmecophaga Aculeata. M. aculeata, cauda brevissima. Vivarium Naturæ, tab. 109.*

Spiny Ant-Eater, with very short tail.

Porcupine Ant-Eater. *Naturalist's Miscellany, pl. 109.*

Aculeated Ant-Eater. *Pennant Quadr. 2. p. 262.*

THE Aculeated Ant-Eater is one of those curious animals which have been lately discovered in the vast island, or rather continent, of Australasia or New Holland; and is a striking instance of that beautiful gradation, so frequently observed in the animal kingdom, by which creatures of one tribe or genus approach to those of a very different one. It forms a connecting link between the very distant Linnæan genera of *Hystrix* (Porcupine) and *Myrmecophaga* (Ant-Eater), having

the external coating and general appearance of the one, with the mouth and peculiar generic characters of the other. This animal, so far as may be judged from the specimens hitherto imported, is about a foot in length. The whole upper parts of the body and tail are thickly coated with strong and very sharp spines, of a considerable length, and perfectly resembling those of a Porcupine, except that they are thicker in proportion to their length; and that, instead of being encircled or annulated with several alternate rings of black and white, as in that animal, they are mostly of a yellowish white with black tips; the colour running down to some little distance on the quill, and being separated from the white part by a circle of dull orange: others have but a very slight appearance of black towards the tips. The head, legs, and whole under parts of the body, are of a deep brown, or sable, and are thickly coated with strong, close-set, bristly hair. The tail is extremely short, slightly flattened at the tip, and coated on the upper part of the base with spines, at least equal in length to those of the back, and pointing perpendicularly upwards. The snout is long and tubular, and perfectly resembles in structure that of the *M. jubata*, or Great Ant-Eater; having only a very small rictus or opening at the tip, from whence is protruded a long lumbriciform tongue, as in other Ant-Eaters. The nostrils are small, and seated at the extremity of the snout. The eyes are very small and black, with a pale blue iris. The legs are very short and

thick; and are each furnished with five rounded, broad toes: on the fore feet are five very strong, long, and blunt claws, of a black colour: on the hind feet are only four claws; the thumb, which is broader than the rest of the toes, being destitute of a claw: the first claw on the hind feet is extremely long, somewhat curved, and sharp-pointed; the next rather shorter, but of similar appearance; the two remaining ones far shorter, very slightly curved, and not sharp-pointed. In its mode of life this animal resembles the rest of the Ant-Eaters, being generally found in the midst of some large ant-hill: it burrows with great strength and celerity under ground, when disturbed; its feet and legs being most excessively strong, and short, and wonderfully adapted to this purpose. It will even burrow under a pretty strong pavement, removing the stones with its claws; or under the bottom of a wall. During these exertions its body is stretched or lengthened to an uncommon degree, and appears very different from the short or plump aspect which it bears in its undisturbed state.

It cannot escape the observation of every scientific naturalist, that, in consequence of the discovery of this curious animal, the Linnæan character of *Myrecophaga* is, in part, rendered inapplicable. Since, therefore, the genera of *Manis* and *Myrmecophaga* differ only in the external covering, the former being coated with scales, and the latter with hair, it would, perhaps, be not improper to conjoin the two genera, to add this as a new spe-

cies, and to give as part of the generic character *Corpus pilis, squamis, vel aculeis tectum*. Or it might even constitute a new genus, which would differ from those of *Manis* and *Myrmecophaga*, in having the body covered with spines.

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STRIPED ANT-EATER.

*Myrmecophaga Striata*. *M. flavescens, fusco transversim fasciata, maxilla superiore longiore.*

Yellowish Ant-Eater, with transverse dusky bands, and the upper jaw longer than the lower.

Le Tamandua. *Buff. suppl. 3. p. 381. pl. 56.*

Striped Ant-Eater. *Pennant Quadr. 2. p. 259.*

THIS is figured in the 3d vol. of the supplement to the Count de Buffon's Quadrupeds; and appears to be clearly a distinct species from any of the former. The nose is taper; the upper mandible extending very far beyond the lower: the eyes extremely small: the ears round and short: the tail covered with long hairs, so as to have a slightly bushy appearance: on the fore feet are five toes. The body and tail are of a yellowish-brown or tawny-colour; with the under parts white: the body is marked with broad, distant, blackish, transverse stripes, and the tail is annulated with similar ones. The length of the specimen, from nose to tail, was thirteen French inches; of the tail seven inches and a half. It is a native of Guiana.



## MANIS.

*Generic Character.**Dentis* nulli.*Lingua* teres, extensilis.*Os* angustatum in rostrum.*Corpus* squamis tectum.*Teeth*, none.*Tongue* cylindric and extensile.*Mouth* narrowed into a snout.*Body* covered with scales.

THE genus *Manis* presents an appearance not less extraordinary than that of *Dasytus* or *Armadillo*; being covered on every part, except on the belly, with extremely strong and large horny scales, constituting a suit of armour still more powerful than in the following genus, and capable of defending the animals, when rolled up, from the assaults of the most ferocious enemies. This external covering, together with the uncommon length of body and tail, gives an aspect so much resembling that of a Lizard, that these creatures are commonly known by the title of Scaly Lizards, though no otherwise allied to the Lizard tribe than in their unusual covering: they may be allowed, however, in a general view of the animal kingdom, to form a kind of shade or link of approximation between the proper viviparous quadrupeds and the Lizards.

They are animals of a harmless nature, and feed in the same manner as the Ant-Eaters, by thrusting out their very long tongue into the nests of ants and other insects, and swallowing their prey by suddenly retracting it, having no teeth, and differing from the Ant-Eaters in scarce any other circumstance but that of their scaly integument. They are found in India and the Indian islands.

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LONG-TAILED MANIS.

*Manis pedibus tetradactylis, cauda longissima.*

Manis with four-toed feet and very long tail.

Manis Tetradactyla. *M. pedibus tetradactylis.* *Lin. Syst. Nat.*  
p. 53.

Lacerta indica guanæ congener. *Aldr. ovip. dig.* 668.

Scaly Lizard. *Grew's Rarities,* p. 46.

Le Phatagin. *Buff.* 10. p. 180. pl. 34.

Four-toed Manis. *Naturalists' Miscellany,* pl. 36.

Long-tailed Manis. *Pennant Quadr.* 2. p. 252.

THIS animal, known in India by the name of the Phatagen, is of a very long and slender form: the head is small; the snout narrow: the whole body, except beneath, covered with broad, but sharp-pointed scales, which are striated throughout their whole length: the tail is more than twice the length of the body, and tapers gradually to the tip. The legs are very short; scaled like the body, and on each of the feet are four claws, of which those on the fore feet are stronger than



LONG-TAILED MANIS .

*Hook. Gulp*







SHORT-TAILED MANIS .

*Steen Junq*

those of the hind. The colour of the whole animal is an uniform deep brown, with a cast of yellowish, and with a glossy or polished surface. The *Manis tetradactyla* grows to the length of five feet, measuring from the tip of the nose to the extremity of the tail.

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SHORT-TAILED MANIS.

*Manis pedibus pentadactylis, cauda corporis longitudine.*

Manis with five-toed feet, and tail the length of the body.

Manis Pentadactyla. *M. pedibus pentadactylis.* *Lin. Syst. Nat.*  
p. 52.

*Lacertus indicus squamosus.* *Bont. Fav. p. 60.*

Pangolin. *Buff. 10. pl. 34.*

Five-toed Manis. *Naturalists' Miscellany, pl. 11.*

Short-tailed Manis. *Pennant Quadr. p. 253.*

THIS species differs from the former, in being of a much thicker and shorter form: the tail, in particular, differs greatly in proportion from that of the preceding, being not so long as the body; very thick at the base, and from thence gradually tapering, but terminating very obtusely. The head is small as in the former; the ears small and rounded: the feet furnished with five toes each, of which those on the fore feet are extremely strong, except the exterior one, which is much smaller than the rest. The whole animal is covered with most extremely thick, strong, and large scales, which in the full-grown speci-

mens are perfectly smooth, but in those which are smaller are slightly striated about half way from the base. Sometimes a few bristles appear between the scales, but in others this is not observable. The scales differ in shape from those of the preceding, being much wider and larger in proportion to the body and tail. The colour of the whole animal is a very pale yellow-brown, and the surface is glossy, as in the former species. In India it is called the Pangoelling. In the neighbourhood of Bengal it is named Vajracite, or the Thunderbolt Reptile, from the excessive hardness of the scales, which are said to be capable even of striking fire like a flint. It is found in different parts of India, and perhaps also in Guinea; this is on the authority of *Des Marchois*, who says it is called *Quogelo* by the negroes; that it grows to the length of eight feet, of which the tail is four; that it lives in woods and marshy places, and feeds on ants, by laying its long tongue across their paths. It is said to walk slowly; but, when pursued, rolls itself up, and is then so securely armed that even a leopard attacks it in vain. It is also said sometimes to destroy the elephant, by twisting itself round the trunk, and thus compressing that tender and sensible organ with its hard scales. We are told in the *Asiatic Researches*, that the Malabar name of this animal is Alungu; and that the natives of Bahar call it Bajar-cit, or the Stone vermin; and in the stomach of the one examined and described



in the above work was found about a teacupful of small stones, which it is supposed to have swallowed for the purpose of facilitating digestion. It was only thirty-four inches long from the nose to the end of the tail; and a young one was found in it.

The figure given in the Asiatic Researches is considered as a variety, differing a little in the proportion of some of its measurements from that described by the Count de Buffon, &c. In reality, it should seem to be the variety slightly described and figured in the Philosophical Transactions; and which Mr. Pennant has introduced into the last edition of his History of Quadrupeds as a distinct species, under the title of the *Broad-tailed Manis*. This we shall, in compliance with that excellent zoologist, describe in a separate article, though we think it may be doubted whether it should be really considered as a distinct species. Specimens of the *Manis pentadactyla* have sometimes been seen of the length of six feet from the nose to the tip of the tail.

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BROAD-TAILED MANIS.

*Manis cauda latissima.*

Manis with extremely broad tail.

Broad-tailed Manis. *Pennant Quadr.* 2. p. 254.

New Manis. *Phil. Trans.* 60. p. 36. pl. 11.

THIS animal is figured in the 60th volume of the Philosophical Transactions: it was killed in

the house of a merchant at Tranquebar, having been discovered in the cavity of a wall. When pursued, it rolled itself up in such a manner as to leave only the back and tail visible. It was with great difficulty destroyed. It had five toes on the fore feet, and four on the hind: the scales were of the shape of a muscle; the belly quite smooth; the exterior scales ended in a sharp point, somewhat incurvated: the tail was very broad, decreasing to a point: the whole length of the animal was a German ell and five eighths: the tail half an ell and a span broad in the broadest part.

Of animals inhabiting regions so remote, it is impossible to obtain more than a partial intelligence as to the exact distinction of species, sex, and variety: we must, therefore, be content to remain in doubt whether the above-described animal, as well that mentioned in the Asiatic Researches, should be considered as distinct from the species already known or not.

In reality, however, these differences do not seem sufficient to constitute a specific distinction; and are, probably, owing to the differences of age and sex. In the British Museum are specimens of different sizes, which shew these gradations. In one the scales, all over the animal, are so regularly and completely truncated at the extremity, as to exhibit the appearance of so many hexagons. In another they are remarkably broad and rounded; and, in a third, which is a very

large specimen, they are less obtuse at the tips, and somewhat irregularly terminated, as if notched, or worn through age. The proportional breadth of the tail also varies somewhat in these specimens, and seems greatest in those which are least advanced in age.

## DASYPUS. ARMADILLO.

*Generic Character.*

<i>Dentes</i> molares plures, absque primoribus, absque laniariis.		<i>Grinders</i> several, without either cutting or canine teeth.
<i>Corpus</i> cataphractum testa ossea zonis intersecta.		<i>Body</i> coated with a shelly armour, divided into zones.

THE Armadillos are natives of South America, and are readily distinguished from all other Quadrupeds by the singular covering with which Nature has ornamented them; and which forms a complete suit of armour, divided into bands or shelly zones, in such a manner as to accommodate itself to the various postures of the body; and exhibiting a most beautiful example of deviation from the general structure and appearance in quadrupeds. The Armadillos are innoxious animals, and inhabit subterraneous retreats or burrows, which they readily excavate by means of their large and strong claws. They wander about chiefly by night, and devour various roots and grain; and are, therefore, considered as injurious to plantations. They also occasionally prey on the smaller animals of different kinds; worms, insects,

&c. In a state of captivity they readily eat animal food, and that in considerable quantity.

They are themselves considered as excellent food, and are, therefore, dug out of their subterraneous cavities, and sold for the table. When old, however, their flesh acquires a strong musky scent, and becomes unfit for use. When attacked, the Armadillos roll themselves up into the form of a ball, and thus become, in a degree, invulnerable. Nothing can exceed the curious mechanism by which this is performed; nor is it possible to view without admiration the appearance of the animal thus coiled up, and secured from common contingencies.

Armadillos are said to drink frequently, and they often grow extremely fat. They are very prolific animals, and are said to breed three or four times a year, and to bring several young at a birth. The species are determined by the number of shelly zones on the body. In enumerating these, however, it is remarkable that most authors vary; and the exact discrimination of all the species seems yet a desideratum in natural history. This, perhaps, arises partly from the inattention of draughtsmen and engravers, when representing the animals, and partly from different authors counting differently the bands on some of the species; which are so placed as to make it difficult, in some instances, to distinguish the ultimate or bounding zones of the body, from the scaly divisions on the fore and hind parts of the animal, and which, like the bands, are disposed into a

kind of zones, though less strongly marked. Some species, however, are so clearly defined by this mode of distinction, as to be at all times readily ascertained.

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THREE-BANDED ARMADILLO.

*Dasypus Tricinctus. D. tegmine tripartito, pedibus pentadactylis.*  
*Lin. Syst. Nat. p. 53.*

Armadillo, with the armour divided into three bands, and five-toed feet.

Tatou, v. Armadillo. *Red. exper. 91. t. 92.*

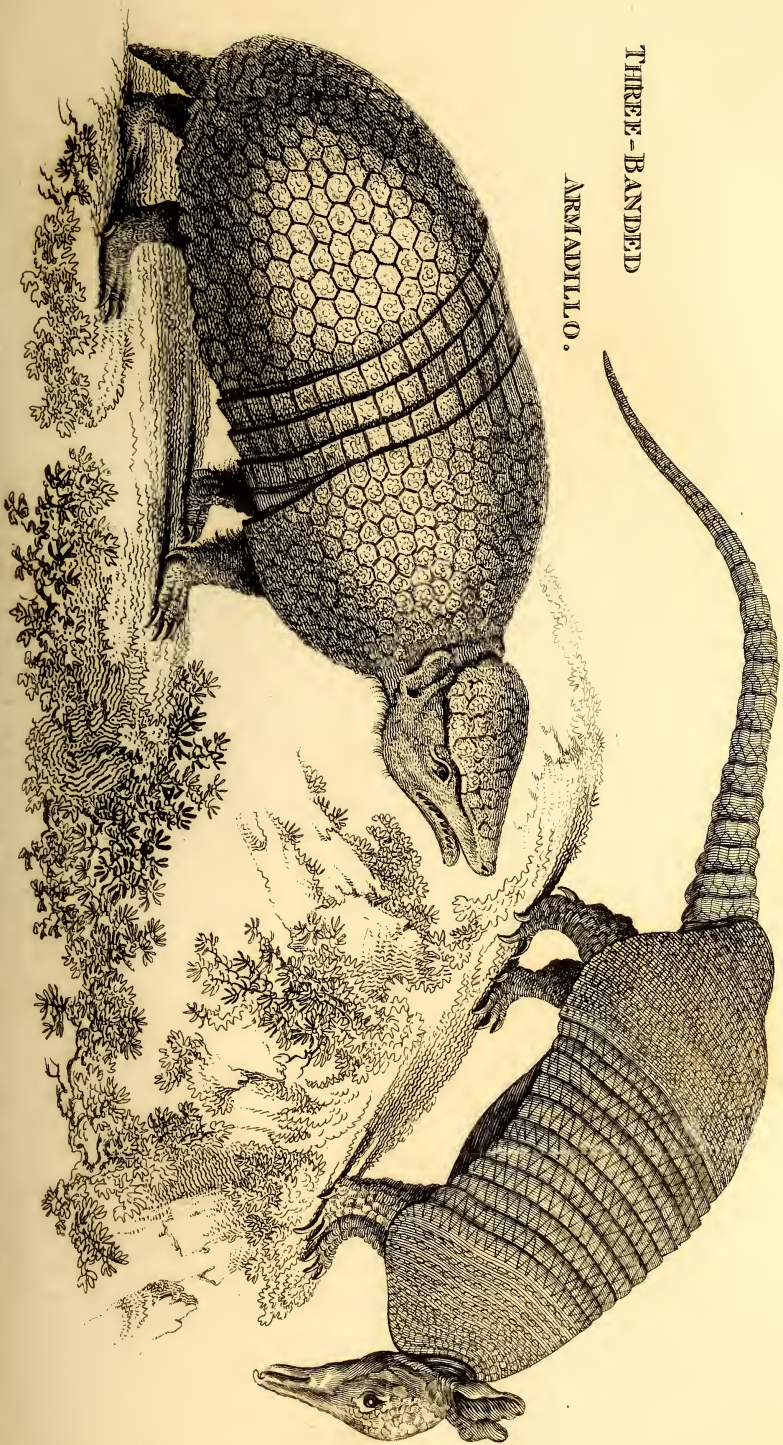
Tatu apara. *Marcgr. bras. 232.*

Tatu, &c. *Seb. 1. p. 62. t. 38. f. 2, 3.*

THIS may be considered, perhaps, as the most elegant of the whole genus; the pattern of the armour being peculiarly neat, and well defined; and the colour of the animal more pleasing than in most other species, viz. a clear yellowish-white. The head, shoulders, and hind part of the body, are coated with regular hexagonal divisions, curiously studded or tuberculated on the surface; and the zones of the body are extremely distinct, and only three in number: they are divided or marked into numerous transverse segments or squares; the tail is very thick and short. The legs are covered with hexagonal divisions or segments similar to those on the shoulder, but smaller: the ears are rather large, and the claws smaller than in most other species: it is a native of Brazil.

NINE-BANDED ARMADILLO.

THREE-BANDED  
ARMADILLO.



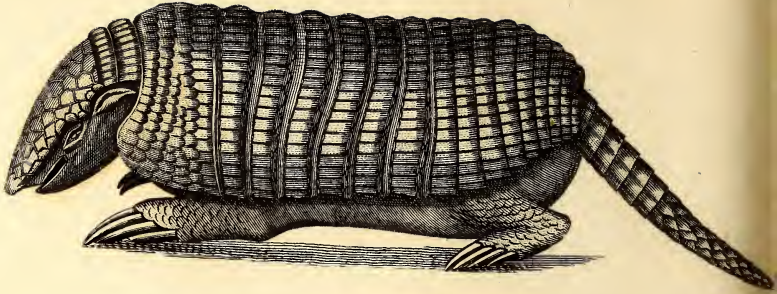
Wm. Woodcut, London, Published by Colnaghi, Fleet Street.

1844

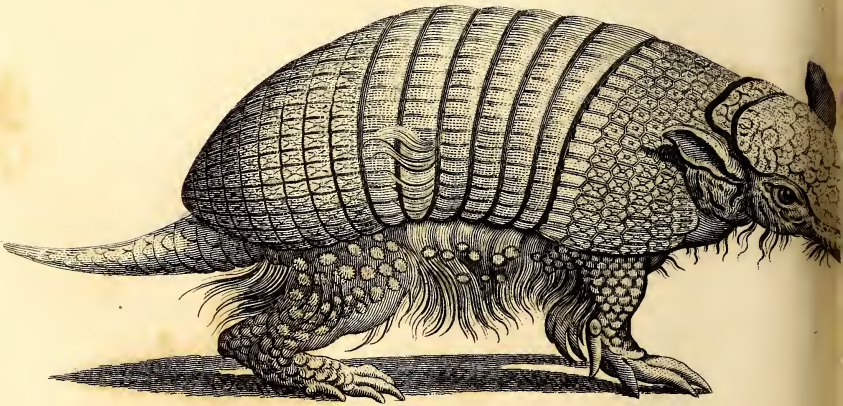








EIGHTEEN-BANDED-ARMADILLO.



SIX-BANDED ARMADILLO.

## SIX-BANDED ARMADILLO.

*Dasypus Sexcinctus*. *D. cingulis senis, pedibus pentadactylis*. *Lin.*

*Syst. Nat. p. 54.*

Armadillo with six bands, and five-toed feet.

Tatu, v. Armadillo prima Marcgravii. *Raj. Quadr. 233.*

Armadillo. *Olear. mus. p. 7. t. 6. f. 4.*

Encoubert, ou Tatou à six bandes. *Buff. 10. p. 209. pl. 42. and suppl. 3. p. 285. pl. 57.*

THIS is also a species of great elegance; and, in its general appearance, much resembles the former; but is furnished with six bands instead of three: the tail is very thick at the base, and is short in proportion to the animal; the claws are very large and strong. The bands are marked into oblong squares, as in the former.

## VAR.

This animal appears to vary as to the number of its bands: the specimens both in the British and Leverian Museums having eight bands instead of six; in all other respects they agree with the six-banded one. A particular character of this species seems to be the remarkable breadth and flatness of the head, which is larger in proportion than in others of the genus. The Leverian eight-banded variety is of a very fair yellowish-white: that in the British Museum is of a much deeper colour, approaching to an iron-grey, but whitish in some parts.

## SEVEN-BANDED ARMADILLO.

*Dasyus Septemcinctus.* *D. cingulis septenis, palmis tetradactylis, plantis pentadactylis.* *Lin. Am. Acad.* 1. p. 281. *Syst. Nat.* p. 54.  
 Armadillo with seven bands, and four toes on the fore feet, and five on the hind.

It is impossible to consider this in any other light than as a mere variety of the nine-banded Armadillo, in which the pattern of the armour, and the relative proportions of the parts, are sufficient to ascertain the species, whatever may happen to be the number of the zones.

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 NINE-BANDED ARMADILLO.

*Dasyus Novemcinctus.* *D. cingulis novem, palmis tetradactylis, plantis pentadactylis.* *Lin. Syst. Nat.* p. 54.

Armadillo with nine zones, four toes on the fore feet, and five on the hind.

*Cataphractus scutis duobus, cingulis novem.* *Briss. Quadr.* 42.

*Tatus.* *Gesn. Quadr.* p. 935.

*Cachicame, ou Tatou à neuf bandes.* *Buff.* 10. p. 215. pl. 37.

Nine-banded Armadillo. *Pennant Quadr.* 2. p. 248.

THE number of bands or zones in this species is generally nine: they are extremely distinct or well defined, and are transversely marked by very numerous wedge-shaped or acutely-triangular figures alternating with smaller opposite ones: the head is smaller, longer in proportion, and sharper snouted than in any other species: the fore and hind parts of the shield or covering are marked by very nu-

merous flat, rounded scales or tubercles, with smaller ones interposed: the ears are moderately large, and upright; the tail is longer than in any other species, and tapers gradually to the tip. It is marked by transverse rows of longish hexagonal divisions on each joint: on the fore feet are four toes, and five on the hind: the claws moderately large and strong.

## VAR.

Though this species preserves, in general, its specific character of *nine bands*; yet this is not always to be depended on, since specimens sometimes occur in which only *eight bands* are visible. A specimen of this kind occurs in the British Museum; and the Count de Buffon assures us, that he has observed two specimens with eight bands only, which in every other respect perfectly resembled the nine-banded ones. He is, therefore, of opinion (and in this we clearly agree with him), that the number of bands, in this species, constitutes not a specific, but a sexual difference: the eight-banded one he supposes to be the male. The general colour of this species is a palish iron-grey; but specimens often occur in Museums of a yellowish-brown cast, having probably lost a part of their original tinge. The scales on the anterior and hinder parts are also sometimes of an angular form instead of round.

The young specimens of this animal also exhibit a difference as to the pattern or marking of

the bands; which, instead of the triangular or wedge shaped marks before described, have a simple series of long-oval marks throughout each band; and the ultimate bands are not so distinctly defined as in the adult animal.

The *Seven-banded Armadillo*, *Dasypus septemcinctus*, of Linnæus and others, as before observed, is not a distinct species, but a mere variety of this; as is also the *Eight-banded Armadillo*, *Dasypus octocinctus*. Lin. Syst. Nat. Gmel.

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TWELVE-BANDED ARMADILLO.

*Dasypus cingulis duodecim.*

Armadillo with twelve zones.

*Dasypus Unicinctus.* Lin. *D. tegmine tripartito, cingulis duodecim.* Lin. Syst. Nat. p. 53.

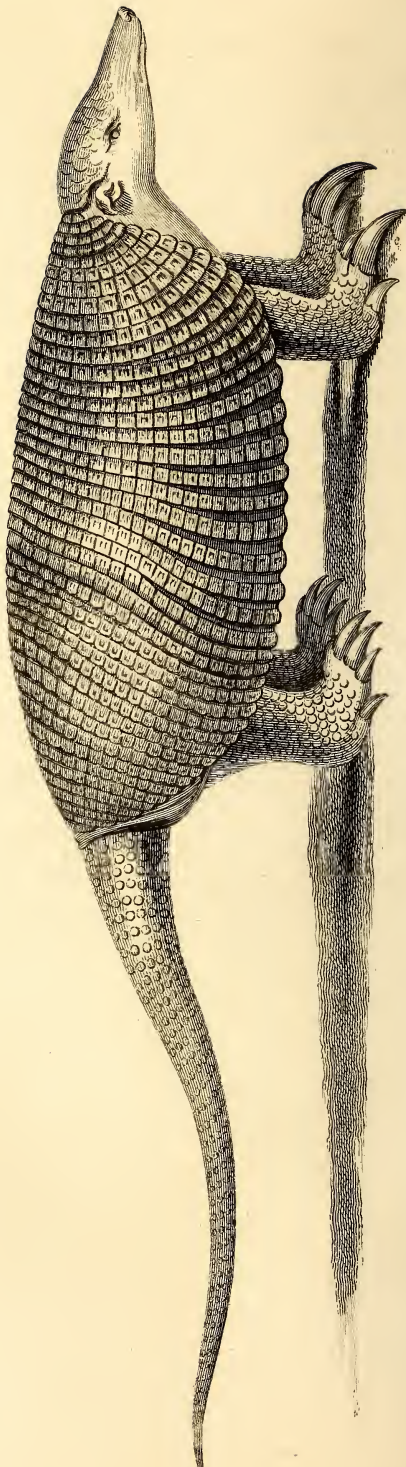
Tatu seu Armadillo Africanus. Seb. 1. p. 57. t. 30.

Kabassou ou Tatou a douze bandes. Buff. 10. p. 218. pl. 40.  
and var.? major, pl. 41.

Twelve-banded Armadillo. Pennant *Quadr.* 2. p. 249.

THE Twelve-banded Armadillo, according to the character generally given in authors, should have twelve zones or bands; but it is certain that this number is not very accurately observed by Nature: and perhaps thirteen or fourteen is the more general number. The individuals also appear to vary in some other particulars. That described by the Count de Buffon and Mr. Pennant, under the title of the Twelve-banded Armadillo, has broad upright ears; the head is thick and broad, and is marked above into large





GREATTER TWELVE-BANDED ARMADILLO.

W. H. P. S.



angular divisions; the crust on the shoulders into oblong pieces inclining to a squarish form: that on the rump into hexagonal ones; (the Count de Buffon describes them as square, though hexagonal in the figure): the fore feet have five toes, with very large and strong claws: the hind feet have the same number, but smaller: the tail is somewhat shorter than the body; and is said by Buffon to have no crustaceous\* covering; differing, in that respect, from every other species: his figure represents it covered with roundish tubercles. The length of this animal, from the nose to the tail, is about a foot; the tail about seven inches, or less.

*Var. ?*

GREATER TWELVE-BANDED ARMADILLO.

This, which is by far the largest of all the Armadillos, differs from the former in the pattern of the shield on the interior and hinder part of the body; all the divisions consisting of oblong squares: the tail also differs, being longer than the body. The measures of the specimen described and figured by Buffon, are thus given,

\* By this, however, we are by no means to understand that the tail is merely covered by skin; on the contrary, it is guarded by scaly tubercles, which secure it almost as strongly as the armour on that of other species; and, indeed, the chief difference is, that these strong tubercles are not, strictly speaking, set in jointed rings, but scattered.

viz. from nose to tail two feet ten inches; and the tail about one foot eight inches. This, Mr. Pen-  
nant says, is the largest he ever heard of: in the  
British Museum, however, is a specimen of ex-  
actly similar dimensions, and which is accurately  
represented on the annexed plate. The head is  
rather small than large; and the snout is sharp-  
ish: the ears small and sharp: the claws exces-  
sively large and strong. The bands, which are  
thirteen in number, are scarce distinguishable  
from the rest of the armour, which both before  
and behind is marked out into narrow zones, di-  
vided into numerous oblong squares: these bands  
on the fore part of the animal are narrower or  
more closely set than on the hind part, and the  
whole exactly agrees with Buffon's figure entitled  
Autre Kabassou (vol. 10. pl. 41.) The colour of  
the whole animal is a pale yellowish-grey.

The figures given in plate 30. vol. 1. of Seba,  
seem to be young ones, and consequently do not  
exhibit with sufficient distinctness some of the  
characters: their heads seem remarkably thick or  
blunt; and the tail of one of them is represented  
as perfectly void of any covering; of the other  
covered with square scaly divisions: the ears in  
both very large.

## EIGHTEEN-BANDED ARMADILLO.

*Dasypus* 18-cinctus. *D. cingulis octodecim.*

Armadillo with eighteen zones.

*Dasypus cingulo simplici.* *Lin. Syst. Nat. Gmel. p. 55.*

Weezle-headed Armadillo. *Grew. mus. reg. soc. p. 19. t. 1.*

Cirquincon, ou Tatou à dix-huit bandes. *Buff. 10. p. 220.*

Eighteen-banded Armadillo. *Pennant Quadr. 2. p. 250.*

THIS was first described by Grew, in the last century, under the name of the Weezle-headed Armadillo. The description was composed from a specimen in the Museum of the Royal Society, and is as follows :

“ His head in figure almost like a Weezle’s, whence I take leave for his name. It is three inches and a half long; his forehead two inches and a half broad, and very flat; the end of his nose half an inch. His eyes small, a quarter of an inch long. His ears two inches distant one from another; an inch long. His body or trunk eleven inches long, about six broad. His tail five inches and a half long; near the buttocks an inch and a quarter over; the extremity the fifth of an inch. His fore leg two inches and a half long, three quarters broad; on which there are five toes; whereof the three foremost are an inch long, the other two half an inch: all with claws the third of an inch. On his hinder foot (which is somewhat bigger) he hath also five toes, as in the foremost. His head, back, sides, legs, and tail, are covered with a shelly armour. His

head-piece, as also the shells on his legs, are composed of roundish scales, a quarter of an inch over. His neck-piece is a single plate, composed of little pieces, a quarter of an inch square. His shoulder-piece consisteth of several ranks or rows of such-like square pieces, but not set together by any articulation or moveable conjunction. His back-piece, reaching also over his buttocks to his tail, is composed of several plates, in number eighteen, moveably joined together by as many intermediate skins. The foremost and greatest of these plates consist of square pieces, half an inch long, and a quarter broad. The hindermost, of square and round ones together. The extreme part of the shell, next the tail, is parabolic. The fore part of the tail is surrounded with six rings; consisting of little square pieces. The other half with scales. His breast, belly, and ears, all naked."

This species seems most allied to the Twelve-banded Armadillo. It appears not to have been figured by any author except Grew, whose representation is far from elegant, but which, for the satisfaction of the reader, it was thought proper to introduce.

The name *unicinctus*, applied, as a trivial, by Linnæus, must be confessed to be not very proper; since it seems to imply a simple or undivided zone on the animal, instead of eighteen.

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The following are clearly no other than varieties, viz. the *Seven-banded of Linnæus*, Am. Acad.

vol. The *Sexcinctus*, pl. 72. of Schreber, and the *Octocinctus*, pl. 73. of the same author. All three being varieties of the *Novemcinctus*, or Nine-banded Armadillo.

The *Cheloniscus* of Columna, aquat. 2. p. 15. t. 16. seems to be no other than a variety of the Three-banded, or *Tricinctus*.

The Four-banded Armadillo of Molina, mentioned in his Natural History of Chili, may perhaps be a distinct species. Molina also mentions an Armadillo with eleven bands, with four toes on the fore feet and five on the hind.

## RHINOCEROS.

*Generic Character.*

*Cornu solidum, perenne, conicum, naso insidens.* || *Horn solid, perennial, conical, seated on the nose.*

## SINGLE-HORNED RHINOCEROS.

Rhinoceros Unicornis. *R. cornu unico.* *Lin. Syst. Nat. Gmel.*  
p. 57.

Rhinoceros with a single horn.

Rhinoceros. *Parsons Phil. Trans. vol. 42.*

*Buff. 11. p. 174. pl. 7.*

*Edwards, pl. 221.*

**T**HE Rhinoceros is the largest of land animals, the Elephant alone excepted. It is of a highly uncouth and awkward form. The back, instead of rising, as in the Elephant, sinks in considerably: the head is moderately large and long: the upper lip protrudes or hangs over the lower in the form of a lengthened tip; and, being extremely pliable, answers the end of a small proboscis; and is useful to the animal in catching hold of the shoots of vegetables, &c. and delivering them into the mouth. On the nose is situated a very



SING. CL. HORNEO RHINOCEROS.





strong, slightly curved, sharp-pointed horn, which, in the full-grown animal, is sometimes three feet in length, and eighteen inches in circumference at the base. The mouth has four cutting-teeth, which are placed at each corner of each jaw: there are also six grinders in each jaw; of which the first is remote from the cutting-teeth. (In strict propriety it may be doubted whether the four teeth first mentioned should be called by the title of cutting-teeth.) The ears are moderately large, upright, and pointed: the eyes small: the skin naked, rough, and tuberculated, or marked with very numerous, large, callous granulations: it is destitute of hair, except a few straggling and very coarse bristles on some parts of the head, &c. About the neck the skin is disposed into several large plaits or folds: another fold of the same kind passes from the shoulders to the fore legs; and another from the hind part of the back to the thighs: the tail is slender, flattened at the end, and covered on the sides with very stiff and thick black hairs: the belly is somewhat pendulous, or shaped like that of a hog: the legs very short, strong, and thick: the feet marked into three large hoofs, all standing forwards. The general height of the Rhinoceros is about eight feet; but it is said that some have been seen in Sumatra and Java which nearly equalled the size of the Elephant; though they appeared lower, on account of the sinking back; the pendulous abdomen, and short legs.

The Rhinoceros is a native of several parts of

India, as well as of the islands of Java, Sumatra, &c. This animal falls far short of the Elephant in sagacity and docility. It is, however, of a quiet and inoffensive disposition, but very furious and dangerous when provoked or attacked; he is said to run with great swiftness, and, from his strength and impenetrable covering, is capable of rushing with resistless violence through woods and obstacles of every kind; the trees bending like twigs while he passes between them. In general habits and manner of feeding the Rhinoceros resembles the Elephant; residing in cool sequestered spots, near waters, and in shady woods: it delights in rolling occasionally in the mud, in the manner of a hog. Its skin is so hard as to be impenetrable by any common weapons, except on the belly: it is even said, that, in order to shoot a full-grown Rhinoceros of advanced age, it is necessary to make use of iron bullets; those of lead having been known to be flattened against the skin.

The bones of the Rhinoceros, like those of the Elephant, are often found in a fossil state in various parts of the world; and in the year 1772 an entire Rhinoceros was found buried in the banks of a Siberian river, in the ancient frozen soil, with the skin, tendons, and some of the flesh, in the highest state of preservation. It was discovered in the sandy banks of the river Witim, which falls into the Lena, below Jakutsk, in N. lat. 64. A full account of this curious discovery is given by Dr. Pallas, in the 17th vol. of the Petersburg Transactions.

The first specimen of the common or Indian Rhinoceros ever imported into Europe since the time of the Romans, is supposed to have been that which was presented to Emanuel, king of Portugal, in the year 1513. It gave rise to the first figure of the Rhinoceros by Albert Durer; but it is concluded, and not without good reason, that he never saw the animal himself, but received from some correspondent the drawing from which he executed his figure, which evidently appears to have been decorated with fictitious folds, plaits, scales, and scollopings, and, besides the horn on the nose, has a smaller one situated on the back of the neck. This figure of Albert Durer's has been frequently copied in works on natural history, and occurs in Gesner, Aldrovandus, &c. &c. The other figures of the Rhinoceros, afterwards published, though free from Albert Durer's errors, were still faulty; and it was not till the year 1743 that a faithful representation of this animal was presented to the public. This appeared in the Philosophical Transactions, and the figure was executed under the superintendance of Dr. Parsons, an excellent zoologist of that period. The celebrated Edwards also, in the first volume of his "Gleanings of Natural History," published a beautiful representation of the same specimen. The animal, however, was but young, and the horn, of course, but in its first approach towards elongation. The figure in the Count de Buffon's Natural History seems to have been the next authentic representation, and appears to have been some-

what more advanced in age than that figured by Edwards and Dr. Parsons.

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TWO-HORNED RHINOCEROS.

Rhinoceros Bicornis. *R. cornubus duobus.* *Lin. Syst. Nat. Gmel.*  
p. 57.

Rhinoceros with two horns.

*Sparmann act. Holm.* 1778.

Two-horned Rhinoceros. *Pennant Quadr.* 1. p. 150. *Buff. suppl.* 6.  
pl. 6.

THIS species is found in various parts of Africa, and seems to have been the kind which was known to the ancient Romans, and by them exhibited in their public shows and combats of animals. In size it equals the common or single-horned species; and its habits and manner of feeding are the same: but it differs greatly in the appearance of its skin, which, instead of the vast and regularly marked armour-like folds of the former, has merely a very slight wrinkle across the shoulders, and on the hinder parts, with a few fainter wrinkles on the sides, so that, in comparison with the common Rhinoceros, it appears almost smooth: the skin, however, is rough or tuberculated, especially in the larger specimens: but what constitutes the specific or principal distinction is, that the nose is furnished with two horns, one of which is smaller than the other, and situated above it, or higher up on the front. These horns are said to be loose when the animal is in a quiet state,





but to become firm and immoveable when it is enraged. This observation is confirmed by Dr. Sparman, who observed, in a specimen which he shot in Africa, that they were fixed to the nose by a strong apparatus of muscles and tendons, so as to allow the animal the power of giving them a steady fixture on proper occasions. This, indeed, is treated by Mr. Bruce, the celebrated Abyssinian traveller, as an absurd idea; but, on inspecting the horns and skin on which they are seated, it does not appear that they are firmly attached to or connected with the bone of the cranium.

Mr. Bruce is also of opinion that the common or Single-horned Rhinoceros is found in many parts of Africa, as well as in Asia; and in this there surely seems no improbability.

The figure of the two-horned species in Mr. Pennant's *History of Quadrupeds* seems to represent the whole animal scaly; the roughness of the skin being probably somewhat too harshly expressed in the engraving.

That in the supplement to Buffon, vol. 6. pl. 6. is a much superior representation.

The figure of the Two-horned Rhinoceros, in Mr. Bruce's travels, is unquestionably a copy of Buffon's representation of the common Rhinoceros, with the addition of a second horn. Whether this was done merely to save trouble, or whether the specimen seen by Mr. Bruce had really the same kind of folds and roughnesses on its skin as the common species, or, lastly, whether it was

a real variety of that animal, it is not easy to determine; but the latter seems the most favourable construction, and (if we allow that species to be found in Africa) is by no means an improbable supposition; since all other travellers, who have seen and described the two-horned species, agree in affirming that the very strong plaits and armour-like appearance of the skin, which so strikingly distinguish the common Rhinoceros, are not visible, or, at least, but very obscurely visible, in the two-horned species.

Mr. Bruce's description of the manner of feeding, as well as of some other particulars relative to the Two-horned Rhinoceros, seems highly worthy of notice. He informs us, that, "besides the trees capable of most resistance, there are, in the vast forests within the rains, trees of a softer consistence, and of a very succulent quality, which seem to be destined for his principal food. For the purpose of gaining the highest branches of these, his upper lip is capable of being lengthened out so as to increase his power of laying hold with this in the same manner as the Elephant does with his trunk. With this lip, and the assistance of his tongue, he pulls down the upper branches which have most leaves, and these he devours first; having stript the tree of its branches, he does not therefore abandon it, but, placing his snout as low in the trunk as he finds his horns will enter, he rips up the body of the tree, and reduces it to thin pieces, like so many laths; and when he has thus prepared it, he embraces as much of it



as he can in his monstrous jaws, and twists it round with as much ease as an ox would do a root of celery, or any such pot-herb or garden-stuff.

“ When pursued, and in fear, he possesses an astonishing degree of swiftness, considering his size, the apparent unwieldiness of his body, his great weight before, and the shortness of his legs. He is long, and has a kind of trot, which, after a few minutes, increases in a great proportion, and takes in a great distance; but this is to be understood with a degree of moderation. It is not true, that in a plain he beats the horse in swiftness. I have passed him with ease, and seen many worse mounted do the same, and though it is certainly true that a horse can very seldom come up with him, this is owing to his cunning, but not his swiftness. He makes constantly from wood to wood, and forces himself into the thickest part of them. The trees that are frush, or dry, are broke down, like as with a cannon shot, and fall behind him and on his side in all directions. Others that are more pliable, greener, or fuller of sap, are bent back by his weight and velocity of his motions. And, after he has passed, restoring themselves like a green branch to their natural position, they sweep the incautious pursuer and his horse from the ground, and dash them in pieces against the surrounding trees.

“ The eyes of the Rhinoceros are very small, and he seldom turns his head, and, therefore, sees nothing but what is before him. To this he

owes his death, and never escapes if there is so much plain as to enable the horse to get before him. His pride and fury, then, make him lay aside all thoughts of escaping, but by victory over his enemy. He stands for a moment at bay, then, at a start, runs straight forward at the horse, like the wild boar, whom, in his manner of action, he very much resembles. The horse easily avoids him, by turning short to aside; and this is the fatal instant: the naked man, with the sword, drops from behind the principal horseman, and, unseen by the Rhinoceros, who is seeking his enemy, the horse, he gives him a stroke across the tendon of the heel, which renders him incapable of further flight or resistance.

“ In speaking of the great quantity of food necessary to support this enormous mass, we must likewise consider the vast quantity of water which he needs. No country but that of the Shangalla, which he possesses, deluged with six months' rain, and full of large and deep basons, made in the living rock, and shaded by dark woods from evaporation, or watered by large and deep rivers, which never fall low or to a state of dryness, can supply the vast draughts of this monstrous creature: but it is not for drinking alone that he frequents wet and marshy places; large, fierce, and strong as he is, he must submit to prepare himself against the weakest of all adversaries. The great consumption he constantly makes of food and water necessarily confine him to certain limited spaces; for it is not every place that can maintain





SUMATRAN RHINOCEROS, from the *Phil. Trans.*

him; he cannot emigrate, or seek his defence among the sands of Atbara."

The adversary just mentioned is a fly (probably of the genus *Æstrus*), which attacks the Rhinoceros, as well as the Camel and many other animals, and would, according to Mr. Bruce, as easily subdue him, but for the stratagem which he practises of rolling himself in the mud by night, by which means he clothes himself in a kind of case, which defends him from his adversary the following day. The pleasure that he receives from thus rolling in the mud, and the darkness of the night, deprive him of his usual vigilance and attention. The hunters steal secretly upon him, and while lying on the ground, wound him with their javelins; mostly in the belly, where the wound is mortal.

#### SUMATRAN RHINOCEROS.

In the Philosophical Transactions, for the year 1793, we also meet with a good figure of a Two-horned Rhinoceros, with an accurate description, by Mr. Bell, surgeon, who had resided some time in Sumatra. The specimen, however, which he describes, was but young, and probably far short of its full size.

“The shape of the animal was much like that of the hog. The general colour was a brownish-ash; under the belly, between the legs and folds of the skin, a dirty flesh-colour.”

“ The head much resembled that of the Single-horned Rhinoceros. The eyes were small, of a brown-colour; the *membrana nictitans* thick and strong.

“ The skin surrounding the eyes was wrinkled. The nostrils were wide. The upper lip was pointed, and hanging over the under.

“ There were six *molares*, or grinders, on each side of the upper and lower jaw, becoming gradually larger backward, particularly in the upper. Two teeth in the front of each jaw.

“ The tongue was quite smooth.

“ The ears were small and pointed, lined and edged with short black hair, and situated like those of the Single-horned Rhinoceros.

“ The horns were black; the larger was placed immediately above the nose, pointing upwards, and was bent a little back: it was about nine inches long. The small horn was four inches long, of a pyramidal shape, flattened a little, and placed above the eyes, rather a little more forward, standing in a line with the larger horn, immediately above it. They were both firmly attached to the skull, nor was there any appearance of joint or muscles to move them.

“ The neck was thick and short, the skin on the under side thrown into folds, and these folds again wrinkled.

“ The body was bulky and round, and from the shoulder ran a line or fold, as in the Single-horned Rhinoceros, though it was but faintly

marked. There were several other folds and wrinkles on the body and legs; and the whole gave rather the appearance of softness.

“The legs were thick, short, and remarkably strong; the feet armed with three distinct hoofs, of a blackish-colour, which surrounded half the foot, one in front, the others on each side. The soles of the feet were convex, and of a light colour, and the cuticle on them not thicker than on the foot of a man who is used to walking.

“The whole skin of the animal is rough, and covered very thinly with short black hair. The skin was not more than one third of an inch in thickness, at the strongest part; under the belly it was hardly a quarter of an inch; any part of it might be cut through with ease by a common dissecting knife.

“The animal had not that appearance of armour which is observed in the Single-horned Rhinoceros.

“Since I dissected the male, I have had an opportunity of examining a female, which was more of a lead-colour: it was younger than the male, and had not so many folds or wrinkles in its skin; of course it had still less the appearance of armour.”

The height of the first of these specimens, or the male, was, according to Mr. Bell, four feet four inches at the shoulder; nearly the same at the rump; and eight feet five inches from the tip of the nose to the end of the tail.

Upon the whole, there can be little doubt that there are, in reality, three different species of Rhinoceros, viz. the common or single-horned Asiatic Rhinoceros, which seems to admit of occasional varieties, and may, perhaps, be sometimes furnished with a second or smaller horn; the African double-horned Rhinoceros with a rough or tuberculated skin, which was the species known to the ancient Romans; and, lastly, the Sumatran double-horned Rhinoceros, described and figured by Mr. Bell in the Philosophical Transactions.

The skulls of the above animals, compared together, exclusive of other characters, afford sufficient grounds for supposing a real difference of species. It is also necessary to observe here, that the Sumatran species, being furnished with *dentes primores*, or fore teeth, seems, of course, to contradict the character of the order *Bruta*, in which it is here placed. The common Rhinoceros also, when young, is provided with fore teeth, which are afterwards lost; as is probably the case in the Sumatran species.

In the twelfth edition of the *Systema Naturæ* the genus Rhinoceros was stationed among the *Belluæ*. In reality, however, where other prominent characters appear, and which are of themselves sufficient for the purpose of investigation, this scrupulous attention to the nature and situation of the teeth is the less important.

Mons. Geoffroy, in the *Magazin Encyclopédique*, is inclined to believe that there either exist, or, at least, have existed, no less than five differ-



ent species of Rhinoceros, viz. 1. The Rhinoceros Africanus cornu gemino of Camper, who has given a figure of the skull in the Petersburg Transactions for the year 1777. 2. The species found fossil in Siberia, and which, Mons. Geoffroy contends, is different from the common two-horned Rhinoceros, though of that division in the genus. 3. That of which the skull is figured by Camper, and described by him in a letter to Dr. Pallas in the abovementioned volume of the Petersburg Transactions: this is a single-horned species, and was confounded, even by Camper, with the common Rhinoceros. 4. The common Single-horned Asiatic Rhinoceros. 5. The Sumatran Rhinoceros, described by Mr. Bell in the Philosophical Transactions.

## ELEPHANT.

*Generic Character.*

<i>Dentes Primores</i> nulli utrinque.		<i>Cutting-teeth</i> none in either jaw.
<i>Laniarii superiores</i> elongati; inferiores nulli.		<i>Tusks</i> in the upper jaw.
<i>Proboscis</i> longissima prehensilis.		<i>Proboscis</i> very long, prehensile.
<i>Corpus nudiusculum.</i>		<i>Body</i> nearly naked.

## GREAT ELEPHANT.

*Elephas Maximus.* *Lin. Syst. Nat.* p. 48.

Great Elephant. *Pennant Quadr.* 1. p. 165.

*Elephantus.* *Gesm. Quadr.* 337. *Aldr. Quadr. soliped.* l. 1. p. 418.

*Johnst. Quadr.* pl. 7, 8, 9. *Buff.* 11. pl. 1. and *suppl.* 3. pl. 59. and 6. pl. 2.

*Edwards,* pl. 221.

THE stupendous size, strength, and sagacity of the Elephant, have, in all ages, rendered it the admiration of mankind. Though possessed of power superior to every other quadruped, it is guiltless of unprovoked violence, and wanders



ELEPHANT.

Woolrich's, Published by G. Hensley, Fleet Street.



about the woods of Asia and Africa in a state of majestic mildness. Elephants are naturally gregarious. Large troops assemble together, and live in a kind of society. They feed only on vegetables, and are fond of the young shoots of trees. The Elephant is generally of a deep ash-coloured brown, or nearly blackish; but in some parts of India it is said to be found, though very rarely, of a white colour. In the young animals the tusks are not visible: in the more advanced state of growth they are extremely conspicuous; and in the full-grown animal they advance several feet from the mouths of their sockets: it is but rarely that the tusks are seen in the females; and, when they appear, they are but small, and their direction is rather downwards than upwards: this is also the case in some specimens of the male Elephant; so that there appears to be some variation in this respect in different individuals. Tusks have sometimes been seen upwards of ten feet long; particularly from the Mozambique and Cochinchina.

The teeth which are imported into Europe are generally from Africa, where they are frequently found in the woods. Instances have sometimes occurred, in which, on sawing a tooth, a brass bullet has been found completely imbedded in the central part of the tooth; the ivory having gradually grown over it, and enclosed it.

The Elephant is undoubtedly the largest of all terrestrial animals, arriving at the height of twelve feet; though the more general height

seems to be from nine to ten feet\*. Elephants are commonly found in the midst of shady woods, being equally averse to extreme heat as to cold: they delight in cool spots, near rivers, and frequently bathe themselves in the water, and even roll in the mud. They are also capable of swimming with great ease. Their general food consists of the tender branches of various trees, as well as of grains and fruits. It is for this reason that their incursions are so much dreaded in plantations of various kinds, where they are said occasionally to commit the most violent depredations; at the same time, injuring the crops by trampling the ground with their vast feet. The trunk of the Elephant may justly be considered as one of the miracles of Nature; being, at once, the organ of respiration, and the instrument by which the animal supplies itself with food; conveying whatever it eats into the mouth by its assistance. By this instrument also it drinks; first sucking up the water by the trunk, and then pouring it into the mouth. This wonderful organ is, as it were, composed of a vast number of flexible rings, and consists of a double tube, with a somewhat flattened circular tip, furnished with a projecting point, or fleshy moveable hook, of extreme sensibility, and with which it can pick up the smallest object at

\* How much the size of these animals has been exaggerated may be judged from the account given by Dr. Hill, who, in his *Natural History*, tells us, that the Elephant, when at full growth, measures from seventeen to twenty feet in height, from the ground to the highest part of the back. Vide Hill's *Nat. Hist. of Animals*, p. 565.

pleasure. The trunk, being flexible in all directions, performs the office of a hand and arm. On its under surface it is somewhat flattened, and is circularly formed on the upper. At the end of the trunk are situated the nostrils. The teats in the female Elephant are two in number, and are situated at a small distance behind the fore legs. The eyes are extremely small; the ears very large, somewhat irregularly waved on the edges, and pendulous. In each jaw are four large and flat grinding teeth, with the upper surfaces flat, and scored or striated with numerous transverse furrows. In the upper jaw are the two tusks before described. The form of the whole animal is extremely awkward: the head very large: the body very thick: the back greatly arched: the legs extremely thick, very short: and the feet slightly divided into, or rather edged with, five rounded hoofs: the tail is of a moderate length, and is terminated by a few scattered hairs, of great thickness, and of a black-colour: the general colour of the skin is also dusky or blackish, as before mentioned, and has a few thinly scattered hairs or bristles dispersed over it, and which are somewhat more numerous about the head.

The tales related of the sagacity of the Elephant are, in all probability, somewhat exaggerated, and must consequently be received with a degree of limitation: but there is no reason to doubt that they are possessed of a greater degree of intelligence than most other quadrupeds (the

dog excepted); and that, when in a state of domestication, they may be taught to perform many operations, requiring not only strength but skill in their execution. It appears, from the most authentic information, that they are highly attached to those who have them under their care: that they are grateful for attentions shewn them, and mindful of any injury received; which they generally find some means of retaliating. Some elegant anecdotes of this kind are related by Pliny; and the laborious Aldrovandus has collected many others. Mr. Pennant has admitted some into his History of Quadrupeds. The celebrated story of the taylor of Delli is a remarkable example of the Elephant's sagacity. In that city an Elephant, passing along the streets, put his trunk into a taylor's shop, where several people were at work: one of them pricked the end of the trunk with his needle: the Elephant passed on; but, in the first dirty puddle, filled his trunk with the water, and returning, squirted every drop among the people who had offended him, and spoiled the rich garments they were at work upon.

It is said that Elephants have been taught to lade vessels with goods, which they have stowed in proper order, and with much address.

The Indian Elephants, but more especially those of the island of Ceylon, excel the African Elephants in size and strength. Those of India are said to carry with ease three or four thousand weight. In a state of nature they use the tusks for tearing up trees, and the trunk for breaking



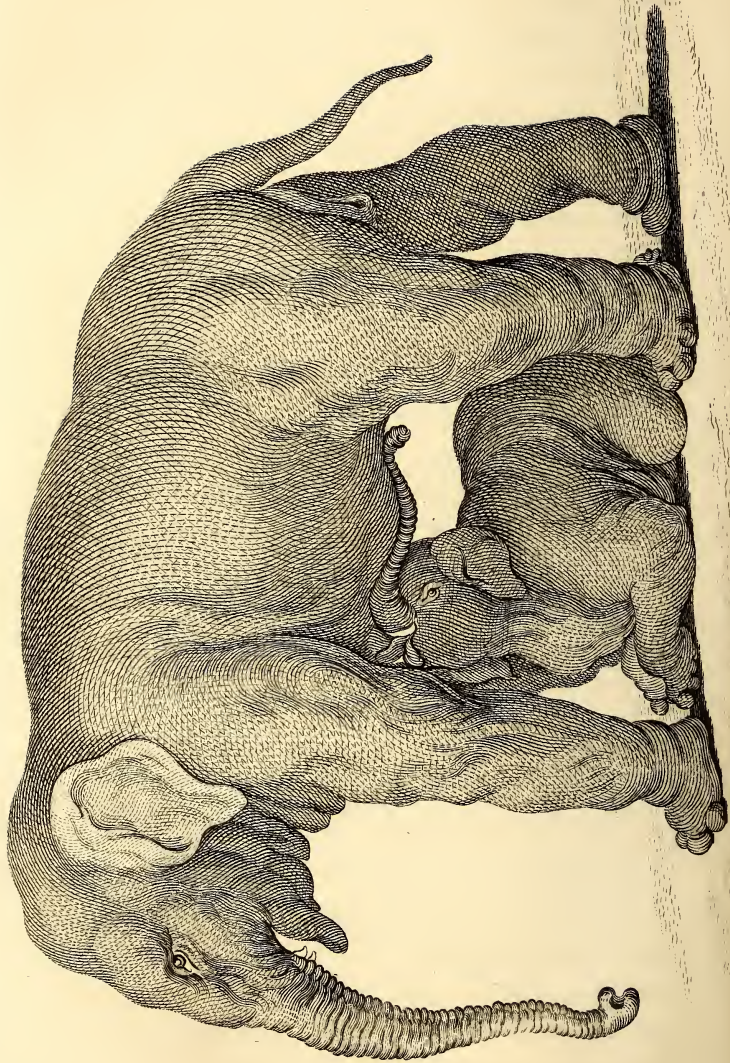
the branches. It has been affirmed that they run as swiftly as a horse can gallop; but Mr. Pennant assures us, that what has been said on this subject is a mistake; and that a nimble Indian can easily outstrip them.

The contrivances for taking Elephants are various. The Ceylonese sometimes surround the woods with numerous bands, and drive with lighted torches, and all manner of noises, the Elephants which inhabit them, till they are at length entrapped into a particular spot surrounded with strong pallisades, so as to prevent all escape. At other times a kind of decoy or female Elephant is sent out in order to induce some of the males to pursue her, who are by this means secured. When a wild Elephant is taken, it still remains to reduce it to a quiet state; and to tame it, in order to be made useful: this is effected by throwing ropes round the legs and body, which are well secured; and two tame Elephants, properly instructed, are placed on each side. The captive animal finds himself gradually so fatigued by his ineffectual struggles, and so much soothed by the caresses occasionally given by the trunks of the tame Elephants, by the food from time to time presented to him, and the water with which he is refreshed by pouring it over him, that in the space of some days he becomes completely tame, and is placed with the rest of the domesticated troop. Sometimes, in order to subdue them the more effectually, they are deprived of sleep for a considerable space.

Great care is taken by the grandees of India in the management and decoration of their Elephants; which, after their daily feeding, bathing, oiling, and rubbing, are often painted about the ears and head with various colours, and their tusks are surrounded with rings of gold or silver; and when employed in processions, &c. they are clothed in the most sumptuous trappings.

By the ancient Indians they were much used in war; and we are told that Porus, the Indian monarch, opposed the passage of Alexander over the Hydaspes with eighty-five Elephants. Buffon also imagines that some of the Elephants which were taken by Alexander, and sent into Greece, were employed by Pyrrhus against the Romans. The Romans received their Elephants from Africa, and that in great numbers; since it appears that Pompey entertained the people with a show of eighteen in the space of five days; which were all destroyed in conflicts with armed men. Fifty lions were also exhibited in the same space. The crying and distress of the wounded Elephants is said to have excited much commiseration among the Roman people. It is highly remarkable, if true, that the young Elephants do not attach themselves to their dams in particular, but suck indiscriminately the females of the whole herd. Mr. Bruce, however, in his travels, gives a particular description of the more than common attachment of a young Elephant to its dam, which it endeavoured to defend, when wounded, and with much fierceness assaulted the invaders. The young Ele-





ELEPHANT SUCKLING ITS YOUNG.

*Elephas*

phants do not suck by the trunk, but by the mouth, as represented on the plate annexed.

It is a most curious fact, and may well excite our astonishment, that skeletons resembling those of Elephants are occasionally found in a fossil state, and in large quantities, at a great depth under the surface, in the most northern parts of Asia\*. “All the Arctic circle (says Mr. Pennant) is a vast mossy flat, formed of a bed of mud or sand, seeming the effect of the sea, and which gives reason to think that that immense tract was in some very distant age won from it. With them are mixed an infinitely greater number of marine bodies than are found in the higher parts of that portion of Asia. I give the fact: let others, more favoured, explain the cause how these animals were transported from their torrid seats to the Arctic regions: I should have recourse to the only one we have authority for; and think that phenomenon sufficient: I mention this, because modern philosophers look out for a later cause: I rest convinced: therefore to avoid contradicting what can never be proved.”

We must by no means here omit the fossil bones, viz. jaws, vertebræ, thigh-bones, and tusks, which are often found in some parts of North America: they are commonly found about five or six feet below the surface, on the banks of the river Ohio,

\* A scrupulous anatomical investigation of these bones seems to prove, according to some late observations of the French naturalists, that they are in reality different from those of the Elephant, notwithstanding their general similarity; and are, therefore, to be numbered among the species of lost animals, known only from their fossil remains.

not far from the river Miame, seven hundred miles from the sea coast. Of these the thigh-bones are much thicker in proportion than in the common Elephant: the grinders or side-teeth are very different from those of the Elephant, and, instead of having a flat top with numerous transverse scores, as in that animal, are pretty deeply lobed, like the teeth of carnivorous animals: the tusks bear a great resemblance to those of the common Elephant, but have an inclination to a spiral curve towards the smaller end\*: in their common texture they perfectly resemble common ivory. It seems, therefore, extremely clear that this animal must have been a species differing from the common Elephant, but greatly resembling it. Whether it may yet exist in any of the unexplored parts of the globe, must be left to future investigations to determine. These bones are not peculiar to the northern regions of America, but have also been found in Siberia, in Peru, and in the Brasils; and it has been remarked that they are found at greater depths than the remains of the common Elephant, in strata, which are supposed to have been the ruins of the old world, after the event of the deluge.

The Elephant brings only one young at a time: very rarely two: the young are about three feet high when they are first born; and continue grow-

\* The tusks of the common Elephant have sometimes not only an inclination to a spiral bend, but are actually twisted into two or three spiral curvatures, as in that described and engraved in Grew's *Museum Regalis Societatis*; and which is now preserved in the British Museum.

ing till they are sixteen or twenty years old: they are said to live a hundred or a hundred and twenty years.

In the Philosophical Transactions, for the year 1799, we find some curious particulars relative to the natural history of the Elephant, by Mr. Corse, whose residence in India afforded him opportunities of investigating the subject with exactness.

From these observations it appears that something must be subtracted from that elevated character with which this animal has been so frequently honoured; and that neither its docility nor its memory can be allowed a very high rank, when compared with those of some other animals; and that the scrupulous delicacy, which, as it was pretended, forbid all public demonstration of its passions, is a mere fable. A female Elephant has also been known to forget her young one, after having been separated from it for the short space of only two days, and to repel its advances. An Elephant, also, which had escaped from its confinement, has again suffered itself to be trepanned, and reconducted to its state of captivity; thus contradicting, in a remarkable manner, the Horatian sentiment:

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Quæ bellua ruptis,  
Cum semel effugit, reddit se prava catenis? \*

Both male and female Elephants, Mr. Corse informs us, are divided by the natives of Bengal

\* What beast, deliver'd from the broken chain,  
Perverse in folly, seeks his bonds again?

into two casts, viz. the Koomareah, and the Merghee. The first consists of the large or full-bodied kind; the second of the more slender, with longer legs and thinner trunk in proportion; it is also a taller animal, but not so strong as the former. A large trunk is always considered as a great beauty in an Elephant, so that the Koomareah is preferred not only on this account, but for his superior strength in carrying burthens, &c. Many indistinct varieties are again produced from the intermixture of these two breeds. The torrid zone seems to be the natural clime of the Elephant, and the most favourable for the production of the largest and hardiest race; and when this animal migrates beyond the tropics, the species degenerates. On the coasts of Malabar, Elephants are taken as far north as the territories of Coorgah Rajah; but these, according to Mr. Corse, are much inferior to the Ceylonese Elephant.

Mr. Corse's observations on the teeth of the Elephant, and the gradual progress of dentition, are extremely curious. The principal particulars are the following:

“The tusks in some female Elephants are so small as not to appear beyond the lip, whilst in others they are almost as large and long as in one variety of the male, called Mooknah. The grinders are so much alike in both sexes, that one description may serve for both. The largest tusks, and from which the best ivory is supplied, are taken from that kind of male Elephant, called Dauntelah, from this circumstance, in opposition



to the Mooknah, whose tusks are not larger than those of some females. An Elephant is said to be perfect when his ears are large and rounded, not ragged or indented at the margin: his eyes of a dark hazel-colour, free from specks: the roof of his mouth and his tongue without dark or blackish spots of any considerable size: his trunk large: his tail long, with a tuft of hair reaching nearly to the ground. There must be five nails on each of his fore feet, and four on each of the hind ones: his head well set on, and carried rather high: the arch or curve of his back rising gradually from the shoulder to the middle, and thence descending to the insertion of the tail; and all his joints firm and strong. In one variety of the Elephant the tusks point downwards, projecting only a little way beyond the trunk. The tusks in Elephants are fixed very deep in the upper jaw; and the root or upper part, which is hollow, and filled with a core, goes as high as the insertion of the trunk, round the margin of the nasal opening to the throat; which opening is just below the protuberance of the forehead. Through this opening the Elephant breathes, and by its means he sucks up water into his trunk: between it and the roots of the tusks there is only a thin bony plate. The first or milk-tusks of an Elephant never grow to any considerable size, but are shed between the first and second year, when not two inches in length. The time at which the tusks cut the gum varies considerably: sometimes a young Elephant has his tusks at five months old, and sometimes not till seven. Even in a foetus,

which has arrived at its full time, these deciduous tusks are formed. A young Elephant shed one of his milk-tusks on the 6th of November, 1790, when about thirteen months old; and the other on the 7th of December, when above four months old. Two months afterwards the permanent ones cut the gums, and on the 19th of April, 1791, they were an inch long. Another young Elephant did not shed his milk-tusks till he was sixteen months old, which proves that the time of this process varies considerably. The permanent tusks of the female are very small, compared with those of the male; and do not take their rise so deep in the jaw. The largest Elephant tusks Mr. Corse ever saw in Bengal did not exceed the weight of seventy-two pounds avoirdupois: at Tiperah they seldom exceed fifty pounds each. Both these weights are very inferior to that of the tusks brought from other parts to the India House, where some have weighed 150 pounds each. These, Mr. Corse suspects, were from Pegu. The African Elephant is said to be smaller than the Asiatic: yet the ivory-dealers in London affirm that the largest tusks come from Africa, and are of a better texture, and less liable to turn yellow, than the Indian ones. The increase of the tusks arises from circular layers of ivory, applied internally, from the core on which they are formed; similar to what happens in the horns of some animals.

The grinders of Elephants may be considered as composed of several distinct laminae or teeth, each covered with its proper enamel; and these

teeth are merely joined to each other by an intermediate softer substance, acting as a cement. This structure, even at first glance, must appear very curious, being composed of a number of perpendicular laminae, which may be considered as so many teeth; each covered with a strong enamel, and joined to one another by the common osseous matter: this, being much softer than the enamel, wears away faster by the mastication of the food; and in a few months after these teeth cut the gum, the enamel rises considerably higher, so that the surface of each grinder soon acquires a ribbed appearance, as if originally formed with ridges. The number of these teeth, or portions, of which an Elephant's grinder is composed, varies from four to twenty-three, according as the animal advances in age; so that a grinder or case of teeth in a full-grown Elephant is more than sufficient to fill one side of the mouth. The shape of the grinders of the lower jaw differs from those of the upper, which are very convex on the back part, whereas the lower has a bent or curved direction, adapting itself to the shape of the jaw; and is concave on the surface. The grinders, like the tusks, are already formed, even in the very young animal. The first set of grinders, or milk-teeth, begin to cut the gum eight or ten days after birth: they are not shed, or cast, as the milk-tusks are, but are gradually worn away during the time the second set are coming forward. Mr. Corse could not ascertain the exact time at which the second set of grinders make their appearance,

but when the Elephant is two years old, the second set are then completely in use. At about this period the third set begins to cut the gum, and from the end of the second to the beginning of the sixth year, the third set comes gradually forward as the jaw lengthens, not only to fill up this additional space, but also to supply the place of the second set, which are, during the same period, gradually worn away, and their fangs or roots absorbed. From the beginning of the sixth to the end of the ninth year, the fourth set of grinders comes forward, to supply the gradual waste of the third set. After this period other sets are produced, but in what time, and in what proportion, is not yet ascertained; but it is reasonable to conclude, that every succeeding grinder takes a year longer than its predecessor to be completed; and consequently, that the fifth, sixth, seventh, and eighth set of grinders will take from five to eight years (and probably much longer) each set, before the posterior lamina has cut the gum.

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SUKOTYRÖ.

THAT we may not seem to neglect so remarkable an animal, though hitherto so very imperfectly known, we shall here introduce the Sukotyro. This, according to Niewhoff, its only describer, and who has figured it in his travels to the East Indies, is a quadruped of a very singular shape. Its size is that of a large ox: the snout like that



SIKOTYHO.



of a hog: the ears long and rough; and the tail thick and bushy. The eyes are placed upright in the head, quite differently from those of other quadrupeds. On each side the head, next to the eyes, stand the horns, or rather teeth, not quite so thick as those of an Elephant. This animal feeds upon herbage, and is but seldom taken. It is a native of Java, and is called by the Chinese *Sukotyro*. This is all the description given by Niewhoff. The figure is repeated in Churchill's Collection of Voyages and Travels, vol. 2. p. 360. Niewhoff was a Dutch traveller, who visited the East Indies about the middle of the last century, viz. about the year 1563, and continued his peregrinations for several years. It must be confessed that some of the figures introduced into his works are not remarkable for their accuracy.

## PLATYPUS.

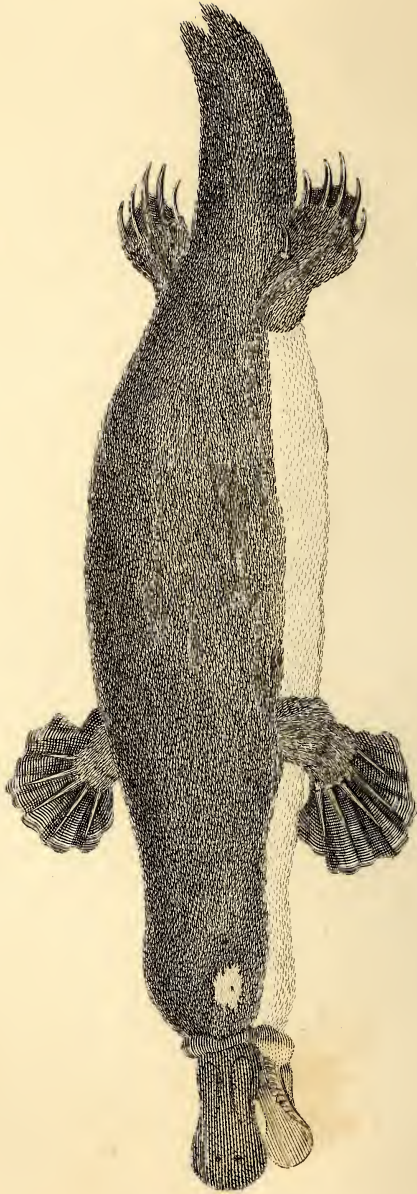
*Generic Character.**Os* anatinum.*Pedes* palmati.

<i>Mouth</i> shaped like the bill of a duck. <i>Feet</i> webbed.
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OF this most extraordinary genus the first description appeared in the Naturalist's Miscellany; but as the individual there described was the only one which had been seen, it was impossible not to entertain some distant doubts as to the genuine nature of the animal, and to surmise, that, though in appearance perfectly natural, there might still have been practised some arts of deception in its structure. I, therefore, hesitated as to admitting it into the present History of Quadrupeds. Two more specimens, however, having been very lately sent over from New Holland, by Governor Hunter, to Sir Joseph Banks, the suspicions before mentioned are now completely dissipated. I shall, therefore, here repeat my first description in the work above mentioned, and have only to observe, that the genus should be placed, as there proposed, next to that of *Myrmecophaga*, in the present order of *Bruta*.







DUCK-BILLED PLATYPUS.

## DUCK-BILLED PLATYPUS.

Platypus Anatinus. *Vivarium Naturæ*, tab. 385.

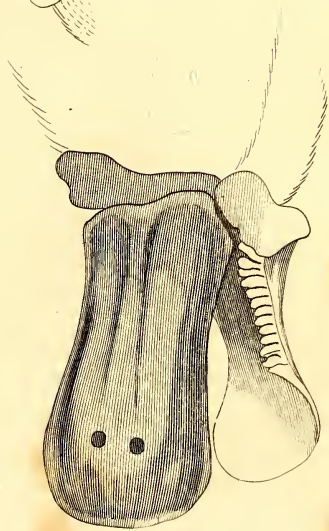
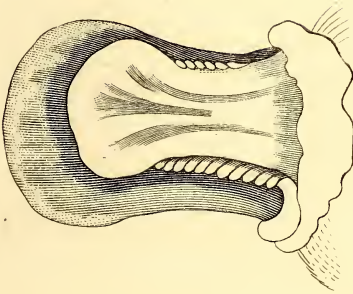
The Duck-billed Platypus. *Naturalist's Miscellany*, pl. 385.

THE animal exhibited on the present plate constitutes a new and singular genus, which, in the Linnæan arrangement of quadrupeds, should be placed in the order *Bruta*, and should stand next to the genus *Myrmecophaga*.

Of all the Mammalia yet known it seems the most extraordinary in its conformation; exhibiting the perfect resemblance of the beak of a Duck engrafted on the head of a quadruped. So accurate is the similitude, that, at first view, it naturally excites the idea of some deceptive preparation by artificial means; the very epidermis, proportion, serratures, manner of opening, and other particulars of the beak of a shoveler, or other broad-billed species of duck, presenting themselves to the view: nor is it without the most minute and rigid examination that we can persuade ourselves of its being the real beak or snout of a quadruped.

The body is depressed, and has some resemblance to that of an Otter in miniature: it is covered with a very thick, soft, and beaver-like fur, and is of a moderately dark brown above, and of a subferruginous white beneath. The head is flat-tish, and rather small than large: the mouth or snout, as before observed, so exactly resembles that of some broad-billed species of duck that it

might be mistaken for such: round the base is a flat, circular membrane, somewhat deeper or wider below than above, viz. below near the fifth of an inch, and above about an eighth. The tail is flat, furry like the body, rather short, and obtuse, with an almost bifid termination: it is broader at the base, and gradually lessens to the tip, and is about three inches in length: its colour is similar to that of the body. The length of the whole animal from the tip of the beak to that of the tail is thirteen inches: of the beak an inch and half. The legs are very short, terminating in a broad web, which on the fore feet extends to a considerable distance beyond the claws; but on the hind feet reaches no farther than the roots of the claws. On the fore feet are five claws, strait, strong, and sharp-pointed: the two exterior ones somewhat shorter than the three middle ones. On the hind feet are six claws, longer and more inclining to a curved form than those on the fore feet: the exterior toe and claw are considerably shorter than the four middle ones: the interior or sixth is seated much higher up than the rest, and resembles a strong, sharp spur. All the legs are hairy above: the fore feet are naked both above and below; but the hind feet are hairy above, and naked below. The internal edges of the under mandible (which is narrower than the upper) are serrated or channeled with numerous striæ, as in a duck's bill. The nostrils are small and round, and are situated about a quarter of an inch from the tip of the bill, and are about the eighth of an



*Beak & Feet of the PLATYPUS of their Natural size.*



inch distant from each other. There is no appearance of teeth: the palate is removed, but seems to have resembled that of a duck: the tongue also is wanting in the specimen. The ears or auditory foramina are placed about an inch beyond the eyes: they appear like a pair of oval holes of the eighth of an inch in diameter; there being no external ear. On the upper part of the head, on each side, a little beyond the beak, are situated two smallish oval white spots; in the lower part of each of which are imbedded the eyes, or at least the parts allotted to the animal for some kind of vision; for from the thickness of the fur and the smallness of the organs they seem to have been but obscurely calculated for distinct vision, and are probably like those of Moles, and some other animals of that tribe; or perhaps even subcutaneous; the whole apparent diameter of the cavity in which they were placed not exceeding the tenth of an inch.

When we consider the general form of this animal, and particularly its bill and webbed feet, we shall readily perceive that it must be a resident in watery situations; that it has the habits of digging or burrowing in the banks of rivers, or under ground; and that its food consists of aquatic plants and animals. This is all that can at present be reasonably guessed at: future observations, made in its native regions, will, it is hoped, afford us more ample information, and will make us fully acquainted with the natural history of an animal which differs so widely from all other quadrupeds,

and which verifies in a most striking manner the observation of Buffon, viz. that whatever was possible for Nature to produce, has actually been produced.

On a subject so extraordinary as the present, a degree of scepticism is not only pardonable, but laudable; and I ought perhaps to acknowledge that I almost doubt the testimony of my own eyes with respect to the structure of this animal's beak; yet must confess that I can perceive no appearance of any deceptive preparation; and the edges of the rictus, the insertion, &c. when tried by the test of maceration in water, so as to render every part completely moveable, seem perfectly natural; nor can the most accurate examination of expert anatomists discover any deception in this particular.

The Platypus is a native of Australasia or New Holland.



## TRICHECHUS. WALRUS.

*Generic Character.*

<i>Dentes Primores</i> (adulto) nulli utrinque.	<i>Fore-teeth</i> (in the full-grown animal) none either above or below.
<i>Laniarii superiores</i> solitarii.	<i>Tusks</i> solitary, in the upper jaw.
<i>Molares</i> ex osse rugoso utrin- que.	<i>Grinders</i> , with wrinkled sur- faces.
<i>Labia</i> geminata.	<i>Lips</i> doubled.
<i>Pedes posteriores</i> compedes coadunati in pinnam.	<i>Hind-feet</i> , at the extremity of the body, uniting into a fin.

**T**HE genus *Trichechus* is entirely marine, and contains but very few species : of these the principal is the *Trichechus Rosmarus*, or, as it is sometimes called, the Sea Horse, or Walrus.

## ARCTIC WALRUS.

Trichechus Rosmarus. *T. dentibus laniariis superioribus exsertis remotis.* *Lin. Syst. Nat. Gmel. p. 59.*

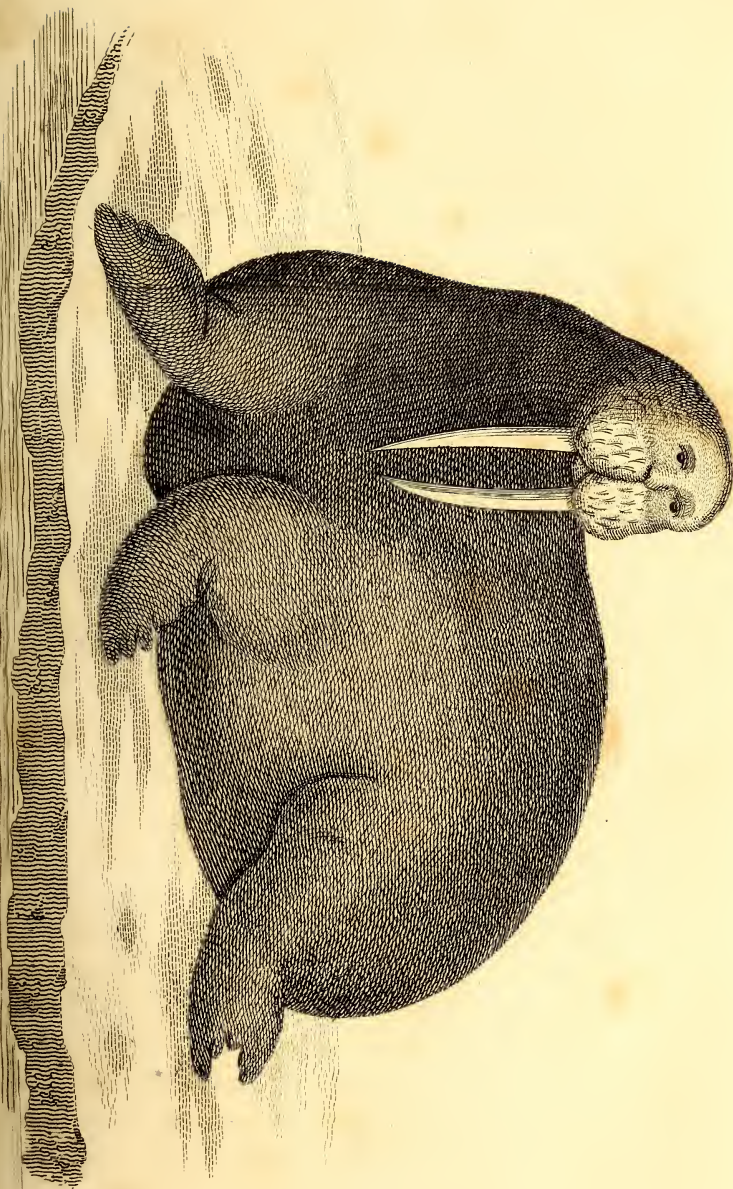
Trichechus with distant, exserted tusks.

Rosmarus. *Fonst. pisc. t. 44.*

Le Morse. *Buff. 13. p. 358. pl. 54.*

Arctic Walrus. *Pennant Quadr. 2. p. 266. Cook's last voy. vol. 2. p. 456. pl. 52. Naturalist's Miscellany, pl. 76.*

THIS animal inhabits the northern seas, and is principally found within the Arctic circle. It grows to a very large size, having been sometimes seen of the length of eighteen feet, and of such a thickness as to measure twelve feet round the middle of the body. The Walrus is of an inelegant form; having a small head, short neck, thick body, and short legs: the lips are very thick, and the upper lip is indented or cleft into two large rounded lobes: over the whole surface of this part are scattered numerous semitransparent bristles, of a yellowish tinge, and of such a thickness as almost to equal a straw in diameter: they are about three inches long, and are slightly pointed at their extremities: the eyes are small: instead of external ears there are only two small, round orifices: the skin on the whole animal is thick, and more or less wrinkled, and is scattered over with short brownish hair: on each foot are five toes, all connected by webs, and on each toe is a small nail: the hind feet are considerably broader than the fore feet: the tail is extremely short. In the upper jaw are two large and long





tusks, bending downwards: there are no cutting-teeth, but in each jaw, both above and below, are four roundish grinders with flat tops: the tusks are sometimes upwards of two feet in length, but are more generally of about one foot long; and it sometimes happens that the two tusks are not perfectly equal in length. The chief resorts of the Walrus are the seas about the northern parts of America. They are found in the gulph of St. Laurence, according to Mr. Pennant, between latitude 47 and 48, which seems to be the most southern latitude in any part of the globe. They are also found in Davis's Straits, and within Hudson's Bay, it lat. 62. They inhabit the coast of Greenland; and are found in great numbers about Spitsbergen, and on the floating ice in those parts. They occur likewise on the coasts of Nova Zembla, and on the head lands stretching towards the North Pole.

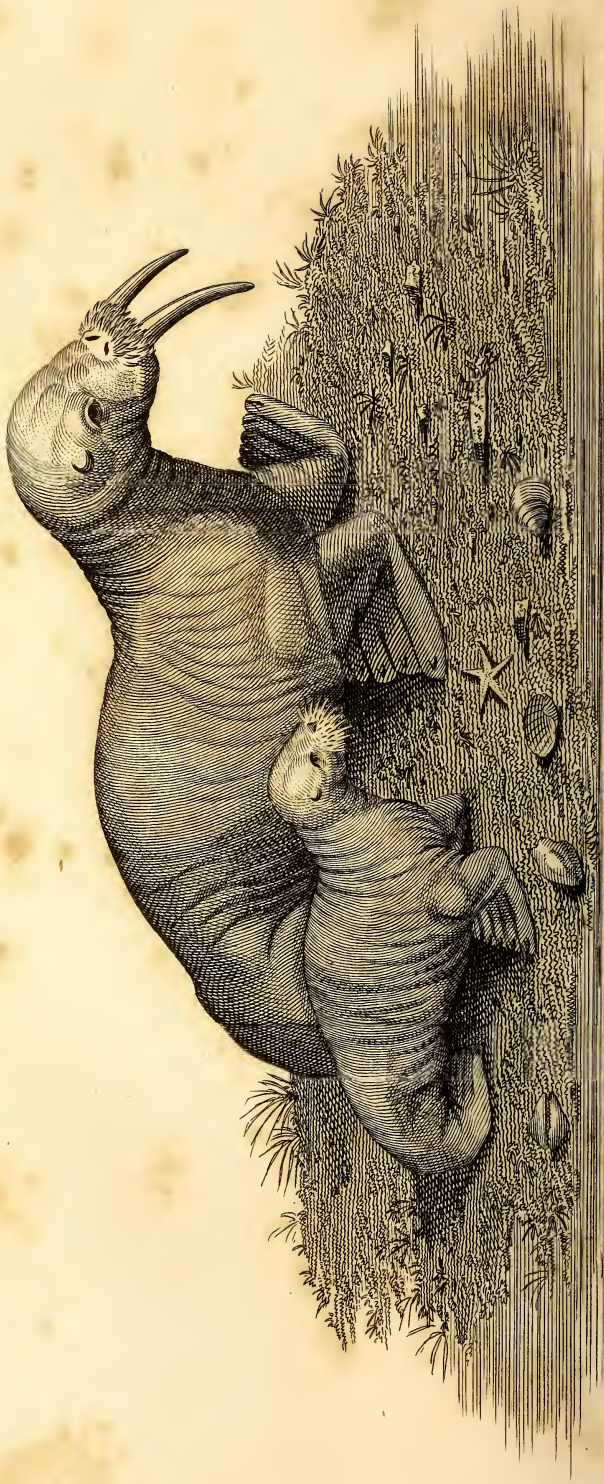
They are gregarious animals, and are sometimes seen in vast multitudes on the masses of floating ice so frequent in the northern seas. They are said to produce their young early in the spring; and rarely bring more than one at a birth: their food consists of sea plants, shell-fish, &c.

The Walrus is a harmless animal, unless provoked or attacked, in which case it becomes furious, and is extremely vindictive. When surprised upon the ice, the female is said first to provide for the safety of the young, by flinging it into the sea, and immediately precipitating itself

after it, carrying it to a secure distance, and then returning, with great rage, to revenge the injury. They will sometimes attempt to fasten their teeth on the boats, with an intent to sink them; or rise in numbers under them to upset them; at the same time shewing all the marks of rage, by roaring in a dreadful manner, and gnashing their teeth with great violence; if once thoroughly irritated, the whole herd will follow the boats till they lose sight of them. They are strongly attached to each other; and it is said that a wounded Walrus has been known to sink to the bottom, rise suddenly up again, and bring with it multitudes of others, which have united in an attack upon the boat from whence the insult came.

The Walrus has been tolerably well figured by Jonston, and this figure has been copied by succeeding writers. An excellent representation is also given in pl. 52. of the last voyage of our illustrious navigator, Captain Cook. It is easy, however, to perceive a remarkable difference between the tusks of this last, and those of the former kind figured in Jonston, and it clearly appears, that though this difference is not such as to justify our considering them as two distinct species, yet it obliges us to remark them as varieties; and it should seem, that, in the regions then visited by Captain Cook, viz. the icy coasts of the American continent, in lat. 70, the Walrus is found with tusks much longer, thinner, and far more sharp-pointed, in proportion, than the common Walrus; and they have a slight inclination





ARCTIC WALRUS, from Jonston.

*Madon. sculp*



to a subspiral twist: there is also a difference in the position of the tusks in the two animals; those of the variety figured in Captain Cook's voyage curving inwards in such a manner as nearly to meet at the points, while those of the former divaricate. These differences appear very striking on collating different heads of these animals. Something may, however, be allowed to the different stages of growth as well as to the difference of sex. In order that these differences may be the more clearly understood, we have figured both varieties on the annexed plates; and, as a farther illustration of the subject, we shall give, in the celebrated navigator's own words, the description of a herd of Walruses on a floating mass of ice in the above-mentioned latitude.

“ They lie, in herds of many hundreds, upon the ice; huddling one over the other like swine; and roar or bray very loud; so that in the night, or in foggy weather, they gave us notice of the vicinity of the ice, before we could see it. We never found the whole herd asleep, some being always upon the watch. These, on the approach of the boat, would wake those next to them; and the alarm being thus gradually communicated, the whole herd would be awake presently. But they were seldom in a hurry to get away, till after they had been once fired at. Then they would tumble one over the other into the sea in the utmost confusion. And if we did not, at the first discharge, kill those we fired at, we generally lost them, though mortally wounded. They did

not appear to us to be that dangerous animal some authors have described; not even when attacked. They are rather more so to appearance than in reality. Vast numbers of them would follow, and come close up to, the boats. But the flash of a musquet in the pan, or even the bare pointing of one at them, would send them down in an instant. The female will defend the young one to the very last, and at the expence of her own life, whether in the water or upon the ice. Nor will the young one quit the dam, though she be dead; so that if you kill one, you are sure of the other. The dam, when in the water, holds the young one between her fore fins.

“ Why they should be called sea-horses is hard to say; unless the word be a corruption of the Russian name Morse; for they have not the least resemblance of a horse. This is, without doubt, the same animal that is found in the Gulph of St. Laurence, and there called Sea-Cow. It is certainly more like a cow than a horse, but this likeness consists in nothing but the snout. In short, it is an animal like a seal, but incomparably larger.”

The teeth of the Walrus are used by way of ivory; but on this subject authors seem to vary considerably; some representing them as superior to common ivory, and others greatly inferior, and more subject to turn yellow. The animals are now killed chiefly for the sake of the oil; and it is said that a very strong and elastic leather may be prepared from the skin.

## INDIAN WALRUS.

*Trichechus Dugong. T. dentibus laniariis superioribus exsertis approximatis. Lin. Syst. Nat. Gmel. p. 60.*

Dugon. *Buff. 13. p. 374. pl. 56.*

Indian Walrus. *Pennant Quadr. 2. p. 369.*

THIS species is a native of the seas about the Cape of Good Hope and the Philippine islands. It does not, however, seem to be very clearly known to naturalists. The count de Buffon informs us, that he had seen the two heads of this species, which had in the upper jaw two tusks, not extending directly out of the mouth, as in the common Walrus, but much shorter, being not above half a foot long; more slender, and rather resembling large cutting-teeth than tusks; being situated very near each other in the fore part of the jaw. The grinders also differ from those of the Walrus, being broader in proportion; of these there are four on each side in the upper jaw, and three in the lower. The head is also said to be of a sharper or narrower form. This species, in the Philippine islands, is said to be called by the name of *Dugung*.

## WHALE-TAILED TRICHECHUS.

Trichechus Borealis. *T. nudus, cauda horizontali loco pedum posteriorum.*

Hairless Trichechus, with a horizontal tail in place of hind feet.

Trichechus borealis. *Var. B. T. Manati. Lin. Syst. Nat. Gmel. p. 61.*

Whale-tailed Manati. *Pennant Quadr. 2. p. 292.*

THIS animal seems to approach so nearly to the cetaceous or whale tribe, as scarce to deserve, according to Mr. Pennant, the name even of a biped; what are called the feet being little more than pectoral fins; which serve only for swimming, and are never used to assist the animal either in walking or landing; for it never goes ashore, nor ever attempts to climb the rocks like the Walrus and the Seal. It brings forth in the water, and, like the Whale, suckles its young in that element. Like the Whale it is also destitute of voice, and has also a horizontal tail, which is broad, and of the form of a crescent, without even the rudiments of hind feet.

So complete is the account given by Mr. Pennant of this animal, that we shall here deliver the most material parts of that author's description, rather than attempt a new one.

It inhabits the seas about *Berings* and the other *Aleutian* islands, which intervene between *Kamtschatka* and *America*, but never appears off *Kamtschatka*, unless blown ashore by a tempest. It is probably the same species which is found

above *Mindanao*\*, but is certainly that which inhabits near *Rodiguez*, vulgarly called *Diego Reys*, an island to the east of *Mauritius*, or the isle of *France*, near which it is likewise found. It is also probable that it extends to New Holland. They live perpetually in the water, and frequent the edges of the shores; and, in calm weather, swim in great droves near the mouths of rivers: in the time of flood they come so near the land that a person may stroke them with his hand: if hurt, they swim out to the sea, but presently return again. They live in families, one near another; each consists of a male, a female, a half-grown young one, and a very small one. The females oblige the young to swim before them, while the other old ones surround, and, as it were, guard them on all sides. The affection between the male and female is very great; for if she is attacked, he will defend her to the utmost, and if she is killed, will follow her corpse to the very shore, and swim for some days near the place it has been landed at.

They are vastly voracious, and feed not only on the fuci that grow in the sea, but such as are flung on the edges of the shore. When they are filled, they fall asleep on their backs. During their meals they are so intent on their food, that any one may go among them, and choose which he likes best. Their back and sides are generally above water; and numbers of gulls, from

\* Dampier, voy. I. p. 321.

time to time, perch on their backs, in order to pick the insects which they find upon them.

They continue in the Kamtschatkan and American seas the whole year; but in winter they are very lean, so that one may count their ribs. They are taken by harpoons fastened to a strong cord; and after they are struck, it requires the force of thirty men to draw them on shore. Sometimes, when they are transfixed, they will lay hold of the rocks with their paws, and stick so fast as to leave the skin behind before they can be forced off. When a Manati is struck, its companions swim to its assistance; some will attempt to overturn the boat, by getting under it; others will press down the rope, in order to break it; and others will strike at the harpoon with their tails, with a view of getting it out, which they often succeed in. They have no voice, but make a noise, by hard breathing, like the snorting of a horse.

They are of an enormous size: some are twenty-eight feet long, and eight thousand pounds weight: but, if the *Mindanao* species be the same with this, it decreases in size as it advances southward, for the largest which Dampier saw there weighed only six hundred pounds. The head, in proportion to the bulk of the animal, is small, oblong, and almost square: the nostrils are filled with short bristles: the gape or rictus is small: the lips are double: near the junction of the two jaws the mouth is full of white tubular bristles, which serve the same purpose as the laminae in Whales—to prevent the food from running out with the

water: the lips are also full of bristles, which serve instead of teeth to cut the strong roots of sea plants, which, floating ashore, are a sign of the vicinity of these animals. In the mouth are no teeth, only two flat, white bones, one in each jaw, one above, another below, with undulated surfaces, which serve instead of grinders.

The eyes are extremely small; not larger than those of a sheep: instead of ears are only two minute orifices, which will scarce permit a quill to enter: the tongue is pointed and small: the neck thick; and its junction with the head scarce distinguishable; and the last always hangs down.

The circumference of the body near the shoulders is twelve feet; about the belly twenty; near the tail only four feet eight inches: the head thirty-one inches: the neck near seven feet; and from these measurements may be collected the deformity of the animal. Near the shoulders are two feet, or rather fins, which are only two feet two inches long, and have neither fingers nor nails: beneath they are concave, and covered with hard bristles; the tail is thick, strong, and horizontal, ending in a stiff black fin, and like the substance of whalebone, being much split on the fore part, and slightly forked; but both ends are of equal length like the whale.

The skin is very thick, hard, and black; and full of inequalities like the bark of oak; and so hard as scarcely to be cut with an ax, and has no hair upon it: beneath the skin is a thick blubber, which is said to taste like oil of almonds. The

flesh is coarser than beef, and will not soon putrify: the young ones taste like veal: the skin is used for shoes, and for covering the sides of boats. The Russians call this animal *Morskaiia korowa* or Sea Cow, and *Kapustnik* or Eater of Herbs.

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ROUND-TAILED TRICHECHUS.

Trichechus Australis. *T. pilosus*; cauda horizontali loco pedum posteriorum.

Hairy Trichechus, with a horizontal tail in place of hind feet.

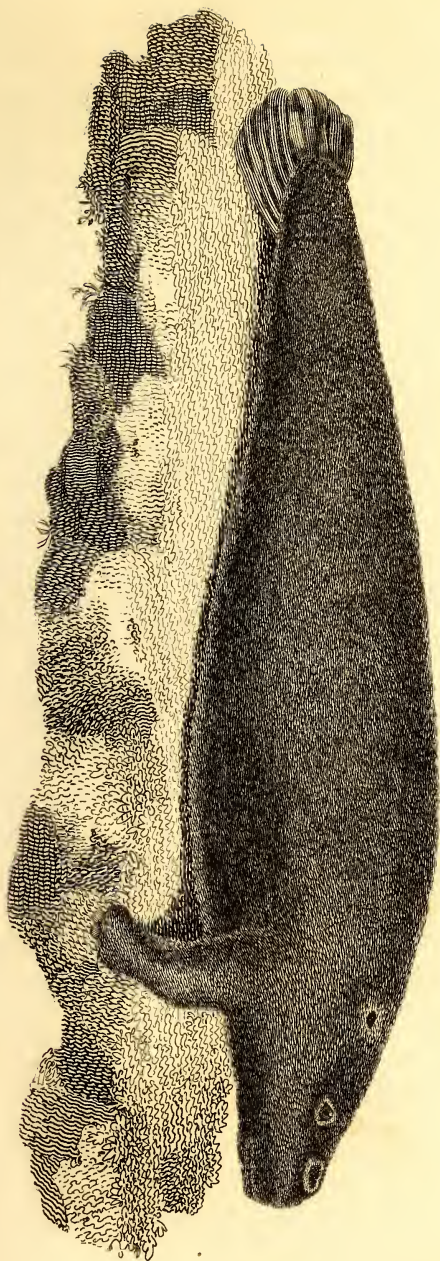
Trichechus Australis. *Var. and T. Manati. Lin. Syst. Nat. Gmel. p. 60.*

Round-tailed Manati. *Pennant Quadr. 2. p. 296.*

This species grows to the length of fourteen or fifteen feet, and is found in the rivers of Africa; particularly in the river Senegal. A complete specimen occurs in the Leverian Museum, and is about six feet and a half long, and about three feet eight inches in circumference in the thickest part of the body; and in the thinnest part or near the tail about two feet two inches.

In this species the lips are thick; the eyes as small as peas; and there are two very small orifices in the place of ears: in each jaw on each side are nine grinding teeth; in all thirty-six: the neck is short and thicker than the head: the greatest thickness of the body is about the shoulders, from whence it gradually tapers to the tail, which is horizontal, broad, thickest in the middle, growing thinner to the edges, and quite round. The





ROUND-TAILED TRICHECHUS.



feet are placed at the shoulders; and beneath the skin are bones for five complete toes, and externally are three or four nails, flat and rounded: near the base of each leg, in the female, is a small teat. The flesh of this animal is said to resemble veal: it is, however, chiefly killed by the negroes for the sake of the blubber or fat.

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GUIANA TRICHECHUS.

Trichechus Manatus. *T. subpilosus, dentibus lanariis nullis, cauda horizontali loco pedum posteriorum.*

Slightly hairy Trichechus, without tusks, and with a horizontal tail in place of hind feet.

Traichechus Manatus. *Lin. Syst. Nat. Gmel. p. 60.*

Guiana Manati. *Pennant Quadr. 2. p. 297.*

THIS is a native of Guiana, inhabiting the larger rivers as well as the sea, and grows to the length of sixteen or eighteen feet: the skin is of a dark brown, with scattered hairs on it. The head hangs downward: the feet have five toes: the body continues of nearly the same thickness almost to the tail, where it suddenly narrows: the tail is flat, and of the shape of a spatula; thickest in the middle, and thinner towards the edges.

## VAR.

*Trichechus Clusii.**Clusius's Manati.*

In Clusius's Exotics is given a figure and description of a Manati from the West Indies; but it is not easy to ascertain the species. Clusius says it had short nails and broad feet; and that the tail was broad and shapeless. The Count de Buffon, in his supplement, vol. 6. makes it a distinct species. Mr. Pennant suspects it to be the same with the Guiana species above described.

*Trichechus Amazonius.**Oronoko Manati. Pennant.*

This is an inhabitant of the South-American rivers, and is said to grow to an enormous size. We are told by Father Gumilla, that one was taken in a lake near the Oronoko, which was so large that twenty-seven men could not draw it out of the water. On cutting it open, two young ones were found in it, which weighed twenty-five pounds apiece. This species is said most to abound in the river Amazons and the neighbouring lakes. Sometimes, however, they are found in the sea, and near the mouths of rivers. As an article of food it is said to be superior to any other animal of this genus, particularly the young.

It is taken by means of harpoons. At the time when the waters of the Oronoque (which annually

overflow their banks) begin to return into the bed of the river, the Indians make dams across the mouths of the shallow lakes formed by the floods, and thus take great numbers of Manatis, as well as tortoises, fish, &c.

We must not here omit the curious history of a tame Manati, which, at the time of the arrival of the Spaniards, was kept by a prince of Hispaniola, in a lake adjoining to his residence. It was, on account of its gentle nature, called, in the language of the country, by the name of *Matum*. It would appear as soon as it was called by any of its familiars; for it hated the Spaniards, on account of an injury it had received from one of those adventurers. The fable of Arion was here realized. It would offer itself to the Indian favourites, and carry over the lake ten at a time, singing and playing on its back: one youth it was particularly enamoured with, which reminds me (says Mr. Pennant) of the classical parallel in the Dolphin of Hippo, so beautifully related by the younger Pliny. The fates of the two animals were very different: *Matum* escaped to its native waters by means of a violent flood: the Hipponesian fish fell a sacrifice to the poverty of the retired colonists\*.

*Trichechus? Hydropthecus.*

*Sea-Ape Manati. Pennant.*

This species is only known from the description of Steller, who, near the coast of America, saw a

\* Vide Pet. Martyr's Decades of the Indies, Dec. 3. book 8.

singular animal which he chose to name a Sea-Ape, and which Mr. Pennant supposes to belong to this genus. It was about five feet long, with a head like a dog's: the ears sharp and erect: the eyes large: on both lips a kind of beard: the form of the body was thick and round; thickest near the head, tapering to the tail, which was bifurcated, the upper lobe longest: the body covered with thick hair, grey on the back and red on the belly. Steller could not discover any feet or paws. It was full of frolick, and sported in the manner of a monkey; swimming sometimes on one side of the ship, and sometimes on the other; and looking at it with much seeming surprise. It would come so near the ship that it might be touched with a pole; but if any one stirred, it would immediately retire. It often raised one third of its body above the water, and stood upright for a considerable time; then suddenly darted under the ship, and appeared in the same attitude on the other side, and would repeat this for thirty times together. It would frequently bring up a sea-plant not unlike a bottle gourd, which it would toss about and catch again in its mouth, playing numberless fantastic tricks with it.

END OF PART I.

# GENERAL ZOOLOGY

or

## SYSTEMATIC NATURAL HISTORY

by

GEORGE SHAW, M.D. F.R.S.&c.

WITH PLATES

from the first Authorities and most select specimens

*Engraved principally by*

MR. HEATH.

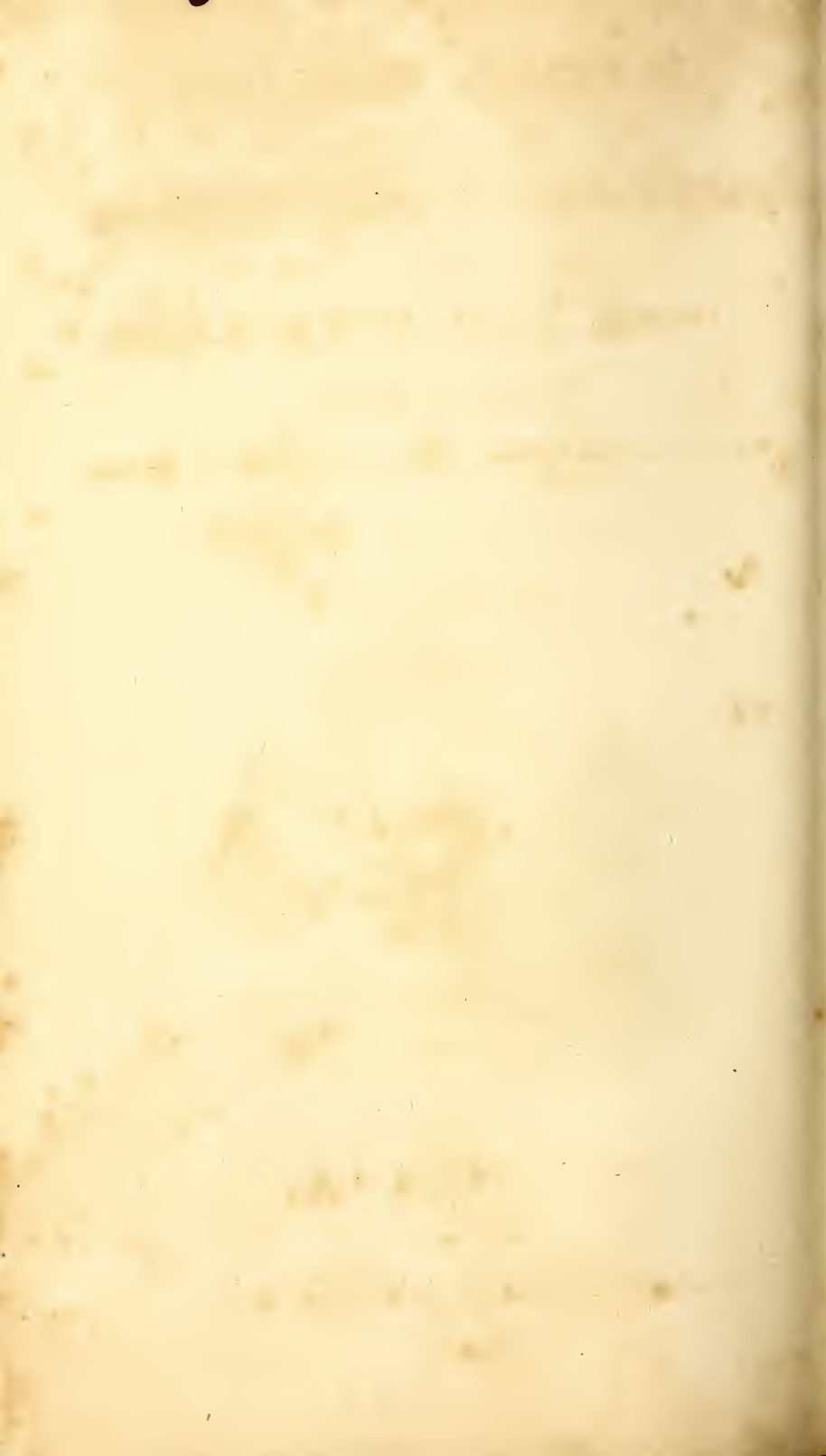


VOL. I. Part 2.

MAMMALIA.

London Printed for G. Kearsley, Fleet Street

1800.





# GENERAL ZOOLOGY.

VOLUME I.—PART II.

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*MAMMALIA.*

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1800.



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OF

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ERRATA.—PART II.

- Page 277, l. 1, for true genuine *read* true or genuine.  
 308, l. 20, for structures *read* structure.  
 497, l. 8, for floccy *read* flocky,  
 471, l. 14, for Viverræ *read* the Viverræ.  
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*Directions for placing the Plates in vol. I. part II.*



The Vignette to part II. represents the Long-tailed and Squirrel  
Opossum of New Holland.

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# QUADRUPEDS.

ORDER

F E R Æ.

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PHOCA. SEAL.

*Generic Character.*

<i>Dentes Primores superiores</i> sex, acuti, paralleli: exteriores majores.	<i>Fore-teeth</i> in the upper jaw six; pointed, parallel: the exterior larger.
<i>Inferiores</i> , quatuor, paralleli, distincti, æquales, obtusiusculi.	In the lower jaw four; bluntish, parallel, distinct, equal.
<i>Laniarii</i> solitarii, robusti, acuti; superiores ab incisioribus, inferiores a molariibus remoti.	<i>Canine-teeth</i> one on each side in both jaws, large, pointed: the upper ones distinct from the cutting-teeth; the lower from the grinders.
<i>Molares</i> quinque, v. sex, angusti, tricuspидati.	<i>Grinders</i> five on each side above, six below: obtusely tricuspидated.
<i>Pedes</i> postici coaliti.	

**T**HIS genus, like the preceding, is marine. It is, however, so constituted as to require occasionally some intervals of repose, and even a consider-

able degree of continuance, on dry land; forsaking, at particular periods, the water, and congregating in vast multitudes on the shores, on floating ice, or on insulated rocks; especially during the season in which the young are produced.

The most common species, or that which seems to have been known from the times of the most remote antiquity, is the *Phoca vitulina*, or Sea-Calf, as it is generally termed.

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COMMON SEAL.

*Phoca Vitulina. P. capite inauriculato et cervice lævi, corpore fusco.*

*Lin. Syst. Nat. Gmel. p. 63.*

Earless brown Seal, with smooth head and neck.

*Vitulus maris oceani. Rondel. pisc. p. 458.*

*Phoca seu vitulus marinus. Gesn. aquat. 702. Aldr. pisc. 722.*

Le Phoque. *Buff. 13. p. 333. pl. 45.*

Common Seal. *Pennant Quadr. 2. p. 270.*

The common Seal, or Sea-Calf.

This animal is a native of the European seas, and is found about all the coasts of the northern hemisphere, and even extends as far as the opposite one, being seen in vast quantities about the southern polar regions. We are informed by Mr. Pennant, that it also inhabits some fresh water lakes, as that of Baikal, Oron, &c. and that in these lakes it is considerably smaller, but much fatter than when found in the sea. The Count de Buffon imagines the Mediterranean Seal, a distinct species from this, to have been the *Phoca*



COMMON SEAL.



of the ancients; grounding his idea on the rougher and longer hair in that species, which he thinks must have been alluded to by Pliny, who speaks of a popular opinion that the hair of the Phoca, in the dried skin, always roughens or rises up at the time of the reflux of the sea, and which the Count de Buffon thinks could not have been imagined of the common or present species, on account of its short and close hair. Mr. Pennant, however, with much greater probability, supposes the present to be the ancient Phoca, since it agrees exactly with the description given by Aristotle, and which cannot be applied to the Mediterranean Seal.

The size of the Seal varies, but its general length seems to be from five to six feet. The head is large and round: the neck small and short: on each side the mouth are situated several strong vibrissæ or whiskers; each hair being marked throughout its whole length with numerous alternate contractions and dilatations. The parts about the shoulders and breast are very thick, and from thence the body tapers towards the tail. The eyes are large: there are no external ears: the tongue is bifid or cleft at the tip. The legs are so very short as to be scarcely perceptible; and the hinder ones are so placed as to be only of use to the animal in swimming, or but very little to assist it in walking; being situated at the extremity of the body, and close to each other. All the feet are strongly webbed, but the hind ones much more widely and conspicuously

than the fore. The toes on all the feet are five in number, and the claws are strong and sharp. The tail is very short. The whole animal is covered with short thick-set hair. In colour the Seal varies considerably, being sometimes grey, sometimes brown or blackish, and sometimes variously patched or spotted with white or yellowish. When these animals collect together in great numbers on the shore, they diffuse a very strong and disagreeable smell. This is a particularity observed by Homer, who represents Menelaus relating his adventure on the Isle of Pharos, where he was constrained to lie for a time among a flock of seals, disguised in the skin of one of these animals.

Seals may often be observed sleeping on the tops of rocks, near the coast; but when approached too near, they suddenly precipitate themselves into the water. Sometimes, however, their sleep is very profound, and it is even affirmed by some that the Seal sleeps more profoundly than most other quadrupeds. The structure of the Seal is so singular, that, as Buffon well observes, it was a kind of model, on which the imagination of the poets formed their Tritons, Sirens, and Sea-Gods, with a human head, the body of a quadruped, and the tail of a fish. The Seal is possessed of a considerable degree of intelligence, and may be tamed, so as to become perfectly familiar with those to whose care it is committed; and even to exhibit several tricks and gesticulations. Of this we have numerous examples. The female Seals

produce their young in the winter season, and seldom bring more than two at a birth. It is said that they suckle the young for about the space of a fortnight on the spot where they were born, after which they take them out to sea, and instruct them in swimming and seeking for their food, which consists not only of fish, but of seaweeds, &c. &c. When the young are fatigued, the parent is said to carry them on its back. The Seal is supposed to be a long-lived animal, and Buffon is even inclined to suppose that it may attain to the age of an hundred years. The voice of a full-grown Seal is a hoarse kind of sound, not unlike the barking of a dog: that of the young resembles the mewling of a kitten. They have, however, like most other quadrupeds, various inflexions of voice, according to the passions with which they are inspired. They are said to delight in thunder-storms, and at such periods to sit on the rocks and contemplate with seeming delight the convulsions of the elements; in this respect differing widely from the terrestrial quadrupeds, which are extremely terrified at such times. Seals are generally very fat, and are hunted in the northern regions for the sake of their oil, which forms a great article of commerce: their skins also are much used for various œconomical purposes.

## PIED SEAL.

Phoca Bicolor. *P. nigra inauriculata, albo varia, naso elongato, pedibus posterioribus lunatis.*

Earless black Seal, variegated with white, with elongated nose, and lunated hind feet.

Le Phoque à ventre blanc. *Buff. suppl. 6. p. 310. pl. 44.*

Pied Seal. *Pennant Quadr. 2. p. 273.*

THIS species, according to Mr. Pennant, differs from the former, in having the nose taper and lengthened; the fore feet furnished with five toes inclosed in a membrane, but very distinct: the claws long and strait: the hind feet very broad: five distinct toes, with the claws just extending to the margin of the membrane, which expands into the form of a crescent.

In the first or folio edition of the British Zoology, it is not considered as distinct from the common Seal, of which it was regarded as a mere variety; but in the third edition of the History of Quadrupeds it is described and figured under the title of the Pied Seal. It is also figured by the Count de Buffon in his sixth supplemental volume, and is there considered as a distinct species. The Count de Buffon observes, that it frequents the coasts of the Adriatic, growing to the length of seven feet and a half. In colour it varies, like the common Seal; Mr. Pennant's specimen being black, with white throat and neck; while that described by Buffon was black, with a white belly. It may be tamed like the common Seal, and is



then of a mild disposition, though ferocious when first taken. Mr. Pennant's figure seems to differ considerably from Buffon's, which latter has a much thicker neck, larger head, and shorter snout in proportion. It was particularly fond of eels and carp, with which it was fed during the time of its captivity, and which were first rolled in salt, in order to render them more agreeable to the animal.

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MEDITERRANEAN SEAL.

*Phoca Monachus. P. capite inauriculato, dentibus incisoribus utriusque maxillæ quatuor, palmis indivisis, plantis exunguiculis. Lin. Syst. Nat. Gmel. p. 64.*

*Hermann act. nat. scrutat. Berol. 4. p. 456. t. 12, 13.*

Earless Seal, with four cutting-teeth in each jaw, the fore feet undivided, the hinder pinniform and without claws.

Mediterranean Seal. *Pennant Quadr. p. 273.*

THIS species has obtained the name of Monachus, or cowled Seal, from the looseness or width of the skin behind the neck, which, when the animal is placed on its back, folds like a monk's cowl. It inhabits the Mediterranean Sea, growing to the length of more than eight feet. The head is small: the neck longer than that of the common Seal; the orifices of the ears not larger than a pea: the hair short and rude: the colour dusky, spotted with ash-colour: the toes on the fore feet have nails, but the hind feet resemble fins, and have no nails. This species seems to have been

first described with accuracy by Mr. Hermann, in the 4th volume of the Berlin Transactions.

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LONG-NECKED SEAL.

*Phoca Longicollis.* *P. inauriculata, collo elongato, pedibus anterioribus pinniformibus.*

Earless long-necked Seal, with the fore feet pinniform.

Long-necked Seal. *Pennant Quadr. 274. Grew mus. reg. soc. p. 95.*

WITH a slender body: length from nose to the fore legs as great as from them to the tail: no claws on the fore feet, which resemble fins. This species is mentioned by Grew in his Museum of the Royal Society, and is figured in the Philosophical Transactions. Its native place is uncertain.

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FALKLAND ISLE SEAL.

*Phoca Falklandica.* *P. cinerea, capite auriculato, dentibus incisori-  
bus sulcatis.*

Cinereous Seal, with small pointed ears, and the cutting-teeth marked with furrows.

Falkland Isle Seal. *Pennant Quadr. p. 275.*

THIS is found in the seas about Falkland isles, and is about four feet long, with short cinereous hair, tipped with dull white: the nose short, and beset with black bristles: ears short, narrow, and pointed: the upper cutting-teeth furrowed trans-

versly: the lower in an opposite direction: on each side of the canine teeth a lesser or secondary one: the grinders are conoid, with a small process on each side, near the base: the fore feet have no claws, but the bones of the toes, which are five in number, may be all felt beneath the skin or web, which extends a good way beyond their ends: the toes of the hind feet are four, with long and strait claws; the skin stretching far beyond them.

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TORTOISE-HEADED SEAL.

Phoca Testudinea. *P. capite testudineo, collo gracili.*

Seal with tortoise-shaped head, and slender neck.

Tortoise-headed Seal. *Pennant Quadr. p. 276.*

WITH head shaped like that of a Tortoise: neck slender: feet resembling those of the common Seal. This is described by Dr. Parsons, in the Philosophical Transactions, who informs us that it is found on several of the European coasts.

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RIBBON SEAL.

Phoca Fasciata. *P. nigricans, fascia dorsali subquadrata flavo.*

Blackish Seal, with a squarish dorsal yellow band.

Ribbon Seal. *Pennant Quadr. p. 276.*

THIS species, which is at present only known from a part of its skin described by the celebrated Dr. Pallas, is a native of the seas about the Kurile

islands. The hair is short, glossy, and bristly, and of an uniform blackish colour, but is marked on the upper part by a yellow ribbon-like band, so disposed as to represent, in some measure, the outline of a saddle, and leaving a large included space on the back. The head and legs were wanting in this skin; the middle part only having been seen by Dr. Pallas, so that the size of the animal is unknown; but it is concluded to be a very large species.

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LEPORINE SEAL.

*Phoca Leporina.* *P. vellere suberecto, molli, albido.*

Seal with white, soft, suberect fur.

Leporine Seal. *Pennant Quadr. p. 277.*

THIS species exceeds the length of six feet, and is a native of the seas about Iceland; being found from Spitsbergen to Tchutkinoss. In the summer months it is found in the white sea, ascending and descending rivers in quest of prey. Its fur is soft, like that of a hare, growing nearly upright, and is of a dull white-colour: the vibrissæ or whiskers are long and thick: there are four cutting-teeth above, and the same below, and nails both on the fore and hind feet.

## GREAT SEAL.

*Phoca Barbata. P. capite lævi inauriculato, corpore nigricante.*

*Lin. Syst. Nat. Gmel. p. 65.*

Earless blackish Seal, with smooth head.

Le grand Phoque. *Buff. 13. p. 345.*

Great Seal. *Pennant Quadr. p. 277.*

THIS is similar to the common Seal, but grows to the length of twelve feet; having been shot in the north of Scotland of that size. When so young as to have scarce any teeth it is upwards of seven feet long; whereas the common Seal is at its full growth when it has arrived at the length of six feet. It is a native of the northern seas. The skin, which is thick and strong, is said to be used by the Greenlanders for thongs for their Seal fishery. Mr. Pennant supposes this species to be the same with the *Great Kamtschatkan Seal*, called by the Russians *Lachtach*, which weighs eight hundred pounds, and whose young are of a black colour.

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 ROUGH SEAL.

*Phoca Hispida. P. capite lævi subauriculato, corpore pallide fusco pilis surrectis hispido. Lin. Syst. Nat. Gmel. p. 64.*

Pale-brown subauriculated Seal, with the head smooth, and the body covered with rising bristly hair.

Rough Seal. *Pennant Quadr. p. 278.*

THIS is of a pale brown colour, with rough bristly hair, and is a native of the seas about

Greenland, where the natives catch it for its skin, with which they make garments with the hairy side inwards. Mr. Pennant supposes this to be the species called the *Square Phipper* by the Newfoundland Seal-hunters, and which they describe by saying that its coat resembles that of a water-spaniel, and that the animal sometimes weighs five hundred pounds.



PORCINE SEAL.

Phoca Porcina. *P. capite auriculato, naso porcino, pedibus pentadactylis.*

Eared Seal, with hog-like snout, and five-toed feet.

Porcine Seal. *Pennant Quadr. p. 178.*

IN its general form this species resembles the *Ursine Seal*, but the nose is longer, and formed like that of a hog. It has also five distinct toes covered with a common membrane. It inhabits the coast of Chili, and is a rare species.



YELLOW SEAL.

Phoca Flavescens. *P. flavescens, capite auriculato.*

Yellowish Seal, with pointed ears.

Eared Seal. *Pennant Quadr. p. 278.*

THE eared Seal appears to be a rare species, and is smaller than most of the genus, not much exceeding the length of two feet from the nose to the tail; and from the same place to the ex-

tremity of the hind feet, about two feet and a half. Its colour is an uniform pale yellow, or deep cream-colour, without any variegation. The head is rather small, and the nose somewhat pointed: the ears are about an inch long, and are very narrow and pointed; and are somewhat leaf-shaped: the vibrissæ or whiskers long and whitish: the teeth are rather blunt than sharp, and the two middle incisores or front teeth of the lower jaw are slightly emarginated. The fore feet are piniform, and without any appearance of toes or claws, and in shape somewhat resemble the fore fins of a turtle: the hind feet are strongly webbed, and have long and very distinct claws, of which the three intermediate are much larger than the exterior ones: the tail is about an inch in length. This Seal is in the Leverian Museum, and is a native of the Magellanic Straits. It has never before been figured, except in the plate of the Magellanic Vulture or Condor, in the first number of the Museum Leverianum; but the figure there represented, being merely intended as an accompaniment to the scenery of the plate, is, of course, only calculated to convey a general resemblance of the animal.

## HOODED SEAL.

*Phoca Cristata.* *P. capite antice cristato, corpore griseo.* *Lin. Syst. Nat. Gmel. p. 64.*

Grey Seal, with a folding skinny crest on the forehead.

Hooded Seal. *Pennant Quadr. p. 279.*

THIS is distinguished by a strong folded skin on the forehead, which it can, at pleasure, fling over the eyes and nose, to defend them against stones and sand in stormy weather. Its hair is white, with a thick coat of black woolly hair beneath, which makes the animal appear of a fine grey. It inhabits only the south of Greenland and Newfoundland; and in the latter is called the Hooded Seal. The hunters affirm that they cannot kill it till they remove the hooded skin or covering of the head.

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HARP SEAL.

*Phoca Groenlandica.* *P. capite lævi inauriculato, corpore griseo, lateribus luna nigra.* *Lin. Syst. Nat. Gmel. p. 64.*

Earless grey Seal, with a black dorsal crescent, the horns pointing downwards along the sides.

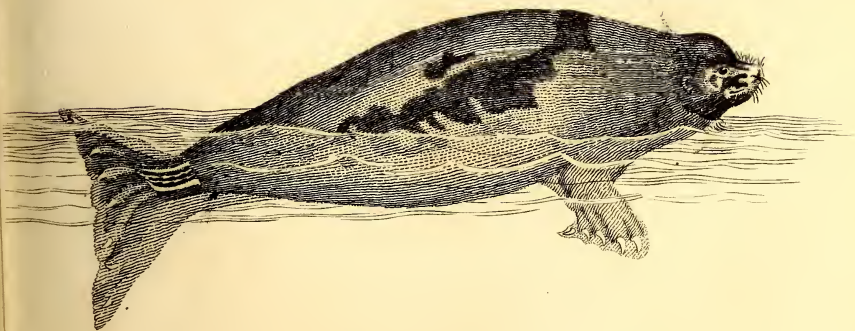
Harp Seal. *Pennant Quadr. p. 279.*

THE Harp Seal is of a clumsy and inelegant form; the head seeming to join the body without the appearance of any neck; the snout is rather pointed: the general colour of the animal is whitish or grey, with a very large and somewhat irre-



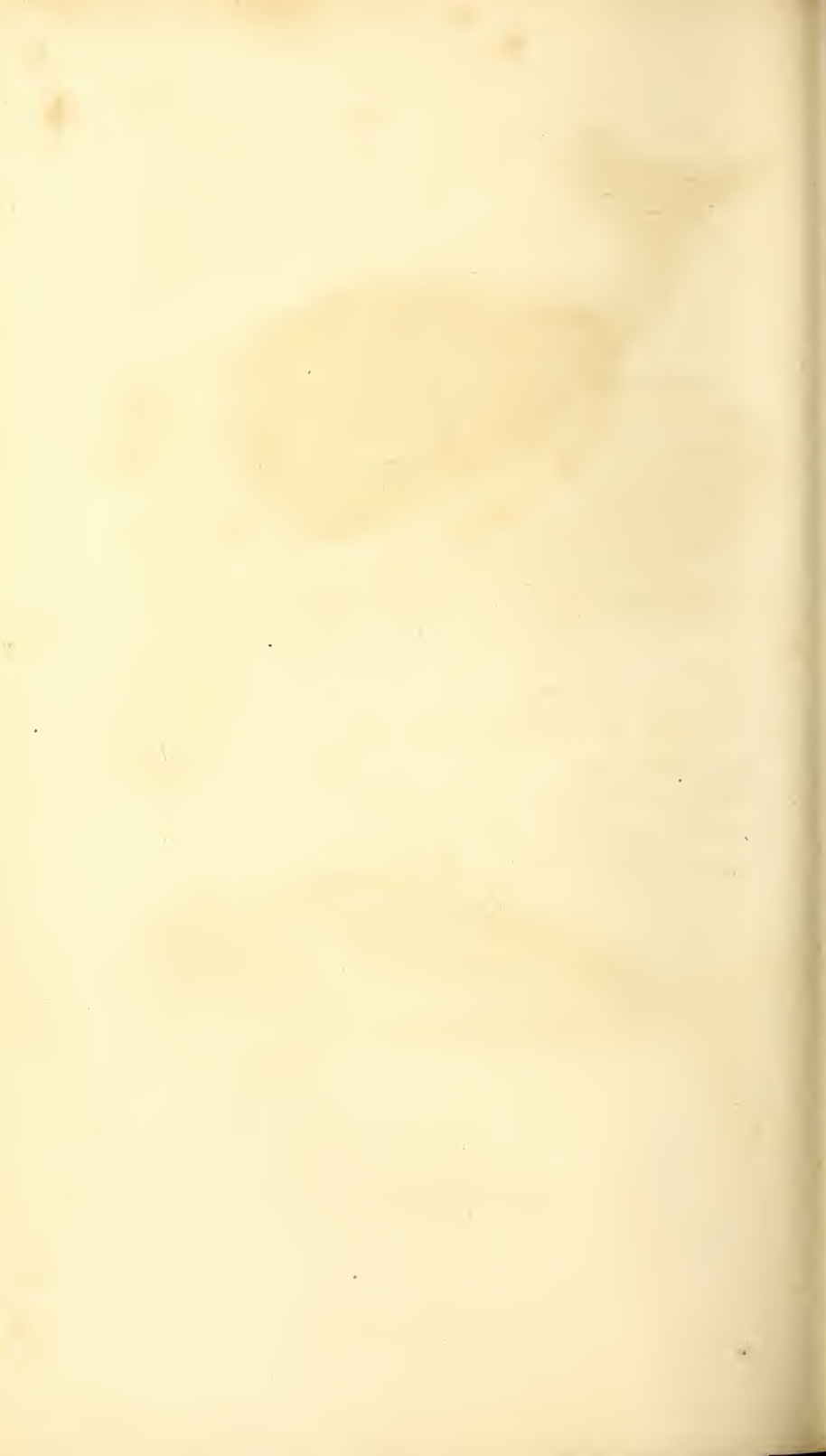


PIED SEAL . var.



HARP SEAL .

Head, sculp.



gularly defined black arch or crescent commencing at the upper part of the back; the two bows or horns proceeding obliquely downwards along each side towards the tail: the head also is black: it is said, however, that the black arch does not appear till the fifth year of the animal's age; and that the colour differs annually till that period, during which time the species is distinguished by the Greenlanders according to the respective variation of colour. There is also said to be a blackish variety.

The English Seal-hunters term this species the Harp Seal, or Heart Seal, and the black arch is called the saddle. It is a native of the seas about Greenland, Newfoundland, Iceland, the White Sea, &c. and, according to Mr. Pennant, passes through the Asiatic Straits, as low as Kamtschatka. It is reckoned the most valuable of all the Seals; the skin being the thickest and the best, and its produce of oil the greatest. It grows to the length of nine feet. In the Leverian Museum is a fine specimen of this animal.

## LITTLE SEAL.

Phoca Pusilla. *P. capite lævi subauriculato, corpore fusco.* Lin.  
*Syst. Nat. Gmel. p. 65.*

Subauriculated dusky Seal, with smooth head.

Le petit Phoque. *Buff. 13. p. 333. pl. 53.*

Little Seal. *Pennant Quadr. p. 280.*

IN this species the hair is said to be soft, smooth, and longer than in the Common Seal: the colour on the head and back dusky: beneath brownish: the length two feet four inches: the four middle cutting-teeth of the upper jaw are bifid: the two middle of the lower slightly trifid: the ears very small: the webs of the feet extend very far beyond the toes and nails. This animal is figured in Buffon's Natural History, under the title of *Le petit Phoque*, and the specimen is said to have been brought from India, but Mr. Pennant imagines this to be an erroneous idea, arising from some misinformation, since, from the authority of Dampier, as well as of modern voyagers to the East Indies, it should seem that no seals are observed in that ocean.





URSINE SEAL.

## URSINE SEAL.

*Phoca Ursina. P. nigricans, naso simo, capite auriculato, pedibus anterioribus pinniformibus.*

Eared blackish Seal, with flattish nose, and fore feet shaped like fins.

*Ursus marinus. Steller nov. act. Petrop. 2. p. 331. t. 15.*

Ursine Seal. *Pennant Quadr. p. 281.*

THIS is one of the larger seals, growing to the length of eight feet, and weighing eight hundred pounds. The female falls far short of the size and weight of the male. The body of this species is of a very thick form, somewhat conical or decreasing towards the tail: the greatest circumference is about five feet, and near the tail about twenty inches: the nose projects like that of a pug dog, but the head rises suddenly: the nostrils are oval, and divided by a septum: the lips thick: their inside red and serrated: the whiskers long and white: the teeth lock into each other when the mouth is closed: in the upper jaw are four cutting-teeth, each bifurcated: on both sides is a small sharp canine-tooth, bending inwards: near that another larger: the grinders resemble canine-teeth, and are six in number in each jaw: in the lower jaw are also four cutting-teeth and two canine, but only four grinders in each jaw: in all thirty-six teeth: tongue bifid: eyes large and prominent: iris black: pupil emerald-green. The eyes are furnished with a fleshy membrane with which they may occasionally be covered: the ears are small and sharp-pointed; hairy with-

out, but smooth and polished within. The length of the fore legs is about twenty-four inches, and they are less immersed in the body than those of other Seals: the feet are formed with toes, but are covered with a naked skin, and have merely the rudiments of nails, so that their general shape approaches to that of the fore feet of the small yellow or eared Seal, before described, giving them the appearance of a turtle's fin: the hind legs are twenty-two inches long, and are fixed to the body behind, but are capable of being brought quite forwards occasionally, so that the animal can rub its head with them: these feet are divided into five toes, separated by a large web, and are a foot broad: the tail is only two inches long. The hair is long and rough, and beneath it is a soft down of a bay colour: on the neck of the male the hair is upright, and a little longer than the rest. The general colour of the animal is black, but the hair of the old ones is tipped with grey; and the females are cinereous. The flesh of the females and the young is said to resemble lamb, and the young are said to be as good as sucking pigs.

The manners of this species are so well described by Mr. Pennant, from Steller and others who have had opportunities of contemplating them in their native regions, that it is impossible to wish for more ample information. They live in families; each male has from eight to fifty females, whom he guards with the jealousy of an Eastern monarch. Though they lie by thousands on the shore, each family keeps itself separate from the



rest, and is sometimes so numerous as to amount to above an hundred. The old animals which have been deserted by the females, are said to live apart, and are most excessively splenetic and quarrelsome. They are extremely fierce, and enormously fat. It sometimes happens that they approach or intrude upon each other's station, in which case a battle ensues between the two individuals; and they, in the conflict, disturb the repose of some of their neighbours, till in the end the discord becomes universal, and is in a manner spread through the whole shore. Exclusive of the contests between these solitary males, similar disagreements take place between those who live in a more social state; either from invading each others seats, endeavouring to allure the females, or interfering in the disputes of their neighbours. These conflicts are very violent, and the wounds they receive are very deep, and resemble the cuts of a sabre. At the end of the fray they fling themselves into the sea to wash away the blood. They shew a great attachment to their young, and shew all the signs of the deepest concern on losing them.

The Ursine Seal is an inhabitant of the islands in the neighbourhood of Kamstchatka. In these islands they are seen from June to September, during which time they breed and educate their young. In September they are said to quit their stations, and to return, some to the Asiatic, and some to the American shore; but are generally confined to a space in those seas between lat. 50

and 56. They swim very swiftly, at the rate of seven miles an hour, and are very fierce and strong. They are said to be very tenacious of life, and to live a fortnight after receiving such wounds as would immediately destroy almost any other animal.

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BOTTLE-NOSED SEAL.

Phoca Leonina. *P. capite antice cristato, corpore fusco.* Lin. Syst. Nat. Gmel. p. 63.

Brown Seal, with the snout of the male furnished with a projecting crest or inflated membrane.

Sea-Lion. *Anson's voy. p. 122.*

Bottle-nosed Seal. *Pennant Quadr. 2. p. 286.*

THIS species (in the male) is distinguished by its projecting snout, which hangs several inches over the lower jaw; the upper part consisting of a loose wrinkled skin, which the animal, when angry, has a power of inflating, so as to give the nose an arched or hooked appearance. It is a very large species, the male measuring twenty, and the female about eighteen feet in length. The feet are short: the hinder ones webbed in such a manner as to resemble a kind of fins: the eyes are large: the vibrissæ or whiskers are also large and long: the general colour of the animal is a deep cream or dun, or rather a rust-colour: in the female the nose is blunt and tuberous at the top: the nostrils wide: the mouth rather small: in the upper jaw are four cutting-teeth,



YELLOW SEAL.

*from the American Museum.*



the two exterior of which are much larger than the two middle ones: there are also two very large but rather blunt canine-teeth, remote from the cutting-teeth: and on each side are five small conical grinders or molares. In the lower jaw are only two very small cutting-teeth; two large canini like them in the upper jaw, and five grinders on each side. The cutting-teeth themselves resemble the shape of the canini in miniature. In the British Museum is a tolerably well preserved skin of a female, which formerly belonged to the Museum of the Royal Society. This species inhabits the seas about New Zealand, the island of Juan Fernandez; and the Falkland islands. In Juan Fernandez, during the breeding season, viz. in June and July, they are seen in great numbers suckling their young on the shore: they bring two young at a birth: the females are observed to be excessively fierce during the time of rearing the young: towards evening both the male and female swim out a little way to sea, the female bearing the young on her back, which it is said the male frequently pushes off, in order to oblige them to exercise their swimming powers. On the arrival of these animals on the breeding-islands, they are said to be so excessively fat as to resemble skins of oil; the tremulous motion of the blubber being plainly perceivable beneath the skin. A single animal has been known to yield a butt of oil, and to be so full of blood that what has run out has filled two hogsheads. The flesh is eatable. Lord Anson's sailors eat it under the

denomination of beef, to distinguish it from that of the Seal, which they termed lamb.

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LEONINE SEAL.

*Phoca Jubata.* *P. cervice (maris) jubata.* *Lin. Syst. Nat. Gmel.*  
p. 63.

Reddish-brown Seal, with a large mane round the neck of the male.

*Leo marinus.* *Steller nov. act. Petrop. 2. p. 360.*

Sea-Lion. *Cook's voy. 2. 203.* *Forster's voy. 2. 513.*

Leonine Seal. *Pennant Quadr. 2. p. 288.*

THIS is so termed from the large and loose mane or floating hair with which the head and neck of the male is furnished. The nose is short and turns up a little: the eyes are large: the whiskers very large and strong: the hair on the whole body is smooth, short, and glossy: its colour is a deep brown; but those of this species which are found on Kamtschatka are said to be reddish, and the females tawny. The males are far larger than females, and grow from the length of from ten to fourteen feet: the females are from six to eight feet, and of a more slender form than the males. The weight of a full-grown male is from twelve to fifteen hundred pounds. A still greater size has been ascribed to those of Falkland isles, viz. that of twenty-five feet in length, and nineteen or twenty feet round the shoulders.

These animals, according to Mr. Pennant, inhabit, in vast numbers, the islands called Penguin

LEONINE SEAL.







and Seal islands, near Cape Desire, on the coast of Patagonia; and are found within the Magellanic Straits, and on Falkland islands, but have not been discovered in any other part of the southern hemisphere, or in any other place nearer than the sea between Kamtschatka and America. They live in families distinct from the Ursine and other Seals; their manners, however, are nearly the same: they are polygamous, each male being accompanied by from two to thirty females. The males utter a snorting sound, and occasionally roar like bulls: the voice of the females resembles that of calves, and the young bleat like lambs, the food of the Leonine Seal consists of the smaller kinds of penguins, fish, seals, &c. but during the breeding season they are said to fast for three or four months, during which time they swallow a number of large stones, in order to keep their stomachs in a distended state.

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 URIGNE SEAL.

*Phoca Lupina. P. (inauriculata?) capite canino, pedibus anterioribus pinniformibus.*

Earless Seal with dog-like head, and fore feet shaped like fins.

Urigne Seal. *Pennant Quadr. p. 290.*

THIS is a smaller species than the former, being found from about three to eight feet in length. The body is thick at the shoulders, and gradually lessens to the hind legs. The head resembles that of a dog, with close cut ears: the nose is

short and blunt: in the mouth are six cutting-teeth above, and four below: the fore feet have four toes inclosed in a membranaceous sheath, so as to resemble fins; and the hind feet are hid in a continuation of the skin of the back, and have five toes of unequal length like the fingers of the human hand: the tail is three inches long: the skin is covered with two sorts of hair; one like that of an ox, the other harder: the colours are various. These animals are the *Sea Wolves* mentioned by navigators off the island of Lobos, near the River Plata. They are said to appear there in vast multitudes, and to meet the ships, and even to hang at the ship's side by their paws, seeming to stare at and admire the crew: then drop off and return to their former haunts. The natives of Chili kill them for the sake of their oil.

In enumerating the species of Seals, we have chiefly followed Mr. Pennant; but it may perhaps be doubted whether some of these animals may not rather be considered as varieties than as truly distinct species.

## COMMON DOG.

*Generic Character.*

<i>Dentes Primores superiores</i> sex; laterales longiores, distantes; intermedii lobati.		<i>Cutting-teeth</i> in the upper jaw six; the lateral ones longer, distant; the intermediate ones lobated.
<i>Inferiores</i> sex; laterales lobati.		In the lower jaw six; the lateral ones lobated.
<i>Laniarii solitarii</i> , incurvati.		<i>Canine-teeth</i> solitary, incurvated.
<i>Molares</i> sex vel septem (pluresve quam in reliquis).		<i>Grinders</i> six or seven (or more than in other genera of this order).

## COMMON DOG.

*Canis Familiaris.* *C. cauda sinistrorsum recurvata.* *Lin. Syst. Nat. p. 56.*

Dog with recurved tail turned towards the left.

*Canis. Gesn. Quadr. 91. Aldr. dig. 482. Johnst. Quadr. 122. Ray. Quadr. 176.*

**T**HE Dog, that most faithful and valuable domestic, is one of those animals which have so long been taken under the peculiar protection of mankind, that the real origin of the species re-

mains in a state of uncertainty; wild dogs appear to be found in great troops in Congo, lower Æthiopia, and towards the Cape of Good Hope. They are said to be red-haired, with slender bodies and turned-up tails, like greyhounds. It is also added, that they vary in colour, have upright ears, and are of the general size of a large fox-hound. They destroy cattle, and hunt down antelopes, and many other animals, and commit great ravages among the sheep of the Hottentots. They are very seldom to be taken, being extremely swift as well as fierce. The young are said to be sometimes obtained, but grow so fierce as to be very difficultly rendered domestic.

It is not, however, allowed by modern naturalists, that these wild dogs constitute the true or real species in a state of nature, but that they are rather the descendants of dogs once domesticated, and which have relapsed into a state resembling that of primitive wildness; and a theory has for some time prevailed, that the Wolf is in reality the stock or original from which the Dog has proceeded. The Count de Buffon, however, in the earlier part of his writings, maintains a contrary opinion.

“The Wolf and the Dog (says Buffon) have never been regarded as the same species but by the nomenclators of natural history, who, being acquainted with the surface of nature only, never extend their views beyond their own methods, which are always deceitful, and often erroneous even in the most obvious facts. The Wolf and

Dog (adds this author) cannot breed together, and produce an intermediate race: their dispositions are opposite, and their constitutions different: the Wolf also lives longer than the Dog; the former breeds but once a year, but the dog twice or thrice. These distinctions are more than sufficient to demonstrate the two animals to be of very different kinds. Besides, on a closer inspection, we easily perceive that even externally the Wolf differs from the dog by essential and uniform characters. The appearance of the head and the form of the bones are by no means the same. The cavity of the eye in the Wolf is placed obliquely; the orbits are inclined; the eyes sparkle and shine in the dark: instead of barking the Wolf howls; his movements, though quick and precipitate, are more uniform and equal: his body is stronger, but not so flexible: his limbs are firmer, his jaws and teeth larger, and his hair coarser and thicker." All this, however, was said long before the celebrated experiments had been made, which have clearly proved that a hybrid offspring may be obtained from the Dog and the Wolf, and that the breed may be continued between the hybrids themselves, or with other Dogs. In his supplemental volumes the Count de Buffon himself has amply detailed some experiments of this kind, and has given engravings of the descendants. But though the Wolf and the Dog may thus breed together, and their progeny may also prove fertile, yet this can hardly be allowed a sufficient proof of a real identity of species. The

same circumstance has been known to take place between the Horse and the Ass; the Mules of which have sometimes proved fertile; and the same may be said of the Goldfinch and the Canary-bird; but surely we are not justified in supposing the species to be the same. We can only conclude from such experiments, that animals of species extremely nearly allied to each other, though really different, may sometimes intermix, and produce a fertile progeny; but the genuine species still remains intempered. If, however, the origin of the Dog must be traced to some other animal, the Jackall perhaps seems a more probable origin than the Wolf.

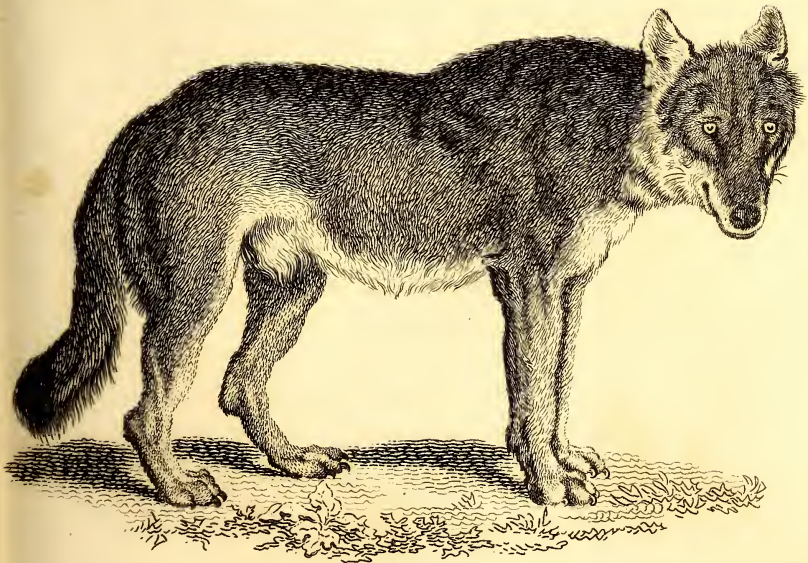
It is generally believed that the Dog was unknown in America on the arrival of the Europeans\*.

Dogs, indeed, in a wild state, are said to be frequently found in South America, but these are supposed to be the descendants of such as were introduced by the Europeans on the first discovery of America. When taken young they are said to be readily tamed, and to acquire the habits of the domestic Dog. They resemble Greyhounds in appearance. Linnæus observes, that the American dog does not bark; but this relates to the wild dogs of North America only; which, it is contended, derive their origin from the Wolf, and which, instead of barking, utter only a kind

\* Yet the Peruvians had, according to Acosta, a little animal like a dog, of which they were very fond, and kept by way of a lap-dog.



SHEPHERD'S DOG.



WOLF.





of howl; and are greatly inferior to the true genuine Dog.

In Australasia, or New Holland, the Dog is known by the name of Dingo, and is an animal of uncommon strength and fierceness.

The dog is unquestionably subject to greater variety than any other animal, and it is no easy task to ascertain all the different breeds.

That which is supposed by naturalists to approach most nearly to the original animal is known by the name of the Shepherds' Dog.—(Canis domesticus. *Lin.*) This is distinguished by its upright ears, and tail remarkably villose beneath. In the Alpine regions, as well as in some other parts of Europe, this Dog is much larger and stronger than in England. Its principal use is as a guard to the flock, which it prevents from straggling, and defends from all attacks. In Mr. Bewick's work on Quadrupeds, the variety figured as the Shepherds' Dog is said to have always one, and sometimes two toes more than other Dogs; these toes appear to be destitute of muscles, and hang dangling at the hind part of the leg like an apparently unnecessary excrescence. This particularity, however, is not mentioned in Buffon's description of that animal, nor does it make any part of the Linnæan characteristic of this variety: the race described by Mr. Bewick is said to prevail most in the north of England, and in Scotland. In a pointer, it is well known, a similar particularity generally takes place.

The *Dingo, Australasian, or New Holland Dog,*

approaches in appearance to the largest kind of Shepherds' Dog. The ears are short and erect: the tail rather bushy: the hair, which is of a reddish dun-colour, is long, thick, and strait. This Dog is capable of barking, though not so readily as the European Dogs: it is extremely fierce, and has the same sort of snarling and howling voice as the larger dogs in general. By some it has been erroneously said neither to bark nor growl. Those which have been brought over to Europe were of a savage and untractable disposition.

The *Pomeranian Dog* (*Canis Pomeranius. Lin. Gmel.*) is distinguished by upright ears, long hair on the head, and an extremely curved tail, so as to form almost a circle. This Dog is generally of a white colour.

The *Siberian Dog* (*Canis Sibiricus. Lin. Gmel.*) is nearly allied to the preceding, and may be subdivided into several races, differing as to strength and size. The Siberian Dogs are principally used in that country and in Kamtschatka for drawing sledges over the frozen snow in winter. Four, or six, or more, according to circumstances, are commonly yoked to the sledge, and will readily carry three persons with their baggage, and thus perform a journey of fifty or even sixty English miles in a day. Their fidelity, however, is not highly praised, and their malignity sometimes renders it necessary for the master to be on his guard against their stratagems. In Kamtschatka in particular, the treatment which the dogs receive is said to be such as seems but ill calculated



AUSTRALASIAN DOG, OR DINGOO.



for securing their attachment. They are fed sparingly with putrid fish during the winter, and in summer are turned loose to shift for themselves, till the return of the severe season makes it necessary for their masters to take them again into custody, and remand them to their severe state of toil and slavery. Like the spirits of Prospero, they seem to obey their master with no good will, but to "hate him rootedly." When yoking to the sledge, they set up a dismal yell, which ceases on beginning the journey, and then gives place to silent subtlety, and a perpetual endeavour to weary out the patience of the driver by wayward tricks and contrivances. With all their faults, however, they are considered as constituting one of the great conveniences of life by the inhabitants of the frozen region of Kamtschatka.

*Iceland Dog.*—(*Canis Islandicus. Lin. Gmel.*) This seems to differ but slightly from the preceding kind. It has a shortish muzzle, upright ears, with flaccid tips, and is covered with long roughish hair. Its general colour is blackish: the breast, legs, and tip of the tail, often white.

*Water Dog.*—(*Canis aquaticus. Lin. Gmel.*) This is the *Canis aquaticus aviarius* of Gesner, and is distinguished by its curly hair, like wool. It is remarkable for its great attachment to the water, swims with great ease, and is used in hunting ducks, and other aquatic birds. Its feet are commonly said to approach more to a webbed form than those of most other dogs.

The *Great Water Spaniel* is also distinguished in a similar manner by its curled hair, and its propensity to the water. There is a smaller variety of the Water Dog, called the *Little Barbet*, which, in general appearance, extremely resembles the larger.

*Newfoundland Dog*.—This variety is of a very large size; and, from its strength and docility, is one of those which are best calculated for the security of a house: the feet in this dog are more palmated than usual, and the animal is remarkably fond of plunging into the water.

*King Charles's Dog*.—This is one of the most elegant varieties of the Dog, and it is recorded that King Charles the Second hardly ever walked out without being attended by some of this breed. It is in some degree allied to the small Water Spaniel, and is generally black, with the roof of the mouth of the same colour. It is the *Gredin* of Buffon, and the *Canis brevipilis* Lin. Gmel. The Dog called by Buffon the *Pyrame* is one of its varieties, and is distinguished by a patch of red on the legs and over each eye.

*Maltese Dog*—(*Canis Melitæus*. Lin. Gmel.) This is a very small kind of spaniel, generally of a white colour, and is one of the most elegant of the lap-dog tribe. In some of its varieties the hair is extremely long, as in the *Skock* and the *Lion-Dog*.

*Hound*.—(*Canis Sagax*. Lin. Gmel.) This admits of some varieties. The old English Hound is distinguished by its great size and strength; its

body long; its chest deep; the ears long and sweeping; and the tone of its voice peculiarly deep and mellow. Its power of smelling is exquisite, and it is said to be able to distinguish the scent an hour after the lighter beagles have given it up. These dogs are said to have been once very common in every part of England; and to have been much larger than at present; the breed having, as it should seem, been gradually suffered to decline, and its size to diminish by the mixture of other lighter kinds, in order to increase its speed, so that the race is supposed to be almost extinct. This (says Mr. Bewick) seems to have been the kind so accurately described by Shakspear.

“ My Hounds are bred out of the Spartan kind,  
 So flewed, so sanded, and their heads are hung  
 With ears that sweep away the morning dew;  
 Crook-knee'd and dewlap'd, like Thessalian bulls;  
 Slow in pursuit; but matched in mouth like bells,  
 Each under each.”

The Hound, like some other dogs, has commonly a spurious toe on the hind feet.

*Blood Hound.*—This is a very large Dog, taller and more beautifully formed than the old English Hound, and superior to most others in speed, strength, and sagacity. The Blood-hound was in much esteem with our ancestors, for the pursuit of robbers, &c. It was mostly of a reddish or brown colour. “ A person of quality (says Mr. Boyle), to make a trial whether a young Blood-hound was well instructed, caused one of his servants to walk to a town four miles off, and then to

a market-town three miles from thence. The Dog, without seeing the man he was to pursue, followed him by the scent to the abovementioned places, notwithstanding the multitude of market-people that went along the same way, and of travellers that had occasion to cross it. And when the Blood-hound came to the chief market-town, he passed through the streets, without taking notice of any of the people there, and left not till he had gone to the house, where the man he sought rested himself, and found him in an upper room, to the wonder of those that followed him."

*Pointer.*—This Dog is employed principally in finding partridges and other game. The Large Pointer, commonly termed the Spanish Pointer, is supposed to distinguish itself by a greater degree of docility than the English Pointer, but is not able to undergo the fatigues of the field so well.

*Dalmatian or Spotted Dog.*—This is an animal of great beauty. Its native country seems uncertain. It is frequently termed the Danish Dog, and the Count de Buffon calls it *Le Braque de Bengal*. Mr. Pennant, however, informs us that Dalmatia is the country of this elegant Dog. It is white, and beautifully marked on all parts with numerous round black spots.

*Irish Greyhound.*—This is supposed to be the largest of all the Dog kind, as well as the most beautiful and majestic in its appearance. It is only to be found in Ireland, and even there is become extremely rare. It is said by Mr. Bewick







to be kept rather for shew than use, being equally unserviceable for hunting either the stag, hare, or fox. Its ancient use was that of clearing the country from wolves. In the 3d volume of the Transactions of the Linnæan Society we find an account of a Dog of this kind, by A. B. Lambert, Esq. who informs us that the breed is now become nearly extinct in Ireland, those in the possession of the Earl of Altamont (eight in number) being the only ones in the country. The specimen described by Mr. Lambert measured sixty one inches from the nose to the tip of the tail; but they were formerly of a much larger size, and in shape more resembling a Greyhound. Dr. Goldsmith assures us that the largest of those which he saw (and he adds that he had seen a dozen) was about four feet high, or as tall as a calf of a year old.

*Common Greyhound.*—(Canis Grajus. *Lin. Gmel.*) This well-known Dog is remarkable for the slenderness of its shape, the length of its snout, and the extreme swiftness of its course. It was formerly held in high estimation in England, and Mr. Pennant informs us, that by the forest laws of King Canute it was enacted, that no one under the degree of a gentleman should presume to keep a Greyhound. The Greyhound wants the faculty of quick scent, and follows his prey merely by the eye.

*Italian Greyhound.*—This is a small and beautiful variety of the former.

*Naked Dog.*—This singular and displeasing va-

riety is naturally divested of hair, and is supposed to have originated in some very warm climate. It is called by Buffon *Le Chien Turc*.

*Mastiff*.—The Mastiff is of a very strong and thick form, with a large head, a bold countenance, and large lips hanging down on each side. Dr. Caius, who lived in the reign of Elizabeth, and who described the several varieties of English Dogs, tells us, that three Mastiffs were reckoned a match for a Bear, and four for a Lion; but from an experiment made in the Tower in the reign of James the First, a lion was found an unequal match to only three. Two of the Dogs were disabled by the combat, but the third forced the Lion to seek for safety by flight.

*Bull Dog*.—This is a kind of Mastiff on a smaller scale; with a somewhat flatter snout, and a greater ferocity of aspect. The Bull Dog is remarkable for the undaunted and savage pertinacity with which it provokes and continues the fight, and, when it has fixed its bite, is with extreme difficulty disengaged from its antagonist. It is the Dog employed in the barbarous diversion of bull-baiting.

*Pug Dog*.—This is a small and innocent resemblance of the former, and is in some countries considered as a kind of lap-dog. This, according to Mrs. Piozzi, is the case at Padua.

*Terrier*.—The Terrier (says Mr. Bewick) is generally an attendant on every pack of hounds, and is very expert in forcing foxes or other game out of their coverts. It is the determined enemy

o fall the vermin kind; such as weasels, founarts, badgers, rats, mice, &c. It is fierce, keen, and hardy, and, in its encounters with the badger, sometimes meets with very severe treatment, which it sustains with great courage and fortitude; and a well-trained veteran dog frequently proves more than a match for that hard-bitten animal. The Terrier is generally of a reddish brown-colour, and sometimes black; and there are differeat races, some of which are rougher and stronger than others. The Terrier is of a long form; short legged, and strongly bristled, about the muzzle.

*Turnspit.*—This is a breed very much on the decline in England, though still used in some other countries. It is a long bodied, short legged dog, with crooked or bowed knees, and is commonly of a dusky grey, spotted with black.

*Alco.*—The Peruvians, it is said, on the arrival of the Spaniards, had some domestic animals of this name, which were of the size and disposition of small dogs; and from their appearance, and because they were equally faithful to their masters, they were called by the Spaniards *Peruvian Dogs*. The descriptions, however, of the animal are not quite so clear as might be wished. It had a very small head, an arched back, and a short, pendulous tail; its general colour was white, patched or spotted with yellow.

Besides the varieties of dogs above enumerated, there are many others arising from the mixture of breeds; but it would be tedious, as well as use-

less, to particularize with scrupulous minuteness all the differences of this varying race. The principal varieties are well figured in the Count de Buffon's Natural History, and are copied into Mr. Smellie's translation of that elegant work. In the present publication, solicitous to introduce figures of the rarer animals, rather than of such as are well known, we have admitted only the Shepherd's Dog, the Dingo or Australasian Dog, and the Irish Greyhound, as elucidations of the species.

The Linnæan specific character of the Dog, viz. that the tail hangs or turns towards the left, has frequently excited the ridicule of those who wish to lessen the merit of the great and accurate Northern Naturalist. It is, indeed, undeniable, that the character above mentioned is not always distinctly perceivable; yet it seems to be a more predominating particularity than any other, when applied to the whole race or species in general.

It would be unnecessary to dwell on the particular uses and qualities of this animal. Every one knows that the Dog, when properly educated, is the most faithful of quadrupeds, and the most devoted to the service of mankind. "The Dog (says Buffon), independent of the beauty of his form, his vivacity, force, and swiftness, is possessed of all those internal qualifications that can conciliate the affections of man, and make the tyrant a protector. A natural share of courage, an angry and ferocious disposition, ren-

der the Dog, in his savage state, a formidable enemy to all other animals: but these readily give way to very different qualities in the domestic dog, whose only ambition seems the desire to please. He is seen to come crouching along, to lay his force, his courage, and all his useful talents, at the feet of his master. He waits his orders, to which he pays implicit obedience: he consults his looks, and a single glance is sufficient to put him in motion: he is more faithful even than the most boasted among men: he is constant in his affections, friendly without interest, and grateful for the slightest favours: much more mindful of benefits received than of injuries offered: he is not driven off by unkindness; he still continues humble, submissive, and imploring: his only hope is to be serviceable; his only terror to displease: he licks the hand that has been just lifted to strike him, and at last disarms resentment by submissive perseverance. More tractable than man, and more pliant than any other animal, the dog is not only soon instructed, but even conforms himself to the manners, movements, and habits of those who govern him. He assumes the very tone of the family in which he lives. Like other servants, he is haughty with the great, and rustic with the peasant. Always eager to obey and to please his master, or his friends, he pays no attention to strangers, and furiously repels beggars, whom he distinguishes by their dress, their voice, and their gestures. When the charge of a house or garden is committed to him during the night, his bold-

ness increases, and he sometimes becomes perfectly ferocious. He watches, goes the rounds, smells strangers at a distance, and if they stop or attempt to leap any barrier, he instantly darts upon them, and by barking, and other marks of passion, alarms the family and neighbourhood. Equally furious against thieves as against rapacious animals, he attacks and wounds them, and forces from them whatever they have been attempting to carry off; but, contented with victory, he lies down upon the spoil, and will not touch it even to satisfy his appetite, exhibiting, at the same time, an example of courage, temperance and fidelity.

“ To conceive the importance of this species in the order of Nature, let us suppose that it never existed. Without the assistance of the Dog, how could men have conquered, tamed, and reduced the other animals into slavery? How could he still discover, hunt down, and destroy noxious and savage beasts? For his own safety, and to render him master of the world, it was necessary to form a party among the animals themselves; to conciliate by caresses those which were capable of attachment and obedience, in order to oppose them to the other species. Hence the training of the Dog seems to have been the first art invented by man; and the result of this art was the conquest and peaceable possession of the earth.”

The docility of the dog is such, that he may be taught to practise, with considerable dexterity, a



variety of human actions. It is recorded of a Dog belonging to a nobleman of the Medici family, that it always attended at its master's table; changed the plates for him, and carried him his wine in a glass placed on a salver, without spilling the smallest drop.

Plutarch relates, that, in the theatre of Marcellus, a dog was exhibited before the Emperor Vespasian, so well instructed as to excel in every kind of dance: he afterwards feigned illness in so exquisite a manner as to strike the spectators with astonishment; first shewing symptoms of pain, then falling down, as if dead, and suffering himself to be carried about in that state; and afterwards, at the proper time, seeming to revive, as if waking from a profound sleep; and then sporting about and shewing all the demonstrations of joy.

But of all the educational attainments by which the Dog has been distinguished, that of learning to speak seems the most extraordinary. The French academicians, however, make mention of a Dog in Germany, which could call, in an intelligible manner, for tea, coffee, chocolate, &c. &c. The account is too curious to be omitted here, and is from no less a person than the celebrated Leibnitz, who communicated it to the Royal Academy of France. This Dog was of a middling size, and was the property of a peasant in Saxony. A little boy, the peasant's son, imagined that he perceived in the Dog's voice an indistinct resemblance to certain words, and, there-

fore, took it into his head to teach him to speak. For this purpose he spared neither time nor pains with his pupil, who was about three years old when this his learned education commenced; and at length he made such a progress in language as to be able to articulate no less than thirty words. It appears, however, that he was somewhat of a truant, and did not very willingly exert his talents, being rather pressed into the service of literature; and it was necessary that the words should be first pronounced to him each time, which he, as it were, echoed from his preceptor. Leibnitz, however, attests that he himself heard him speak; and the French academicians add, that, unless they had received the testimony of so great a man as Leibnitz, they should scarcely have dared to report the circumstance. This wonderful Dog was born near Zeitz in Misnia, in Saxony.

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WOLF.

Canis Lupus. *C. cauda incurvata.* *Lin. Syst. Nat. p. 58.*

Dog with incurvated tail.

Canis ex griseo flavescens. *Briss. Quadr. p. 170.*

Lupus. *Gesn. Quadr. 634. Aldr. dig. 144.*

Loup. *Buff. 7. p. 39. pl. 1.*

Wolf. *Pennant Quadr. 4. p. 248.*

THE Wolf is distinguished from the Dog by his superior size, stronger limbs, more muscular body, and greater breadth of the upper part of the face,

while the whole form of it is longer: the tail also, which in the Dog is pretty uniformly turned a little towards one side (generally the left), in the Wolf has an inward direction; it is rather long and bushy: the rictus or opening of the mouth seems somewhat shorter in proportion than that of the dog, yet the jaws are far stronger, and the teeth larger: the eyes are also more obliquely placed than in the Dog.

The Wolf is a native of almost all the temperate and cold regions of the globe. It is found in most countries of Europe, but has been totally extirpated from our own island, as well as from Ireland. How numerous these pernicious animals must have once been in Britain, may be guessed from the celebrated laws of King Edgar, who attempted the extirpation of these animals by commuting the punishments for certain crimes into the acceptance of a number of Wolves' tongues from each criminal: in Wales by converting the tax of gold and silver into an annual tribute of three hundred Wolves' heads. In succeeding reigns, their destruction was promoted by proper rewards; and the lands of certain persons were held, according to our historian Camden, on condition of destroying the wolves which infested those parts of the kingdom.

The general colour of the Wolf is a pale grey, with a cast of yellowish, but it varies much as to the shades or gradations of colour in different parts of the world. Those of Africa are said to be larger than those of Europe; while, on the

contrary, the American ones are considerably smaller; and from these latter, it is pretended, the Dogs proceeded, which were observed in North America, on the first arrival of the Europeans. In the less inhabited parts of America the Wolves are said to go in great droves, and to hunt the deer and other animals in the manner of hounds, with hideous howlings; and it is affirmed that they will even attack the Buffalo himself. When reduced to extremity by hunger, they swallow great quantities of mud, to allay the uneasy sensations of their stomachs. In the inhabited parts of America, however, Wolves are now become rare. In some parts of Europe the number of Wolves seems rather to have increased than diminished; and this appears to be the case in Sweden, since, according to Linnæus, the Wolf was very rare in that country, till about the year 1720. The Swedes, besides other methods, have a way of destroying the Wolf, by leaving the carcase of a sheep or other animal, stuffed with a species of Lichen or tree-moss (*Lichen vulpinus*), which is considered as a certain poison to the Wolf, and (if we may judge from the name) to the Fox also. This lichen is of a filamentous or stringy form, very much branched, and of a yellow-colour; and is found in great plenty on the bodies of various trees, as well as, occasionally, on old wooden roofs, walls, &c. It is said to be mixed with pounded glass when used for the purpose above mentioned, and the glass is probably the most efficacious destroyer of the animal.

The Wolf is sometimes affected with madness, attended with similar appearances to those exhibited in that state by the Dog, and productive of the same symptoms in consequence of its bite: this disease is said to happen to them in the depth of winter, and, therefore, as Mr. Pennant observes, can never be attributed to the rage of the dog-days. Wolves, in the northern parts of the world, sometimes, during the spring, get on the ice of the sea, in order to prey on young seals, which they catch asleep; but this repast sometimes proves fatal to them; for the ice, detached from the shore, carries them to a great distance from the land, before they are sensible of it. It is said that in some years a large district is by this means delivered from these pernicious beasts, which are heard howling in a most dreadful manner far in the sea.

“ The Wolf (says Buffon) is one of those animals whose carnivorous appetite is the strongest. Though he has received from Nature the means of gratifying his taste, though she has bestowed on him arms, craftiness, strength, agility, and every thing necessary for discovering, seizing, conquering, and devouring his prey, yet he often dies of hunger; because men have declared war against him, put a price on his head, and forced him to fly to the forests, where he finds only a few species of wild animals, who escape from him by the swiftness of their course, and whom he cannot surprise but by chance, or by a patient and often fruitless attendance at those places to

which they generally resort. He is naturally clownish and dastardly; but want makes him ingenious, and necessity gives him courage. When pressed with famine, he braves danger; he attacks those animals which are under the protection of man, especially such as he can transport with ease, as lambs, small dogs, and kids; and when successful in his bloody expeditions, he returns often to the charge, till, being wounded, chased, and persecuted by men and dogs, he retires, during the day, to his den; but issues forth in the night, traverses the country, roams about the cottages, kills all the animals which have been left without, digs the earth under the doors, enters with a dreadful ferocity, and puts every living creature to death before he chooses to depart and carry off his prey. When these inroads happen to be fruitless, he returns to the woods, searches about with avidity, follows the tract of wild beasts, and pursues them, in the hope that they may be stopped and pursued by some other Wolf, and that he may be a partaker in the spoil. In fine, when his hunger is extreme, he loses the idea of fear; he attacks women and children, and even sometimes darts upon men, till, becoming perfectly furious by excessive exertions, he generally falls a sacrifice to pure rage and distraction."

In the year 1764 an animal of this kind exerted peculiar ravages in some particular districts of Gevaudan in Languedoc, and became the terror of the whole country. If the accounts then given

in the Paris Gazette may be trusted, he was known to have destroyed at least twenty persons, chiefly women and children. With the usual aggravation of popular description, he was represented by some who had seen him, as far surpassing in size the rest of his species, and striped somewhat in the manner of a tiger. Public prayers were said to have been offered up for his destruction.

The time of gestation in the Wolf is (according to Buffon) about three months and a half; and the young whelps are found from the end of April to the beginning of July; and this difference in the time of gestation, which in the Wolf is 100 days, and in the Dog only 60, he considers as a proof of the real difference between the two species.

Notwithstanding the savage nature of the Wolf, he is still capable, when taken young, of being tamed. A remarkable instance of this is said to have been exhibited in a Wolf belonging to the late Sir Ashton Lever, which was, by proper education, entirely divested of the ferocious character of its species.

## MEXICAN WOLF.

*Canis Mexicanus. C. cauda deflexa laevi, corpore cinereo, fuscis fuscis maculisque fulvis variegato. Lin. Syst. Nat. Gmel. p. 71.*

Dog with deflected tail, and ash-coloured body, variegated with dusky bands and fulvous spots.

*Canis cinereus, maculis fulvis variegatus. Briss. Quadr. 237.*

Loup de Mexique. *Buff. 15. p. 49.*

Mexican Wolf. *Pennant Quadr. 1. p. 250.*

THIS species, which Buffon is inclined to consider as a variety of the common Wolf, gradually altered by climate (having, as he supposes, migrated originally from the northern parts of the American continent to the southern), appears to have been first described by Hernandez, in his account of Mexico. In its general appearance it resembles the common Wolf; but has a head twice as large, a thicker neck, and a less bushy tail: the colour of the body is cinereous, marked with some yellow spots: the head is of the same colour with the body, and marked with transverse brownish lines, and the front is spotted with yellow: above the mouth are situated several bristles, as large, but not so stiff, as those of a hedgehog: the ears are grey, like the head and body: there is a long yellow spot on the neck, another on the breast, and a third on the belly: on the flanks are transverse bands from the back to the belly: the tail is grey, with a yellow spot in the middle: the legs are barred with grey and brown. The description, as given by Mr. Pennant, differs somewhat from the former, and is thus delivered:



“D, With a very large head; great jaws; vast teeth: on the upper lips strong bristles, reflected backwards, not unlike the softer spines of a porcupine, and of a grey and white-colour: large, erect, cinereous ears; the space between marked with broad tawny spots: the head ash-coloured, striped transversely with bending dusky lines: neck fat and thick, covered with a loose skin, marked with a long tawny stroke: on the breast is another of the same kind: body ash-coloured, spotted with black; and the sides striped, from the back downwards, with the same colour: belly cinereous: tail long, of the colour of the belly, tinged in the middle with tawny: legs and feet striped with black and ash-colour.” Mr. Pennant adds, that Hernandez himself (its first describer) considers it as a variety of the common species. It is sometimes found white. It is a native of the hotter parts of Mexico, and in its manners agrees with the common Wolf.

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BLACK WOLF.

Canis Lycaon. *C. cauda recta, corpore toto nigro.* *Lin. Syst.*

*Nat. Gmel. p. 73.*

Black Wolf with strait tail.

Loup noir. *Buff. 9. p. 362. pl. 41.*

THIS animal, considered by Buffon and others as a variety only of the common Wolf, is at present regarded as a distinct species. Like the common Wolf, it is found both in Europe and

America, as well as in some parts of Asia. It bears a great general resemblance to the common species, but is smaller, entirely black, with a somewhat thinner or less bushy tail, hanging nearly straight: the ears are larger in proportion than those of the common Wolf, and the eyes smaller, and situated at a greater distance from each other. In America the Black Wolf is chiefly found in Canada, and in Europe occurs only in the more northern regions.

In the Gmelinian edition of the *Systema Naturæ* this animal seems to be confounded with the Black Fox (a variety of the Fox found in Siberia, Kamtschatka, Canada, &c. and so highly prized on account of its beautiful fur). The same mistake seems also to occur in Schreber. The skin of the Black Wolf, however, is considered but as a very coarse and indifferent fur.

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HYÆNA.

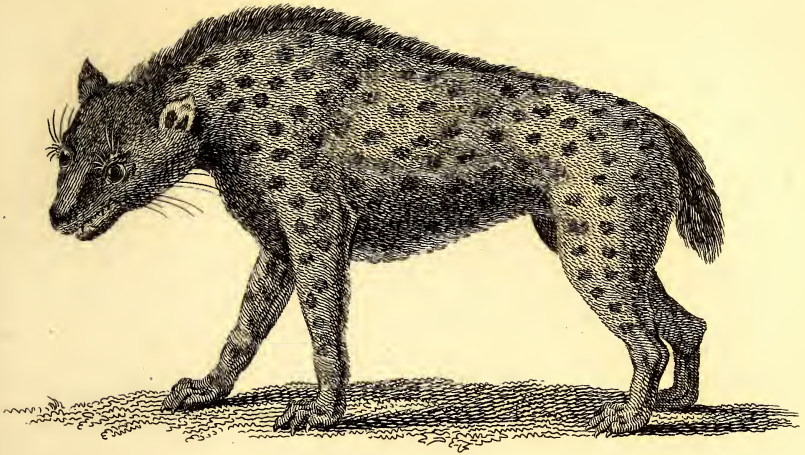
Canis Hyæna. *C. cauda recta, pilis cervicis erectis, auriculis nudis, pedibus tetradactylis.* *Linn. Syst. Nat. Gmel. p. 71.*

Pale-brown Hyæna, striped with black, with upright mane, naked ears, straight tail, and four-toed feet.

L'Hyæna. *Buff. 9. p. 268. pl. 25. and suppl. 3. p. 234. pl. 46.*

Striped Hyæna. *Pennant Quadr. 1. p. 270.*

THE Hyæna is a native of many parts of Asia and Africa, being found in Syria, Persia, Barbary, Senegal, &c. &c. Its general size is that of a large Dog, but it is distinguished by great



SPOTTED HYÆNA.



HYÆNA.



strength of limbs, and by a remarkable fulness or thickness of the snout. Its colour is a pale greyish-brown accompanied by a tawny cast; and the whole body is marked by several distant blackish transverse bands running from the back downwards: these bands are much more numerous as well as of a deeper colour on the legs: from the neck along the upper part of the back runs a strong bristly mane: the snout or nose is black: the ears are longish, sharp-pointed, and nearly naked: the tail is rather short than long, and is very full of hair. On all the feet are four toes.

Hyænas generally inhabit caverns and rocky places: they prowl about chiefly by night, and feed on the remains of dead animals as well as on living prey. They are even said to devour the bodies which they occasionally find in cemeteries. They attack cattle, and frequently commit great devastation among the flocks. Though not gregarious from any social principle, they sometimes assemble in troops, and follow with dreadful assiduity the movements of an army, through the hope of feasting on the slaughtered bodies.

There is something in the aspect of the Hyæna which seems to indicate a peculiar gloominess and malignity of disposition, and its manners in a state of captivity seem in general to correspond with its appearance, being savage and untractable. It has even been supposed that the Hyæna cannot be tamed; but this opinion is proved to be erroneous from two instances at least; one of which is recorded by Mr. Pennant, who declares

that he saw a Hyæna which had been rendered as tame as a dog; the other by the Count de Buffon, who assures us, that in an exhibition of animals at Paris, in the year 1773, there was a Hyæna which had been tamed very early, and was apparently divested of all its natural malevolence of disposition. A remarkable particularity in this animal, but which is sometimes observed in dogs, &c. is, that when it is first dislodged from cover, or obliged to run, it always appears lame for a considerable space, and that sometimes to such a degree, according to Mr. Bruce, as to make the spectator suppose one of the hind legs to be broken; but after running some time, this affection goes off, and he runs swiftly away. The superstitions of the ancients respecting this animal, its annual change of sex, &c. &c. are too absurd to be even mentioned in the present period of illumination.

The Hyæna about Mount Libanus, Syria, the north of Asia, and about Algiers, is known, according to Mr. Bruce, to live mostly upon large succulent bulbous roots, especially those of the *Fritillaria*, &c. and that author informs us that he has known large spaces of fields turned up to get at onions or roots of those plants; and these were chosen with such care, that, after having been peeled, they were refused and left on the ground on account of a small rotten spot in them; Mr. Bruce, therefore, imagines that his primitive manner of feeding was rather on vegetables than on flesh; but in Abyssinia he seems long to have

abandoned his primitive food of roots, if indeed it ever was such; and in that barbarous and ill-governed country he finds more frequent opportunities than perhaps any where else in the world to indulge his appetite for flesh. In Barbary, Mr. Bruce assures us he has seen the Moors, in the day-time, take this animal by the ears, and pull him along, without his offering any other resistance than that of drawing back; and the hunters, when his cave is large enough to give them admittance, will take a torch in their hand, and go strait to him; and pretending to fascinate him by a senseless jargon of words which they repeat, they throw a blanket over him, and hawl him out. Mr. Bruce locked up a goat, a kid, and a lamb, with a Barbary Hyæna all day, when he was fasting, and found them in the evening alive and unhurt; but repeating an experiment of this kind one night, he ate up a young ass, a goat, and a fox, all before morning, so as to leave nothing but some small fragments of the ass's bones. In Barbary, therefore, he has no courage by day, but flies from man, and hides himself from him; while in Abyssinia he is so bold as to prowl about in open day, and to attack with savage fury such animals as chance may offer to his view.

“ I do not think (says Mr. Bruce) there is any one that hath hitherto written of this animal who ever saw the thousandth part of them that I have. They were a plague in Abyssinia in every situation, both in the city and in the field, and, I think, surpassed the sheep in number. Gondar

was full of them from the time it turned dark till the dawn of day, seeking the different pieces of slaughtered carcasses which this cruel and unclean people expose in the streets without burial, and who firmly believe that these animals are Falasha from the neighbouring mountains, transformed by magic, and come down to eat human flesh in the dark in safety. Many a time in the night, when the king had kept me late in the palace, and it was not my duty to lie there, in going across the square from the king's house, not many hundred yards distant, I have been apprehensive they would bite me in the leg. They grunted in great numbers about me, though I was surrounded with several armed men, who seldom passed a night without wounding or slaughtering some of them.

“ One night in Maitsha, being very intent on observation, I heard something pass behind me towards the bed, but upon looking round could perceive nothing. Having finished what I was then about, I went out of my tent, resolving directly to return, which I immediately did, when I perceived large blue eyes glaring at me in the dark. I called upon my servant with a light, and there was the Hyæna standing nigh the head of the bed, with two or three large bunches of candles in his mouth. To have fired at him I was in danger of breaking my quadrant or other furniture, and he seemed, by keeping the candles steadily in his mouth, to wish for no other prey at that time. As his mouth was full, and he had no claws to tear with, I was not afraid of him, but with a pike struck him as near the heart as I



could judge. It was not till then he shewed any sign of fierceness; but, upon feeling his wound, he let drop the candles, and endeavoured to run up the shaft of the spear to arrive at me, so that, in self-defence, I was obliged to draw a pistol from my girdle and shoot him, and nearly at the same time my servant cleft his skull with a battle-ax. In a word, the Hyæna was the plague of our lives, the terror of our night-walks, the destruction of our mules and asses, which above all others are his favourite food."

Mr. Bruce seems inclined to believe the Abyssinian Hyæna distinct from the common species, having a snout somewhat less thick or hog-like, and more approaching to the form of a dog's nose. From his figure, however, there can be little doubt of its being a mere variety. The largest Hyæna ever seen by Mr. Bruce measured five feet nine inches from the nose to the base of the tail: its colour was a yellowish-brown, marked with distant blackish bands, most numerous on the legs.

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SPOTTED HYÆNA.

*Canis Crocuta.* *C. cauda recta, corpore nigro maculato, pedibus tetradactylis.* *Linn. Syst. Nat. Gmel. p. 72.*

Reddish-brown Hyæna spotted with black, with strait tail and four-toed feet.

Spotted Hyæna. *Pennant Quadr. I. p. 272.*

THIS animal much resembles the common or striped Hyæna in its general appearance, but is

superior in size, and is readily distinguished by being marked all over the body and legs with numerous roundish black spots: along the neck is an upright black mane: the face and upper part of the head are black: the ears short, rather pointed, black on the outside, and grey within: the tail black, rather short, and full of hair. It is an African animal, and is found in Guinea, Æthiopia, and about the Cape of Good Hope. In its manner of life resembles the former species, and exerts equal ravages amongst the cattle of the districts in which it resides. By some writers it has been erroneously termed a Jackal.

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JACKAL.

Canis Aureus: *C. cauda recta, corpore pallide fulvo.* *Lin. Syst.*

*Nat. Gmel. p. 72.*

Pale-fulvous Dog, with strait tail.

Lupus aureus. *Kaempfer amoen. exot. p. 413. t. 407. f. 3.*

Schakal. *Pennant Quadr. 1. p. 262.*

THE Jackal is a native of the warmer regions of Asia and Africa, and appears to be no where more common than in Barbary. It is about the size of a middling Dog, and is of a pale or light orange-yellow, with darker or blackish shades about the back and legs: the tail hangs strait, is rather bushy, and is commonly black at the tip. The Jackal resides in rocky places, and in woods, and makes its principal excursions during the night; preying indiscriminately on all the weaker animals. It also occasionally devours various ve-



JACKAL.



CAPE JACKAL.



getables. The voice of the Jackal is described as peculiarly hideous, consisting of a kind of mixture of howling and indistinct barking. These animals frequently go in great troops, to hunt their prey, and by their dreadful yellings alarm and put to flight deer, antelopes, and other timid quadrupeds; while the Lion, instinctively attending to the clamour, is said to follow till the Jackals have hunted down the prey, and, having satiated himself, leaves only the mangled remains to be devoured by the Jackals.

It is for this reason that the Jackal is popularly termed the Lion's Provider. When pressed by hunger, Jackals have been frequently known to enter towns and devour indiscriminately whatever animal substance they can find. They commit ravages among the flocks, kill fowls, &c. and have been known to attack mankind.

There is great reason for supposing this animal to be the real origin of the Dog, since almost all its manners and propensities are the same. When taken young, it is easily tamed; attaches itself to mankind, distinguishes its master, comes on being called by its name, shews an attachment to Dogs, instead of flying from them, and has all the other particularities of character by which the Dog is distinguished: amongst others, the important observation of Professor Guldenstedt, who has given an accurate description of the Jackal in the Petersburg Transactions, should by no means be omitted, viz. that the Jackal and Dog agree in the structure of the coecum or short intestine, and

differ in that respect both from the Wolf and the Fox. According to Mr. Pennant, the Jackal inhabits "all the hot and temperate parts of Asia, India, Persia, Arabia, Great Tartary, the regions about Mount Caucasus, Syria, and the Holy-land, and occurs, in most parts of Africa, from Barbary to the Cape of Good Hope."

The most authentic figure of the Jackal seems to be that published by Mr. Schreber, which, he informs us, is from a drawing communicated by Dr. Pallas, and which was taken from the living animal brought from the Levant, and figured under his own inspection: it also agreed perfectly with the skin of one brought from Persia, and preserved at Petersburg. This figure is, therefore, copied in the present publication. The following most accurate description by Dr. Pallas will, no doubt, be considered as an important addition to the history of this animal.

"In external figure the Jackal resembles the Wolf more than the Fox. It is also larger, and stands higher on its legs than the Fox. The head is of a fox-red above, mixed with ash-grey hairs, which have each a blackish ring and tip: the upper lip is white on each side the nose, and the throat is of the same colour: the whiskers, the long hairs on the chin, and those above the eyes, which are five in number, are black: the ears are fox-red externally, and white internally: the neck and back are all over grey-yellow, and both, but especially the latter, are dashed with a shade of dusky, owing to the tips of the long hairs on

those parts: the under parts of the body and the legs are of a light reddish-yellow, but the shoulders and thighs are externally of a fox-red: the claws are black; the thumb-claw stands higher than in the Dog, and is crooked: the tail is strait, somewhat longer and more hairy than in the Wolf, and is of a greyish-yellow, more inclining to fox-red towards the end; the long hairs have black tips, and consequently the tip of the tail appears black: the hair of the Jackal is coarser and stronger than that of the Wolf, and is longest on the shoulders and tail, where it measures four inches: on the neck and back it is shorter by an inch: between the hairs is situated a woolly fur of a grey colour: the four middle front teeth are of a truncated form, or, if cut off, flat, not perceptibly notched or indented: the two exterior larger ones in the upper jaw are somewhat carinated, in the lower rounded: the side or canine-teeth in the upper jaw are somewhat larger than in the under: the grinders are six on each side, the first being the smallest, and of a conical shape; the next grinders, to the number of two in the upper and three in the lower, are gradually larger, and divided into three points: the fourth of the upper jaw and the fifth of the under are the largest, and have two points: the remaining ones stand deeper in the jaw, or more inwards, and are smaller than the preceding: the tongue has on each side a border or row of small verrucæ or warts."

According to Mr. Pennant, the usual length of the Jackal is about two feet and a half; the fe-

male is somewhat smaller than the male, and has from six to eight paps. Dr. Pallas counted, in a young Jackal, three teats on one side, and four on the other, of which the foremost was situated near the sides of the breast.

The more we consider the nature and manners of this animal, the more reason we shall find to coincide with Professor Guldenstadt in opinion, that the Jackal is the real origin of the Dog; (unless, indeed, we allow the wild dogs of Africa, mentioned under the history of that species, to be the Dog in a state of nature). Mr. Guldenstadt very properly observes, that the natale solum of the Wolf does not seem to fit it for being the supposed origin of the Dog, since it is generally confined to the frigid zone: its size is also against the supposition; for the natural size of any species of animal appears to be between that of the large and small varieties. The Fox is still more unlike the Dog, as to some particulars in the structures of the intestines: the native country of the Jackal, which is properly Asia Minor, is the land where we should naturally suppose the primæval domestic Dog to have originated. The Jackal, according to Mr. Guldenstadt, has a natural propensity to follow mankind, instead of flying from him, like the Wolf and the Fox. The whelp, he adds, is very readily tamed, and, when grown up, assumes all the habits of the domestic Dog: fawns on his master, rejoices, wags its tail, throws itself on its back, and murmurs gently, distinguishes its name, jumps on the table, &c. &c. &c.



“ Catulus captus facile cicuratur, et in hospitio adultus blanditur; homines læte adspiciendo, caudam motitando, corpus prosternendo, vel in dorso se projiciendo, levi murmure ganniendo. Dominum distinguit a reliquis; ad nomen proprium ipsi impositum attendit; in mensam invitatus insilit; contortuplicatus dormit; lambendo bibit; scybala dura cacat; ad latus mingit; in societate canum pacificus anum eorum odorat. Odor, quem Schacala per glandulas anales spargit, nec teterrimus, ut *Dumon* voluit, nec moscho analogus, ut alii voluerunt, hunc eo vulpis mitiorem et illo canis foetore instante tempestate erumpente, vix deteriorem esse sentio.”

That the Jackal and Dog readily intermix or breed, appears from various testimonies, according to the Count de Buffon, in his chapter on the degeneration of animals. Mr. G. cannot consider the *cauda recurvata* as an essential character of the Dog, but thinks it may have originated from cicuration. The Jackal, he thinks, with many other authors, may probably be the Thos of Aristotle.

Mr. G. saw no Jackals of the exact measure given by Gmelin, but, in general, of twenty-six or twenty-seven Paris inches from the nose to the beginning of the tail. The general colour, he adds, is a dirty fulvous, rather blacker on the back, and yellowish-white beneath. On each knee is generally a black patch, and the tip of the tail is of the same colour.

## CAPE JACKAL.

*Canis Mesomelas.* C. *Cauda recta, corpore ferrugineo, fascia dorsali nigra.* *Lin. Syst. Nat. Gmel. p. 73.*

Ferruginous Dog, with strait tail, and black dorsal band.

Der Capische Schakal. *Schreber saength. 1. p. 370. tab. 95.*

Cape Schakal. *Pennant Quadr. 1. p. 265.*

THIS animal is said to be not uncommon about the Cape of Good Hope, and is by some confounded with the Jackal, to which, indeed, it seems to be very nearly allied. The head is yellowish-brown, with a mixture of black and white hairs, especially on the hind part; the nape of the neck and the whole length of the back black, with a mixture of white: the black band commences at the top of the neck, and widens over the shoulders, in an almost rhomboid form, from thence decreasing to the tail, along the upper part of which it is still continued in form of a stripe. This black dorsal band is clouded on each side in the broadest part with whitish or greyish undulations, and a similar mixture is visible on the middle of the band. The general colour of the animal is bright foxy or ferruginous, with the throat, breast, abdomen, and insides of the thighs whitish: the tail is not unlike that of a fox, but rather less bushy, and is of the same bright ferruginous as the upper parts of the body, with three transverse black bands towards the end, and a black tip. The length of this animal is two feet and three quarters, exclusive of the tail, which

measures one foot. The description of this species was drawn up by Mr. Schreber, from a skin sent from the Cape: the figure also accompanying the description was from the same skin. It is here copied from the work of Mr. Schreber. Mr. Schreber observes, that the figure of the Jackal given by the Count de Buffon seems much more nearly allied to this animal than to the preceding. Mr. Pennant informs us, that the figure in question was copied from a skin in but an indifferent state of preservation, in the Ashmolean Museum at Oxford, and was by himself communicated to the Count de Buffon, who introduced it into his work.

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BARBARY JACKAL.

Canis Barbarus. *C. subfuscus, cauda recta, fascia subauriculari descendente furcata nigra, cauda fasciis tribus fuscis.*

Pale-brown Dog, with strait tail, a black descending forked band from behind each ear, and three dusky bands on the tail.

Barbary Schakal. *Pennant Quadr.* 1. p. 260.

Le Chachal. *Buff. suppl.* 6. p. 112. *pl.* 16.

THIS species has a long slender nose, sharp upright ears, and a long bushy tail. Its colour is a very pale brown: from behind each ear runs a black line, which soon divides into two, running downwards along the neck: the tail is surrounded by three dusky rings or zones. It is of the size of the common Fox, but the limbs seemingly

shorter, and the nose more slender. A drawing made from the skin of this animal in the Ashmolean Museum at Oxford was communicated, as before mentioned, by Mr. Pennant to the Count de Buffon, which he caused to be engraved in his third supplemental volume.

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CEYLONESE DOG.

*Canis Ceilonicus.* *C. cinereo-flavescens, naso elongato, cauda longa acuminata, unguibus incurvis.*

Yellowish-grey Dog, with lengthened snout, long sharp-pointed tail, and crooked claws.

Chien sauvage de Ceylon. *Vosmaer descr.*

Ceylonese Dog. *Pennant Quadr. 1. p. 266.*

THIS species is a native of Ceylon, but no particulars relative to its manners or history are known. It was described by Mr. Vosmaer from a stuffed skin. He informs us that it was a little larger than a common domestic cat, measuring about twenty-two inches from nose to tail: the tail itself sixteen inches, gradually tapering to the point. The ground colour is a yellowish-grey, with a cast of brown on some parts, owing to the longer hairs which are of that colour: the feet are strongly tinged with brown; and here and there along the back the brown cast seems to form a kind of stripes or rays: the belly is cinereous: the hair on the whole animal is closish, but soft to the touch: the head is long and pointed; the

snout and part under the chin brown, but the top of the head of a yellowish ash-colour, which passing beyond the ears, forms as it were a spot below them, and descends from thence to between the eyes, where it terminates in a point. Beneath the eyes, on the cheeks, are some oblong patches of a clearer or brighter colour than the rest of the skin: the nostrils open, in the form of crescents: on each side the front of the nose are seated long hairs or whiskers of a blackish brown-colour: two similar hairs are also situated at each corner of the eye; and on each side the head, in a strait line from the nose, is a simple hair like the former: the ears are small, pointed, and elevated; and of a brown-colour. There are six front-teeth in the upper mandible; beyond which are two large canine-teeth; and farther back (so far as the dried state of the specimen permitted a view) four very pointed grinders; but there are probably more, which could not be seen. In the lower jaw are six small front-teeth, large canine ones, and six grinders on each side. The claws of this animal resemble those of a Cat more than of a Dog, though not so long and slight in proportion. Both fore and hind feet have five toes. The animal was received from Ceylon, under the name of Wild or Wood Dog.

## FOX.

*Canis Vulpes. C. cauda recta, apice albo. Lin. Syst. Nat.*  
*p. 59.*

Dog with strait tail tipped with white.

*Vulpes. Gesn. Quadr. 966. Aldr. dig. 195. Jonst. Quadr. 82.*

*Renard. Buff. 7. p. 75. pl. 6.*

THE FOX, like the Wolf, appears to be pretty generally diffused throughout all the northern and temperate parts of the globe; occurring with numerous varieties, as to shades of colour and gradations of size, in most parts of Europe, the north of Asia, and America. The general colour of the Fox is yellowish-brown, or ferruginous above and whitish beneath: the tip of the tail is also white; and this circumstance forms the principal part of the Linnæan specific character of the animal, and though it appears rather too slight to be fixed upon as a criterion of the species, yet, perhaps, it would not be very easy to form one that would be more decisive. According to Mr. Pennant (in his *British Zoology*), the variety called the *Cur Fox*, which is said to be somewhat smaller than the general run of Foxes in England, and more addicted to lurk about hedges, outhouses, &c. has the tip of the tail black instead of white; if, however, this supposed variety be the *Canis Alopex* of Linnæus, it is considered in the *Systema Naturæ* as a distinct species. Sometimes, though very rarely, the Fox has been found entirely white; an instance of which occurs in the works of Ridinger.

“The Fox (says Buffon) is so extremely subject to the influences of climate, that the varieties of this species are as numerous as those of the domestic animals. Most of our Foxes are reddish; but some are found of a silver-grey; in both the end of the tail is white: in Burgundy the latter are called Coal-Foxes (Charbonniers), because their feet are remarkably black. Their bodies have also the appearance of being shorter; because they are better clothed with hair. There are some which are really shorter than the other kinds, and of a dirty grey-colour, nearly the same with that of old Wolves; but it is uncertain whether this difference constitutes a real variety, or is produced by the age of the animal, which perhaps grows whiter as he advances in years. In the northern climates are Foxes of all colours; black, blue, grey, iron-colour, silver-grey, white, with yellow feet, white with black heads, white with the extremity of the tail black, reddish with the throat and belly entirely white, and, lastly, some have a black line along the back, and crossed with another over the shoulders: the latter are larger than the other kinds, and have black throats.”

Some of the above, however, which the Count de Buffon considered at that time as varieties, are at present regarded as species perfectly distinct.

The Fox has a broad head, a sharp snout, a flat forehead, obliquely-seated eyes, sharp erect ears, a body well covered with hair, and a strait bushy and somewhat pointed tail.

The general colour is a yellowish-red, or more properly yellow-brown, and on the forehead, shoulders, hind part of the back as far as the beginning of the tail, and outside of the hind legs, it is a little mixed with white or ash-colour: the lips, cheeks, and throat, are white, and a stripe of the same colour runs along the under side of the legs: the breast and belly are ash-grey or whitish-grey: the tips of the ears and the feet are black: the tail extremely reddish-yellow, mixed with a tinge of blackish, and internally brownish yellow-white, with a blackish cast; the tip itself milk-white.

The Fox prepares for himself a convenient den or receptacle in which he lies concealed during the greater part of the day. This den is sometimes said to be obtained by dispossessing the Badger of its hole, and appropriating it to his own purposes. It is so contrived as to afford the best security to the inhabitant, by being situated under hard ground, the roots of trees, &c. and is besides furnished with proper outlets through which he may escape in case of necessity.

This care and dexterity in constructing himself a domicil, is by the Count de Buffon considered as alone sufficient to rank the Fox among the higher order of quadrupeds, since it implies no small degree of intelligence.

“ The Fox knows how to ensure his safety, by providing himself with an asylum, to which he retires from pressing dangers, where he dwells, and where he brings up his young. He is not a



vagabond, but lives in a settled domestic state. This difference, though it appears even among men, has greater effects, and supposes more powerful causes, among the inferior animals. The single idea of a habitation or settled place of abode, the art of making it commodious, and concealing the avenues to it, imply a superior degree of sentiment."

In clear warm weather the Fox sometimes comes out to bask in the sunshine, lying stretched out on some dry place, the stump of a tree, &c. &c. At night he commences his depredations, prowling about after poultry, small birds, leverets, rabbits, &c. &c. He is supposed to make considerable destruction among field-mice, and it is said, that, like the Cat, he plays with them for some time before he quite destroys them. He also occasionally eats frogs, newts, snails, and insects. Several kinds of berries and fruit are also an acceptable food, and he is particularly fond of grapes, and does considerable injury among vineyards. Sometimes he attacks bee-hives, and devours the honey, in spite of the stings he receives from the disturbed swarm. When pressed by necessity, he will readily devour carrion, but prefers flesh in a rare state. "I once (says Buffon) suspended on a tree, at the height of nine feet, some meat, bread, and bones. The Foxes had been at severe exercise during the night; for, next morning, the earth all around was beaten, by their jumping, as smooth as a barn floor."

The Fox attempts his prey by cunning rather

than by force: his scent is exquisite, so that he can perceive either his prey or his enemies at the distance of 2 or 300 paces: he has the habit of killing more than he eats, and hiding the remainder under grass, the roots of trees, &c. His voice is a sharp, quick yell, often ending in a higher, stronger, and screaming kind of note, not unlike that of the Peacock.

The smell of the Fox is proverbially offensive. This smell, as in many other quadrupeds, proceeds, perhaps, from certain glands situated near the base of the tail; but there is an observation in the *Systema Naturæ* of Linnæus, which at first appears in the highest degree paradoxical, viz. that the Fox diffuses an ambrosial odor from the upper part of the base of the tail. (*Ambrosiaco fragrat odore supra caudæ basin.*) This observation is also made by Mr. Schreber in his *History of Quadrupeds*. “The smell (says he) of the Fox is strong and unpleasant, but on the tail is a spot from which proceeds a violaceous scent.” This strange particularity seems to have been first published by Doebel in his work on hunting. The offensive or general smell of the Fox is supposed exactly to resemble that of the root of crown-imperial (*Fritillaria Imperialis* Lin.) This is mentioned by Dr. Grew in his *Anatomy of Vegetables*, where he assures us, that the root of this plant, “being rubbed a little, smells as like a Fox, as one Fox smelleth like another.”

The Fox produces five or six young at a time; and if they are discovered or disturbed, the fe-

male will carry them in her mouth, one at a time, to some more secret retreat; in this respect imitating the conduct of the Cat and Dog, which are known to do the same.

The Fox seems to be an extremely common animal in the Holy Land. It may be doubted, however, according to Mr. Pennant, whether the celebrated device of Sampson for destroying the corn of the Philistines was practised with these animals or with Jackals, which latter being much more easily attainable in the number specified, would have been the species most probably resorted to on that occasion.

The skin of the Fox makes a warm and soft fur, and is, therefore, used for muffs, linings, &c. At Lausanne (says Mr. Pennant) are furriers who are in possession of between two and three thousand Fox skins all taken in one winter.

The three varieties, according to this author, which occur in Great Britain, are the *Greyhound Fox*, called in Wales *Milgi*, which is the largest, tallest, and boldest, and will attack a grown sheep: secondly, the *Mastiff Fox*, which is less, but more strongly built: and, lastly, the *Cur Fox* or *Corgi*, which is the kind before mentioned, with a black tip to the tail. This last is probably the *Canis Alopex* of Linnæus.

*Var. ?*

## CROSS FOX.

This is described by Gesner in the appendix to his History of Viviparous Quadrupeds. In this variety a black line or stroke extends from the nose along the head and whole length of the back and tail, and is crossed by another band of the same colour over the shoulders, and along the outside of the fore legs, to the feet. Its throat is of a blackish tinge. It is a native, according to Gesner, of the northern parts of Europe, but is not found in Germany. He described it from a skin. Olaus Magnus affirms, that the skin of these crossed Foxes sells at a great price, and is considered as a valuable fur.—*Vid. Aldr. dig. p. 222.*

According to Mr. Pennant, it is a native not only of the northern parts of Europe, but of Asia and North America. Great number of the skins are imported from Canada, and are much esteemed for their thick and soft fur: the belly is black: and the skin varies, as to cast of colour, in different specimens, but in all is the blackness.

*Var. ?*

## BLACK FOX.

This variety occurs in the northern parts of Europe, Asia, and America. The Asiatic ones,

however, are larger and blacker than the others, and afford a richer and more valuable fur than that of almost any other quadrupeds. In America this animal is principally found in Canada. In Kamtschatka it is in its greatest perfection; but the creature is of so subtle and wild a nature as to be very rarely obtainable. A single skin has been valued at 400 rubles. The American black Foxes are often of a mixed colour, being dashed with a cinereous cast on the face, sides, &c.

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BRANT FOX.

*Canis Alopex. C. cauda recta; apice nigro. Lin. Syst. Nat. Gmel. p. 74.*

With strait tail, black at the tip.

THIS is less than the common Fox, and has a thicker and dusker fur, though sometimes, on the contrary, it is much brighter and redder than that species, as mentioned by Linnæus in his *Fauna Suecica*: the tail is tipped with black. A Pennsylvanian Brant Fox, described by Mr. Pen-  
nant, was scarcely half the size of the common Fox. It had the nose black, much sharper than in that animal; the space round the eyes ferruginous; the forehead and all the upper parts of the body black mixed with red, ash-colour, and black: the ash-colour predominated, which gave it a hoary look: the belly yellowish; the tail black above, red beneath, and ash-coloured on the sides.

In his Arctic Zoology, Mr. Pennant observes, that the British variety of the Fox with a black tip on the tail seems unknown in America. Mr. Pennant's *American Brant Fox* must be, therefore, either a variety of the other, or a distinct species.

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CORSAC FOX.

*Canis Corsac.* *C. cauda recta fulva, basi apiceque digra.* Lin.  
*Syst. Nat. Gmel. p: 74.*

With strait fulvous tail, with the base and tip white.

Korsaki. *Pall. neue nord. Beytr. 1. 29.*

THE colour of this species is, in summer, a clear yellow-ferruginous; in winter mixed or shaded with grey, deeper on the back, white on the belly, and reddish on the feet: the eyes are surrounded with a border of white; and a brownish stripe runs from them down the nose: the ears are of the same colour with the back, as is likewise the tail, but the base and tip are blackish: the ears are short: the tail almost as long as the body: the size of this animal is less than that of the common Fox. It is an inhabitant of the hilly parts between Jaik and Irtisch, where it resides in its den under ground, and commits great ravages among the game. It is hunted by the inhabitants of those regions with Falcons and Dogs, and it is said that not less than forty or fifty thousand are annually taken. These are sold to the Russians for about forty *kopeiks* (about twenty pence) each: a vast number of the skins are said to

be sent into Turkey. The Count de Buffon, according to Mr. Pennant, confounds this species with the Isatis or Arctic Fox.

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## KARAGAN FOX.

Canis Karagan. *C. cauda recta, corpore griseo, auriculis nigris.*  
*Lin. Syst. Nat. Gmel. p. 74.*

With strait tail, grey body, and black ears.

THIS is a small species, which, according to Dr. Pallas, is very common in almost all parts of the Kirghision deserts, and Great Tartary. Its general colour is a wolf-grey; the head yellowish, and above the eyes reddish: the ears are black on the outside, and white within, with the edge and base red; and near the base is a white spot: between the shoulders is a dark spot, from which, along the back to the tail, runs a reddish or yellowish streak: the throat and breast are of a deep or blackish grey, the belly white. The above description is from Dr. Pallas, as communicated to Mr. Pennant.

## FULVOUS-NECKED FOX.

*Canis cinereo-argenteus. C. cauda recta, corpore cinereo, collo lateribus fulvo. Lin. Syst. Nat. Gmel. p. 74.*

Ash-grey, with strait tail, and the sides of the neck fulvous.

Der Grisfuchs. *Schreb. saeugh. p. 360. t. 92.*

THIS Fox, according to Mr. Schreber, inhabits North America, and the skins are often sent over to Europe. The crown of the head, neck, and back, are grey, mixed with black and white: the finer hairs being white-grey, the coarser varied with black and white like a porcupine's quill: the ears are externally yellow-brown, towards the tips mingled with black: about the ears and on the sides of the neck there is a fox-yellow patch: the throat, breast, and belly, are white: the legs externally yellow-brown: on the fore legs runs, from above inwards, a very small black and white mixed stripe, which terminates below in a broader black one: on the hinder legs a white stripe runs inwards, and underneath joins with a blackish one: the tail is brown, mixed with a little yellowish. In size this species is inferior to the common Fox. It is described by Schreber, who seems in some doubt whether it may not be a variety of the *Canis Virginianus* (Grey Fox of Catesby).



## VIRGINIAN FOX.

*Canis Virginianus.* *C. cauda recta, corpore ex cinereo albicante.*

*Lin. Syst. Nat. Gmel. p. 74.*

Whitish-grey, with strait tail.

Grey Fox. *Catesby's Carolina. 2. p. 78. pl. 78.*

Grey Fox. *Pennant Quadr. 1. p. 259.*

THE Virginian Fox seems to have been first described by Catesby. It resembles the common Fox in shape: has a sharp nose, long, sharp, upright ears, long legs, and a bushy tail: its colour is a whitish-grey, with a cast of red about the ears. It inhabits the warmer parts of North America, particularly Carolina and Virginia. It is said never to burrow under ground like the common Fox, but to inhabit hollow trees: it is destitute of the strong smell of the common Fox; is easily tamed, and is said to prey chiefly on poultry, birds, &c.

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 SILVERY FOX.

*Canis Argentatus.* *C. fuscus, pilis longioribus argenteo-albis.*

Dog of a deep brown-colour, with the longer hairs of a silvery white.

Silvery Dog. *Pennant Quadr. 1. p. 260.*

Le Renard argente. *Charlevoix Nouv. Franc. 1. p. 196.*

IN form this resembles the common Fox. It is of a deep brown-colour, with the longer or exterior hairs of a silvery white, giving a highly

èlegant appearance to the animal. It is an inhabitant of the forests of Louisiana, and preys on game.

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ARCTIC FOX.

*Canis Lagopus. C. cauda recta, palmis plantisque pilosissimus.*

*Lin. Syst. Nat. Gmel. p. 75.*

With strait tail, thick furred feet.

*Isatis. Buff. 13. p. 272.*

*Canis hyeme albus, æstate ex cinereo cærulescens. Bris.*

*Quadr. p. 174.*

*Valpes Cærulescens. Lin. Faun. Suec. 14.*

*Arctic Fox. Pennant Quadr. 1. p. 255.*

THIS species is inferior in size to the common Fox: its colour is a blueish-grey, which sometimes changes to perfect white: when young it is said to be of a dusky colour: the hair is extremely thick, long, and soft: the nose is sharp; the ears almost hid in the fur, and are short and rounded: the legs are short, and the toes are covered both above and below with a very thick soft fur: the tail is shorter than that of the common Fox, but more bushy. “ These animals (says Mr. Pennant) are found only in the Arctic regions, a few degrees within and without the polar circle. They inhabit Spitzbergen, Greenland, and Iceland: are only migratory in Hudson’s Bay, once in four or five years: are found again in Bering’s and Copper Isle, next to it, but none beyond: in Kamtschatka, and all the countries bordering on the frozen sea, which seems their great residence; comprehending a woodless track of heath land,

generally from 70 to 65 degrees latitude. They abound in Nova Zembla: are found in Cherry island, midway between Finmark and Spitzbergen; to which they must have been brought on islands of ice; for it lies above four degrees north of the first, and three south of the last: and, lastly, in the bare mountains between Lapland and Norway.

“ They are the hardest of animals, and even in Spitzbergen and Nova Zembla prowl for prey during the severity of winter. They live on the young wild geese, and all kinds of water-fowl; on their eggs; on hares or any lesser animals; and in Greenland (through necessity) on berries, shellfish, or whatsoever the sea throws up. But in the north of Asia, and in Lapland, their principal food is the Leming (a species of mouse). The Arctic Foxes of those regions are as migratory as those little animals; and when the last make their great migrations, the former pursue them in vast troops. But such removals are not only uncertain, but long: dependent on those of the Leming. The Foxes will, at times, desert their native countries for three or four years, probably as long as they can find any prey. The people of Jenisea imagine that the wanderers from their parts go to the banks of the Oby. Those found on Bering's and Copper isles were probably brought from the Asiatic side on floating ice: Steller having seen in the remoter islands only the black and brown Foxes: and the same only on the continent of America. They burrow in

the earth, and form holes many feet in length; strewing the bottom with moss. But in Spitzbergen and Greenland, where the ground is eternally frozen, they live in the cliffs of rocks: two or three inhabit the same hole. They swim well, and often cross from island to island in search of prey. They bark like Dogs; for which reason the Russians call them *Pefzti*. They are tame and inoffensive animals; and so simple, that there are instances of their standing by when the trap was baiting, and instantly after putting their heads into it. They are killed for the sake of their skins, both in Asia and Hudson's Bay: the fur is light and warm, but not durable: Mr. Graham informed me, that they have appeared in such numbers about the fort, that he has taken, in different ways, four hundred from December to March. He likewise assured me, that the tips of their tails are always black; those of the common Foxes are always white: and that he never could trace the breeding places of the former."

"The Greenlanders take them either in pitfalls dug in the snow, and baited with the Capelin fish, or in springs made with whalebone laid over a hole made in the snow, strewed over at bottom with the same kind of fish; or in traps made like little huts, with flat stones, with a broad one by way of door, which falls down (by means of a string baited on the inside with a piece of flesh) whenever the Fox enters and pulls at it. The Greenlanders preserve the skin for traffic; and, in

cases of necessity, eat the flesh. They also make buttons of the skins: and split the tendons, and make use of them instead of thread. The blue furs are much more esteemed than the white."

The above ample and excellent account is from Mr. Pennant's Arctic Zoology. Mr. Pennant thinks it probable that the Fox described by Molina, who observed it in Chili, was of this species, viz.

*Var. ?*

CHILI FOX.

*Canis Culpæus. C. cauda recta elongata, apice concolore lævi.*  
*Molina Hist. Nat. Chil. 4. p. 259.*

Dog with strait elongated tail, with tip of a similar colour.

THIS is supposed to be a variety of the Antarctic Fox. Its length from nose to tail is two feet and a half: its colour a deep brown: the tail is covered with short hair like that of a domestic dog: its voice is feeble, but has some resemblance to a bark. It inhabits the open countries of Chili, in which it forms its burrows. The Chilians call it Culpeu, from Culpem, signifying folly; it being considered as a silly animal.

## SURINAM DOG.

Canis Thous. *C. cauda deflexa levi, corpore subgriseo, subtus albo.* *Lin. Syst. Nat.*

Greyish Dog, white beneath, with deflected tail.

Surinam Dog. *Pennant Quadr. 1. p. 267.*

THIS species is said by Linnæus to inhabit Surinam. It seems to have been unknown to other naturalists. The very short description given by Linnæus states only that the body is grey, entirely white beneath; that it is of the size of a large Cat, and has upright ears of the same colour with the body; a verruca or wart above the eyes, on each cheek, and beneath the throat; and that the tongue is ciliated at the edges.

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 BENGAL FOX.

Canis Bengalensis. *C. subfuscus fascia faciei longitudinali nigra, orbitis albis, pedibus fulvis, cauda apice nigra.*

Dog of a light brown-colour, with a longitudinal black stripe down the face, white orbits, fulvous legs, and tail tipped with black.

Bengal Dog. *Pennant Quadr. 1. p. 260.*

THIS species inhabits Bengal. It is scarcely half the size of the European Fox. The face is cinereous; the body pale-brown; the legs fulvous; the tail tipped with black, and down the middle of the face runs a black stripe. The spaces round the eyes and the middle of the jaws are white. It is said to feed chiefly on roots and berries.

## SOOTY FOX.

*Canis Fuliginosus. C. cauda recta, corpore fuliginoso.*

Fuliginous D. with strait tail.

Sooty Fox. *Pennant Quadr. 1. p. 257.*

THIS in size and habit resembles the Arctic Fox, but is a distinct species. It is said to be numerous in Iceland, and is mentioned only by Mr. Pennant.

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 ANTARCTIC FOX.

*Canis Antarcticus. C. cinereo-fuscus villosus cauda apice alba.*

Cinereous-brown villous Fox, with the tail tipped with white.

Antarctic Fox. *Pennant Quadr. 1. p. 257.*

THIS, according to Mr. Pennant, is about a third part superior in size to the Arctic Fox, and has pretty much the habit of a Wolf in its ears, tail, and strength of limbs. The French, therefore, call it Loup-Renard, or Wolf-Fox. The head and body are cinereous brown; the hair more woolly than that of the common Fox; the ears short and pointed; their insides lined with white hairs: the legs are dashed with rust-colour; the tail dusky, more bushy, and shorter than that of the common Fox, and tipped with white. It is a native of the Falkland isles, and is said to be almost the only land quadruped of those distant spots. It resides near the shores; kennels like a Fox, and forms regular paths from bay to bay,

probably for the convenience of surprising water-fowl, on which it principally lives. It is a tame, fetid animal, and barks in the manner of a Dog.

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FENNEC.

Canis? Zerda. *C. albida, cauda recta, auribus amplissimis erectis intus roseis.*

Whitish Dog? with strait tail, and very large upright ears, internally rose-coloured.

Canis Cerdo. *C. cauda recta, corpore pallido, auriculis roseis erectis praelongis.* *Lin. Syst. Nat. Gmel. p. 75.*

The Fennec. *Bruce trav. vol. 5. p. 128.*

Animal Anonyme. *Buff. suppl. 3. p. 148. pl. 19.*

Zerda. *Pennant Quadr. 1. p. 267.*

THE Fennec or Zerda is a beautiful African and Asiatic animal, and is principally found in Arabia. Its general length is about ten inches, and its colour yellowish-white. The ears, which are uncommonly large, are internally of a bright rose-colour, edged with a broad margin of white hair, and the tip of the tail is black. An original drawing of the Fennec, in the possession of Mr. Bruce, was by him communicated to the Count de Buffon, and was inserted in the supplemental part of the Natural History of that celebrated author. It seems singular that an animal which is said to be by no means uncommon in many parts of the East, should be still unknown in European Museums. With respect to its real nature, and proper situation in systematic arrangement, perhaps no true determination can yet be made. On this subject Mr.





J. B. N. N. N. N.

Thomson, sculp.



Bruce and Mr. Pennant disagree in their opinions. Mr. Pennant ranks it under the genus *Canis*, and calls it *Zerda*, or “ Dog with a pointed visage; long whiskers; large bright black eyes; very large ears of a bright rose-colour, internally lined with long hairs: the orifice so small as not to be visible; probably covered with a valve or membrane: legs and feet like those of a dog: tail taper: colour between a straw and a pale brown: length from nose to tail ten inches: ears three and a half: tail six: height not five.” It inhabits (says Mr. Pennant) the vast deserts of Saara, which extend beyond Mount Atlas, and is called by the Moors *Zerda*: burrows in sandy ground, which shews the use of valves to the ears. It is so exceedingly swift that it is very rarely taken alive: feeds on insects, especially locusts: sits on its rump: is very vigilant, and barks like a Dog, but much shriller. Dr. Sparmann suspects that he saw it during his travels in Caffraria. Mr. Bruce, in the fifth or supplemental volume of his travels, assures us that the true name of the animal is not *Zerda* but *Fennec*, and this latter name, he conceives, may have been derived from φοινιξ, a palm, the principal residence of the creature being on the tops of palm-trees. Mr. Bruce, at different periods, kept two or three specimens of the Fennec, and the following is his account of the animal’s manners and appearance.

“ Though his favourite food seemed to be dates, or any sweet fruit, yet I observed he was very fond of eggs, and small bird’s eggs were first

brought him, which he devoured with great avidity; but he did not seem to know how to manage that of a hen, but when broke for him he ate it with the same avidity as the others. When he was hungry, he would eat bread, especially with honey or sugar. It was very observable, that a bird, whether confined in a cage near him, or flying across the room, engrossed his whole attention. He followed it with his eyes wherever it went, nor was he, at this time, to be diverted by placing biscuit before him; and it was obvious, by the great interest he seemed to take in its motions, that he was accustomed to watch for victories over it, either for his pleasure or his food. He seemed very much alarmed at the approach of a Cat, and endeavoured to hide himself, but shewed no symptom of preparing for any defence. I never heard he had any voice; he suffered himself, not without some difficulty, to be handled in the day, when he seemed rather inclined to sleep, but was exceedingly unquiet and restless so soon as night came, and always endeavouring his escape, and though he did not attempt the wire, yet with his sharp teeth he very soon mastered the wood of any common bird cage. From the snout to the anus he was about ten inches long, his tail five and a quarter, near an inch on the tip of it was black. From the point of his fore shoulder to the point of his fore toe, was two inches and seven eighths. He was two inches and a half from his occiput to the point of his nose, the length of his ears three

inches and three eighths. These were doubled, or had a plait on the bottom on the outside; the borders of his ears in the inside were thick covered with soft white hair, but the middle part was bare, and of a pink or rose colour. They were about an inch and half broad, and the cavities within were very large. It was very difficult to measure these, for he was very impatient at having his ears touched, and always kept them erect, unless when terrified by a Cat. The pupil of the eye was large and black, surrounded by a deep blue iris. He had strong, thick mustaches; the tip of his nose very sharp, black, and polished. His upper jaw reached beyond the lower, and had four grinders on each side of the mouth. It had six fore-teeth in each jaw: those in the under jaw are smaller than the upper: the canine-teeth are long, large, and exceedingly pointed: his legs are small, and his feet very broad; he has four toes armed with crooked, black sharp claws; those on his fore feet more crooked and sharp than behind. All his body is nearly of a dirty white, bordering on cream-colour; the hair of his belly rather whiter, softer, and longer than the rest, and on it a number of paps, but he was so impatient it was impossible to count them. He very seldom extended or stiffened his tail, the hair of which was harder. He had a very sly and wily appearance. But as he is a solitary animal, and not gregarious, as he has no particular mark of feelings about him, no shift or particular cunning which might occasion Solo-

mon to qualify him as wise, as he builds his nest upon trees, and not on the rock, he cannot be the Saphan of the scripture, as some, both Jews and Arabians, not sufficiently attentive to the qualities attributed to that animal, have nevertheless erroneously imagined."





LION.



## FELIS. CAT.

*Generic Character.*

<i>Dentes Primores intermedii</i>		<i>Front-teeth</i> six; the interme-
<i>æquales.</i>		diate ones equal.
<i>Molares terni.</i>		<i>Grinders</i> three on each side.
<i>Lingua retrorsum aculeata</i>		<i>Tongue</i> aculeated backwards.
<i>Ungues retractiles.</i>		<i>Claws</i> retractile.

## LION.

*Felis Leo. F. cauda elongata, corpore helvolo. Lin. Syst. Nat. p. 60.*

Cat of a pale tawny or dun colour, with long tail, flocky at the tip.

*F. cauda elongata floccosa, thorace jubato. Lin. Syst. Nat. ed. 6. p. 4.*

*Felis cauda in floccum desinente. Briss. Quadr. 1. p. 194.*

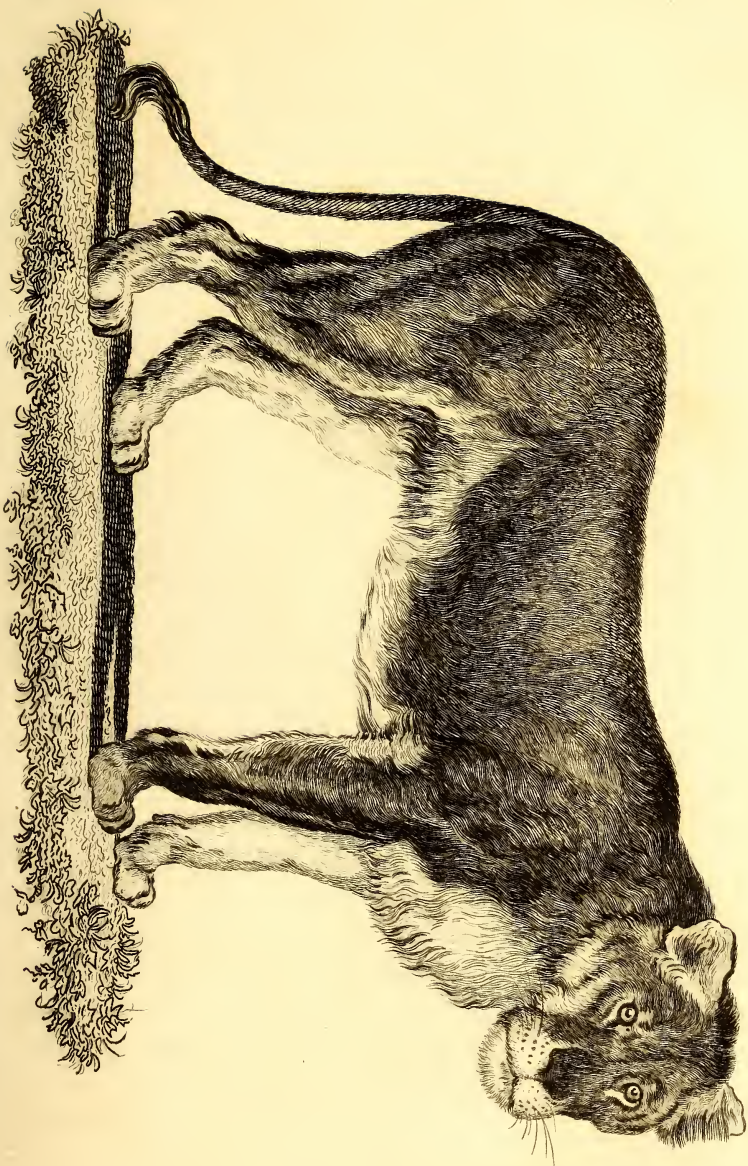
*Leo. Gesn. Quadr. 572. Aldr. dig. 2.*

*Lion. Buff. 9. p. 1. pl. 2.*

*Lion. Pennant Quadr. 1. p. 274.*

**T**HE Lion is principally an inhabitant of Africa, but is also found, though far less plentifully, in the hotter regions of Asia. It is, however, in the interior of Africa that he exerts his greatest ravages, and reigns superior among the weaker

quadrupeds. A Lion of the largest size has been found to measure about eight feet from the nose to the tail; and the tail itself about four feet: the general colour is a pale tawny, still paler or more inclining to white beneath: the head is very large, the ears rounded, the face covered with short or close hair, the upper part of the head, the neck, and shoulders coated with long shaggy hair, forming a pendent mane: on the body the hair is short and smooth: the tail is terminated by a tuft of blackish hair. The Lioness, which is smaller than the Lion, is destitute of the mane, and is of a whiter cast beneath. The Lion, like the Tiger, frequently conceals himself, in order to spring on his prey; bounding to the distance of a great many feet, and seizing it with his claws. His strength is prodigious; it has even been affirmed, that a single stroke of his paw is sufficient to break the back of a horse; and that he carries off with ease a middle-sized ox, or Buffalo. He does not often prey in open sunshine, but commences his depredations at the close of day. The roaring of the Lion, when in quest of prey, resembles the sound of distant thunder; and, being re-echoed by the rocks and mountains, appals the whole race of animals, and puts them to sudden flight; but he frequently varies his voice into a hideous scream or yell: he is supposed to be destitute of a fine scent, and to hunt by the eye alone. The Lion is commonly said to devour as much as will serve him for two or three days; and, when satiated with food, to remain in a state of



LIONESS.



retirement in his den, which he seldom leaves, except for the purpose of prowling about for his prey: his teeth are so strong that he breaks the bones with perfect ease, and often swallows them together with the flesh: his tongue, as in other animals of this genus, is furnished with reversed prickles; but they are so large and strong in the Lion, as to be capable of lacerating the skin. The Lioness is said to bring forth in the spring, in the most sequestered places, and to produce but one brood in the year: the young are four or five in number, which the parent nurses with great assiduity, and attends in their first excursions for prey. When brought into Europe, Lions have been known to breed even in a state of confinement; instances of which are recorded by some of the older naturalists. In the tower of London also examples of a similar nature have occurred. The young animals are scarce so large as small pug dogs, and are said to continue at the teat about the space of a year, and to be five years in coming to maturity. If we may judge from some specimens of young Lions in the Leverian Museum, which are said to have been whelped in the tower, their size seems scarce to exceed that of a half-grown kitten: indeed, some of the ancient writers have affirmed, that the young Lions are hardly larger than Weasels.

“ The Lion (says Buffon), when taken young, and brought up among domestic animals, is easily accustomed to live, and even to sport innocently

with them. He is gentle and caressing to his master, and if he sometimes resumes his natural ferocity, he seldom turns his rage against his benefactors. He has also been known to disdain the insults and to pardon the offensive liberties of the weaker animals. When led into captivity, he discovers symptoms of uneasiness without anger or peevishness; on the contrary, he assumes the habits of gentleness, obeys his master, caresses the hand that feeds him, and sometimes spares the animals that are thrown to him for prey. By this act of generosity he seems to consider himself as for-ever bound to protect them; he lives peaceably with them, allows them a part of his food; and will rather submit to the inconveniences of hunger than destroy the fruits of his own beneficence."

The Count de Buffon, reasoning from the size and constitution of the Lion, and the time required for his arriving at full growth, concludes that he "ought to live about seven times three or four years, or nearly to the age of twenty-five." He adds, that those which have been kept at Paris have lived sixteen or seventeen years. If, however, we might depend on the commonly received accounts of those which have been kept in the tower of London, we might mention the Lion known by the name of Pompey, which is said to have lived no less than seventy years in his state of captivity; and another in the same receptacle, which is reported to have lived sixty-three years.

It must be acknowledged, however, that, from the general constitution of the Lion, one would not suppose him to be a very long-lived animal.

Lions have sometimes constituted a part of the established pomp of royalty in the eastern world. The monarch of Persia, as we are informed by Mr. Bell in his travels, had, on days of audience, two large Lions chained on each side the passages of the hall of state; being led there, by proper officers, in chains of gold.

The Romans, struck with the magnificent appearance of these animals, imported them in vast numbers from Africa, for their public spectacles. Quintus Scævola, according to Pliny, was the first in Rome who exhibited a combat of Lions; but Sylla the dictator, during his prætorship, exhibited a hundred Lions; and, after him, Pompey the Great exhibited no less than six hundred in the grand circus, viz. three hundred and fifteen males, and the rest females; and Cæsar the dictator four hundred. Pliny also tells us, that the first person in Rome who caused them to be yoked, so as to draw a carriage, was Mark Antony, who appeared in the streets of Rome in a chariot drawn by Lions, accompanied by his mistress Cytheris, an actress from the theatre. A sight, says Pliny, that surpassed in enormity even all the calamities of the times!

“ Leonum simul plurium pugnam, Romæ princeps dedit Q. Scævola P. filius in curuli Ædilitate. Centum autem jubatorum primus omnium L. Sylla, qui postea dictator fuit in Prætura.

Post eum Pompeius Magnus in circo DC. in iis jubatorum cccxv. Cæsar Dictator cccc.

“Jugo subdidit eos, primusque Romæ ad currum junxit M. Antonius, et quidem civili bello cum dimicatum esset in Pharsalicis campis, non sine quodam ostentu temporum, generosos spiritus jugum subire illo prodigio significante; nam quod ita vectus est cum mima Cytheride, supra monstra etiam illarum calamitatum fuit.”

In modern times the Lion is said to be often hunted with dogs, by the colonists about the Cape of Good Hope, and it is added that twelve or fifteen dogs are sufficient for the purpose. The Lion, after being roused, runs for some time; then stops and shakes his mane, as if in defiance of the dogs, who, rushing all at once upon him, soon destroy him; two or three of the pack, however, generally falling victims to the first strokes of his paws.

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TIGER.

Felis Tigris. *F. cauda elongata, corpore maculis omnibus virgatis.*  
*Lin. Syst. Nat. p. 61.*

C. with elongated tail, and body marked with long transvers streaks.

Tigris. *Gesn. Quadr. 936. Aldr. dig. 101.*

Felis flava, maculis longis nigris variegata. *Briess. Quadr. p. 195.*

Tigre. *Buff. 9. p. 129. pl. 9.*

Tiger. *Pennant Quadr. 1. p. 277.*

THE Tiger, the most beautiful, but most destructive of quadrupeds, is a native of the warmer





TIGER.



parts of Asia, and is principally found in India and the Indian islands. The species extends, however, as far as China, and Chinese Tartary, the lake Ural, and the Altaic Mountains. Its colour is a deep tawny, or orange-yellow; the face, throat, and under side of the belly, being nearly white: the whole is traversed by numerous long black stripes, forming a bold and striking contrast with the ground-colour. About the face and breast the stripes are proportionally smaller than on other parts: the tail is annulated with black, and is shorter than the body. There seems to be some variation in the proportion and number of the stripes in different individuals; and the ground-colour is more or less bright, according to various circumstances of age and health in the respective animals. Linnæus calls the Tiger "*pulcherrimus quadrupedum.*" We must not judge of the elegance of this animal's robe from the specimens which are sometimes seen in museums, or even from such living ones as by long confinement, and an alteration of climate, have lost the native brilliancy of their colours. When seen in perfection, and before its health has been impaired by confinement, it is scarce possible to conceive a more elegantly variegated animal than the Tiger: the bright and intense orange-yellow which constitutes the ground colour; the deep and well-defined stripes of black, in some parts double; in others single, the pure white of the cheeks and lower part of the sides, over which a part of the black striping is continued, form, al-

together, an appearance far superior in beauty to the skin of the Zebra, or that of any other regularly-marked quadruped, not excepting even the Panther itself. In its general size the Tiger is inferior only to the Lion, and has been seen even larger, viz of the length of fifteen feet from the nose to the tip of the tail. The largest are those of India, and are termed Royal Tigers; but this distinction is supposed to relate merely to the size of the animal; there being only one species of Tiger, though there may perhaps be some races larger than others.

Of so fierce and sanguinary a disposition is the Tiger as to surpass in rapacity every other wild beast, and is, therefore, considered as the most dreadful scourge of the hotter regions of Asia. The Lion is commonly supposed to exhibit a certain degree of generosity of disposition, and to prey in a less malignant and cruel manner. He is also, when taken into a state of confinement, capable of being tamed, and rendered mild and placid to his keepers; but the Tiger is not to be divested of his natural ferocity of character, and in confinement he generally exhibits all the symptoms of malignity. His method of seizing his prey is by concealing himself from view, and springing with a horrible roar on his victim, which he carries off, and tears in pieces, after having first sucked out the blood. The voice of the Tiger, in the act of springing on his prey, is said to be hideous beyond conception. Even a Buffalo has been thus seized by a Tiger, and carried off with such seem-

ing ease as to appear scarce an impediment to the animal's flight. It is affirmed, that if the Tiger happens to miss his aim, he does not pursue his prey, but, as if ashamed of his disappointment, runs off. In the beginning of the present century (says Mr. Pennant), a company, seated under the shade of some trees, near the banks of a river in Bengal, were surprised by the unexpected sight of a Tiger preparing for its fatal spring; when a lady, with almost unexampled presence of mind, furl'd a large umbrella in the animal's face, which instantly retired, and thus gave an opportunity of escaping from so terrible a neighbour. Another party had not the same good fortune, but in the height of their entertainment lost, in an instant, one of their companions, who was seized and carried off by a Tiger. But the fatal accident which so lately occurred in the East Indies must be still fresh in the memory of all who read the dreadful description given by an eye-witness of the scene. "We went (says the narrator) on shore on Sangar island, to shoot deer, of which we saw innumerable tracks, as well as of Tigers; notwithstanding which, we continued our diversion till near three o'clock, when, sitting down by the side of a jungle to refresh ourselves, a roar like thunder was heard, and an immense Tiger seized on our unfortunate friend\*, and rushed again into the jungle, dragging him through

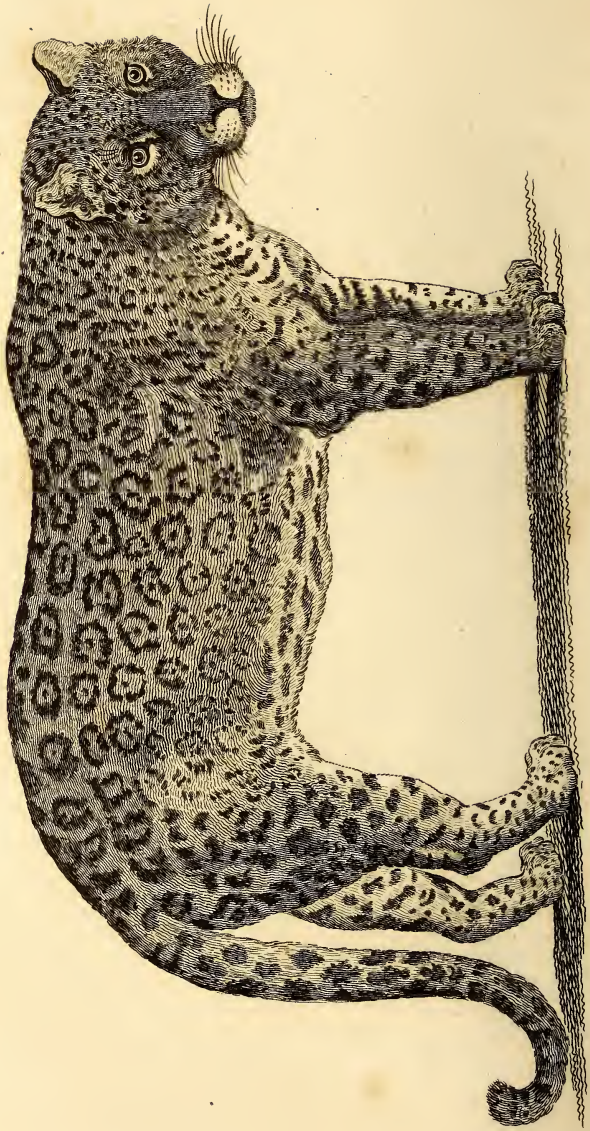
\* Mr. Monro, son of Sir Hector Monro, bart. This fatal event took place in the year 1792.

the thickest bushes and trees, every thing giving way to his monstrous strength; a Tigress accompanied his progress. The united agonies of horror, regret, and fear, rushed at once upon us. I fired on the Tiger: he seemed agitated: my companion fired also, and, in a few moments after this, our unfortunate friend came up to us, bathed in blood. Every medical assistance was vain, and he expired in the space of twenty-four hours, having received such deep wounds from the teeth and claws of the animal as rendered his recovery hopeless. A large fire, consisting of ten or twelve whole trees, was blazing by us at the time this accident took place; and ten or more of the natives with us. The human mind can scarce form any idea of this scene of horror. We had hardly pushed our boat from that accursed shore, when the Tigress made her appearance, almost raging mad, and remained on the sand all the while we continued in sight."

The Tiger is described by Pliny as an animal of tremendous swiftness: "*animal tremendæ velocitatis.*" This, however, is said to be not so applicable to the pace of the animal in running, as to the velocity of his spring when darting on his prey. There can be little doubt, however, that the Tiger is in reality an animal of great swiftness, and Mr. Pennant adduces the authorities of two faithful travellers, viz. Pere Gerbillon and Mr. Bell, in confirmation of Pliny's account.

The Tiger has been known to attack even a Lion, and both animals have perished in the conflict. The Tigress, like the Lioness, produces





PANTHER.



four or five young at a litter: she is at all times furious, but her rage rises to the utmost extremity when robbed of her young. She then braves every danger, and pursues her plunderers, who are often obliged to release one in order to retard her motion: she stops, takes it up, and carries it to the nearest cover, but instantly returns, and renews her pursuit, even to the very gates of buildings, or the edge of the sea, and when her hope of recovering them is lost, she expresses her agony by hideous howlings, which excite terror wherever they reach.

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PANTHER.

*Felis Pardus. F. cauda elongata, corpore maculis superioribus orbiculatis, inferioribus virgatis. Lin. Syst. Nat. p. 61.*

C. with elongated tail, and yellow body marked with orbicular spots above, and lengthened ones below.

*Felis ex albo flavicans, maculis nigris in dorso orbiculatis, in ventre longis. Briss. Quadr. p. 194.*

*Panthera, Pardus, Pardalis, Leopardus. Gesn. Quadr. p. 824.*

*Panthere. Buff. 9. p. 151. pl. 11, 12.*

*Panther. Pennant Quadr. 1. 280.*

NEXT to the Tiger the Panther is the most conspicuous species in this genus; measuring about six feet and a half, and sometimes near seven feet from nose to tail, which is itself about three feet long. The colour of the Panther is a bright and beautiful tawny-yellow, thickly marked all over the upper parts of the body, shoulders, and thighs, with roundish black spots, disposed

into circles, consisting of four or five separate spots; and there is commonly, but not always, a central spot in each circle; in which particular, as well as in its superior size, and deeper colour, the Panther differs from the Leopard, which has very rarely any central spots in its circular markings. On the face and legs the spots are single, and along the top of the back is a row of oblong spots, which are still longer as they approach the tail. The breast and belly are white; the former marked with transverse dusky stripes; the latter and the tail with large irregular black spots. The Panther is principally found in Africa, and is to that country what the Tiger is to Asia, with this alleviating circumstance, that it is supposed to prefer the destruction of other animals to that of mankind. Its manner of seizing its prey resembles that of the Tiger; lurking near the sides of woods, &c. and darting forward with a sudden spring. It is of a highly ferocious nature, and scarce to be tamed. These animals and the Leopard were the *Varii* and *Pardi* of the ancients; and one would think (says Mr. Pennant) that the Romans would have exhausted the deserts of Africa by the numbers they drew from thence for their public spectacles. Scaurus exhibited at one time a hundred and fifty Panthers; Pompey the Great, four hundred and ten; and Augustus, four hundred and twenty. It has been doubted whether the Panther and the Leopard were natives of America as well as of the old continent; but this question seems now to be decided in the ne-

gative. In the twelfth edition of the *Systema Naturæ* the Panther and Leopard seem to be confounded by Linnæus himself, who appears to have considered them as the same species, under the name of *Pardus*; while, at the same time, his specific character, as the Count de Buffon observes, is such as to agree properly with no animal of the whole genus, viz. *F. cauda elongata, corpore maculis superioribus orbiculatis, inferioribus virgatis*. It may be contended, perhaps, that Linnæus meant by this expression to characterize the obscurely subtransverse streaks on the breast of the animal; but it must be acknowledged that even then his descriptive character, though continued in the Gmelinian edition of the work, is by no means sufficiently expressive; and, like many others, seems to require alteration and improvement. It may, perhaps, have happened that the spots on the under part of the sides, in some specimens, may have appeared somewhat confluent, so as to produce the appearance of an indistinct kind of streaks; and something approaching to this may be observed in the figure of Buffon, which, on account of its general excellence, is represented in the present work. It is remarkable that the specific character of the Panther, as given by Brisson, turns upon the same circumstance.

Thus much may be observed of short specific characters in general; that, though highly useful, they are not always to be depended upon, and are only to be received with a proper degree of allow-

ance: it must also be added, that the major part of those composed by Linnæus are remarkable for their truth and exactitude.

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LEOPARD.

*Felis Leopardus F. cauda mediocri, corpore fulco, maculis subcoadunatis nigris. Lin. Syst. Nat. Gmel. p. 77.*

C. with yellow body marked with subcontiguous black spots, disposed in circles.

Leopard. *Buff. 9. p. 151. pl. 14.*

Leopard. *Pennant Quadr. 1. p. 282.*

THIS animal is best distinguished from the Panther by its paler yellow-colour, its smaller size, and the somewhat closer disposition of the spots which form its ocellated markings; but to a mere general observer, the two animals are so extremely alike as to be frequently mistaken for each other. A true distinctive mark between the Leopard and Panther is by no means easy to communicate, either by description, or even by figure. The principal difference is in size; the Leopard being considerably the smallest of the two; the colour of the Panther is richer or more fulvous than that of the Leopard; but this too is liable to a degree of uncertainty: the ocelli or rounded marks on the Panther are larger, and more distinctly formed; but the character given by Mr. Pennant of the Panther, viz. a central spot in the middle of each, is by no means a permanent or truly distinctive mark; since the



LEOPARD.



spots in some specimens (perhaps the males) are quite plain in the middle; while, on the other hand, in some specimens of the Leopard one or more small central spots are visible. As to the subtransverse marks about the neck or breast, they seem to be full as distinct in the Leopard as in the Panther; and, perhaps, upon the whole, we must be content with distinguishing the two species by the size, and by the fulvous-yellow of the Panther, and the clearer or paler yellow of the Leopard. The general length of this species, from nose to tail, is four feet; of the tail two and a half. It is a native of Senegal and Guinea, as well as of many other parts of Africa: it also occurs in several parts of Asia, viz. in Persia, India, China, &c. In its manners it resembles the Panther.

## VAR. ?

A variety of this species, of a dusky black, marked with spots of a deeper or more glossy black, and perfectly resembling in disposition those of the common Leopard, is found in Bengal. In one of this kind brought to England some years ago, the fur, when a little turned aside, exhibited a slight tinge of the natural or general colour.

## LESSER LEOPARD.

THIS, according to Mr. Pennant, who seems its only describer, is not half the size of the common Leopard. Its colour is a bright yellow, spotted in the manner of the common Leopard, in circles: on each side the upper lip is a great black spot: the face is spotted with black: the chin is white; the breast marked with small spots; the belly white, spotted with black: the tail shorter in proportion than in the common Leopard, and tapering to a point. Supposed to be a native of India. It was kept in the Tower, and seemed a good-natured animal.

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HUNTING LEOPARD.

*Felis Jubata?* *F. cauda mediocri, corpore fulvo, maculis nigris, collo jubato.* *Lin. Syst. Nat. Gmel. p. 79.*

C. of a pale fulvous colour, with round black spots, tail of moderate length, and slightly-maned neck.

Le Jaguar ou le Leopard. *Buff. suppl. 3. p. 218. pl. 38.*

Le Guepard. *Buff. 13. p. 249.*

*Felis jubata.* *Schreber. p. t. 105.*

Hunting Leopard. *Pennant Quadr. 2. p. 284.*

THIS animal is about the size of a large greyhound, and of a long make, with narrow chest, and long legs. It is a native of India, where it is said to be tamed, and used for the chase of Antelopes and other animals; being carried into the





HUNTING LEOPARD.



field chained and hooded, and, at the proper time, is loosed, when it is said to steal along the ground at first, concealing itself, till it gains a proper advantage, and then to dart on the animal it pursues, with several repeated springs. If it happens to miss its prey, it returns to the call of its master. The specimen of this animal in the Leverian Museum is of a pale fulvous-yellow, with the cheeks, neck, and breast, white: the body whitish beneath; with few obscure dusky spots. All the upper parts are very thickly spotted with small and perfectly round spots, with still smaller ones intermixed: the spots are largest on the outside of the thighs, where the smaller intermixed ones are scarce larger than peas, or proportionally less than on the other parts: the nose is black: from each eye is a blackish line, running down to the corners of the mouth: the tail is spotted like the body, but towards the tip are two or three obscure bands; and the tip itself is blackish: the insides of the legs are thickly spotted. There seems to be no distinct appearance of a mane in this specimen; neither is there the slightest appearance of it in Buffon's plate, which is here represented; but it should be observed, that the spots in this figure seem much less accurately rounded than those in the Leverian specimen, as well as less numerous in proportion. In Mr. Schreber's figure of this animal the mane seems extremely conspicuous.

## ONCE.

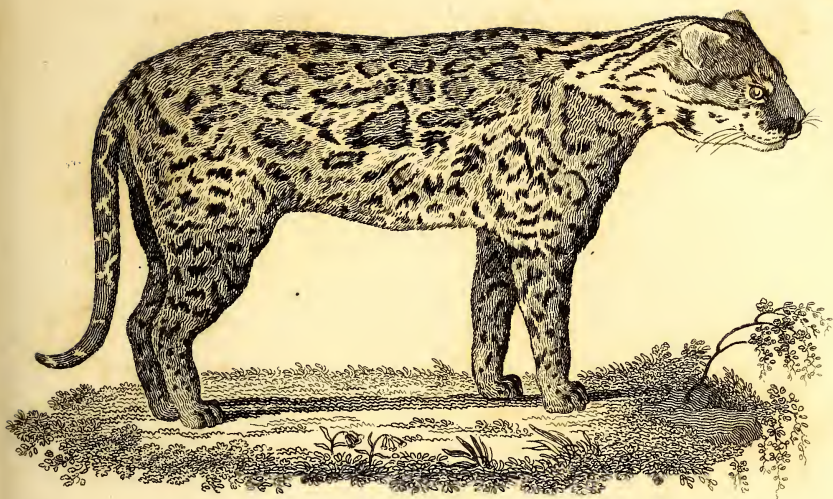
*Felis Uncia. F. cauda elongata, corpore albido, maculis irregularibus nigris. Lin. Syst. Nat. Gmel. p. 77.*

C. with long tail and whitish body, with irregular black marks.

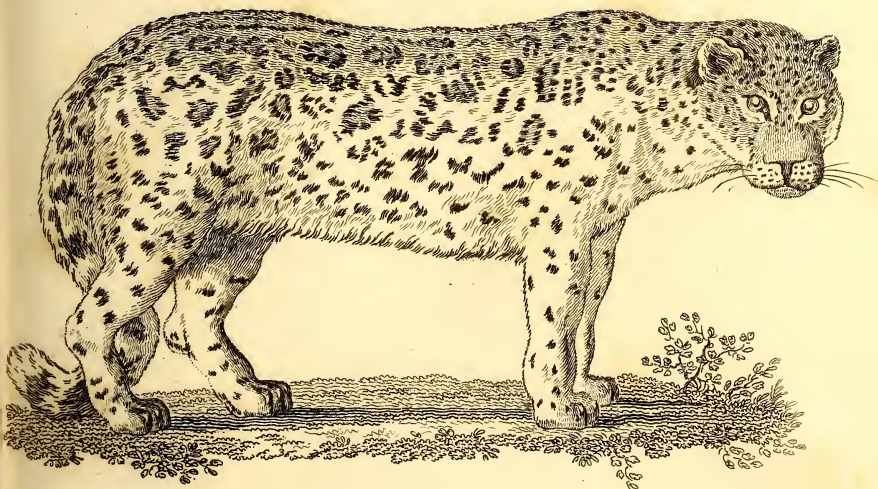
L'Once. *Buff. 9. p. 151. pl. 13.*

Once. *Pennant Quadr. 1. p. 285.*

THIS species is scarce inferior in size to the Leopard. Its colour is dull white, with a slight yellowish or tawny cast, and the whole is scattered over with differently sized spots and markings of black. About the head these spots are small, numerous, and roundish; along the back they form a kind of abrupt or irregularly interrupted stripes, while on the sides and limbs they are variously shaped, forming in some places angular and in others somewhat round or oval marks, with a central space included, and on the legs and tail they are black and scattered. In its general form the animal seems much allied to the Leopard. It seems not to have been distinctly described by any modern author till the time of Buffon; but it is supposed to have been known to the ancients, and to have been the smaller Panther of Oppian, and the Panthera of Pliny. It should be here observed, that the name Uncia, Once, or Ounce, has, by Gesner and some other naturalists; been applied to the Leopard; and this confusion of names among naturalists has greatly tended to obscure the real knowledge of this dif-



JAGUAR.



ONCE.



ficult genus. It is a native of several parts of Africa and Asia.

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JAGUAR.

*Felis Onca. F. cauda mediocri, corpore flavescente, ocellis nigris rotundato-angulatis medio flavis. Lin. Syst. Nat. p. 61.*

C. with tail of moderate length, and yellowish body, with black ocellated roundish-cornered spots with yellow central spaces.

*Felis flavescens, maculis nigris orbiculatis, quibusdam rosam referentibus variegata Briss. Quadr. p. 196.*

*Pardus aut Lynx brasiliensis, Jaguara dictus, Lusitanis Onza. Raii syn. p. 168.*

Brasilian Cat. *Pennant Quadr. 1. p. 286.*

Le Jaguar. *Buff. 9. p. 201. pl. 18.*

THE Jaguar, sometimes called the American Tiger, is a native of the hotter parts of South America, and is considered as a very fierce and destructive animal. Its manners are said to resemble those of the Tiger, lying in ambush for its prey. It is about the size of a Wolf, or even larger. Its ground colour is a pale brownish-yellow, variegated on the upper parts with streaks and open oblong spots or markings of black; the top of the back being marked with long interrupted stripes, and the sides with rows of regular open marks: the thighs and legs are also variegated with black spots but without central spaces: the breast and belly are whitish: the tail not so long as the body; the upper part marked with large black spots in an irregular manner, the lower with smaller spots.

## OCELOT.

*Felis Pardalis. F. cauda elongata, corpore maculis superioribus virgatis, inferioribus orbiculatis. Lin. Syst. Nat. Gmel. p. 78.*

Longish-tailed C. with long stripe-shaped spots on the upper parts, and round ones on the lower.

*Felis rufa, in ventre ex albo flavicans, maculis nigris, in dorso longis, in ventre orbiculatis variegata. Briss. Quadr. p. 199.*

Catus Pardus, v. Catus ferus Americanorum. *Raii Quadr. 169. Ocelot. Buff. 13. t. 35, 36.*

Mexican C. *Pennant Quadr. 1. p. 287.*

THE Ocelot or *Pardalis* is certainly one of the most beautiful of the present genus. In size it is almost equal to the Jaguar. Mr. Pennant describes it as about four times the size of a large Cat. The ground-colour of the male is a bright reddish tawny above, nearly white on the lower part of the sides, breast, limbs, and belly. Several large, long, and variously inflected broad stripes, of a deeper or richer tinge than the ground-colour, are disposed over the upper parts of the body; these stripes are edged with black, and have also several differently shaped black spots in the middle part. The head is streaked and spotted with black; and the upper as well as under parts of the limbs and the belly marked in a beautiful manner with small and numerous round spots: the tail is patched or spotted also. The colours of the female are less vivid, and more inclining to ash-colour. This is an extremely ferocious animal, and inhabits the hotter parts of South America, where it is said to com-





CAPE CAT.



OCELOT.



mit great ravages among cattle, &c. It is also said to be untameable in a state of captivity. It is well figured in Buffon. The present figure is from a beautiful specimen in the Leverian Museum.

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 CINEREOUS CAT.

Cinereous Cat. *Pennant Quadr.* 1. p. 289.

THIS seems to be described only by Mr. Pennant, who informs us that it is about the size of the Ocelot, and is a native of Guinea. It is of a cinereous colour, palest on the legs and belly; the irides are hazel; the tip of the nose red; ears sharp and rounded; black on the outside, grey within: from the nose to the eye on each side a black line; and above and beneath each eye a white one: sides of the mouth white, with four rows of small black spots: from the hind part of the head to the back and shoulders run some long, narrow, hollow stripes: along the top of the back two rows of oval black spots: the marks of the sides long, hollow, and irregular, extending from the shoulders to the thighs: shoulders both barred and spotted: legs and belly only spotted: tail not so long as the body, with large spots above, and small beneath. This species according to Mr. Pennant's description as given above, seems to approach extremely near to the Ocelot, the female of which inclines much to

ash-colour; but being expressly said to be a native of Guinea, we cannot suppose it the same species.

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PUMA.

Felis Puma. *F. cauda elongata, corpore immaculato fulvo, subtus albido.*

C. with long tail, and reddish-brown body, whitish beneath.

Felis concolor. *F. cauda elongata, corpore immaculato fulvo.*

*Lin. Syst. Nat. Gmel. p. 79.*

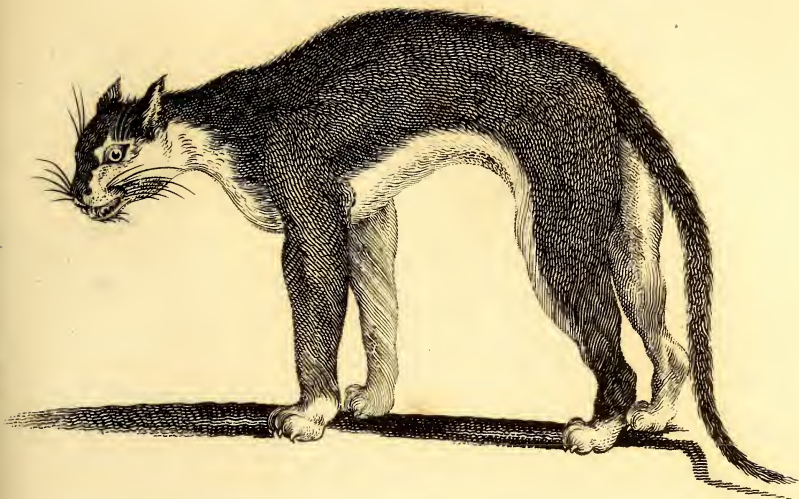
Tigris fulvus. *Barrere Fr. æquin. p. 166.*

Puma, v. Leo Americanus. *Hernand. mex. p. 518.*

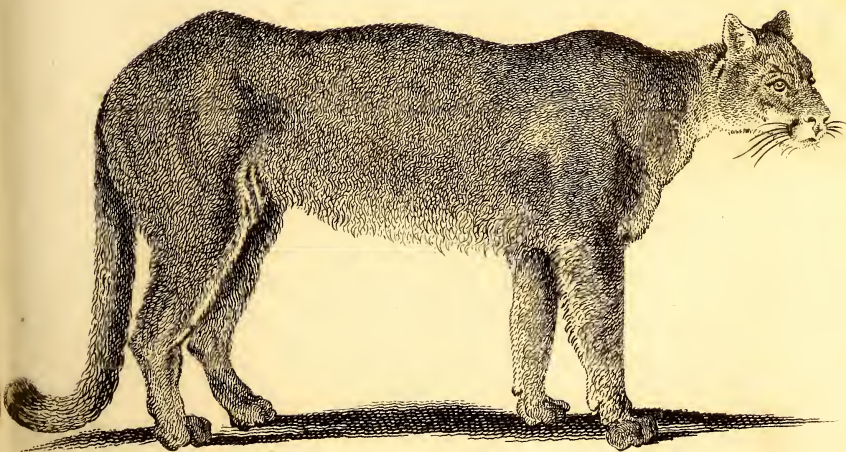
Cougouar. *Buff. 9. p. 216. pl. 19.*

Puma. *Pennant Quadr. 1. p. 289.*

THE Puma is the largest of the American beasts of prey, measuring five feet or more from nose to tail; the tail itself measuring about two feet eight inches. It is a long-bodied animal, and stands high on its legs. Its colour is a pale brownish-red, with a slight dusky cast on some parts: the chin is white; the breast and belly ash-colour; and the insides of the legs are of the same colour: the tail of a dusky-ferruginous tinge, with a black tip. It is a native of many parts of America, both North and South, occurring from Canada to Brasil. The Puma is an animal of great strength and fierceness, preying on cattle, deer, &c. Sometimes it is said to climb trees, and watch the opportunity of springing on such animals as happen to pass beneath.



BLACK TIGER.



PUMA.



## BLACK TIGER.

*Felis Discolor.* *F. cauda elongata, corpore nigro, subtus albido.*

**C.** with long tail, and body black above, whitish below.

*Felis cauda elongata, corpore potissimum nigro.* *Lin. Syst. Nat.*

*Gmel. p. 79.*

*Felis nigra.* *Erxleb. syst. mammal. p. 512.*

Le Cougouar noir. *Buff. suppl. 3. p. 223. pl. 42.*

Jaguar or Black Tiger. *Pennant Quadr. 1. p. 290. pl. 58.*

THIS, like the former species, is a native of America, and is considered as a very destructive and ferocious animal. It is about the size of a heifer of a year old; and is entirely of a deep brownish-black colour on the upper parts, and pale grey or whitish beneath: the upper lip and the paws are also whitish: the tail is of the same dusky colour with the body.

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 MARGAY.

*Felis Tigrina.* *F. cauda elongata, corpore fulvo nigro striato maculatoque, subtus albido.* *Lin. Syst. Nat. Gmel. p. 80.*

**C.** with long tail and fulvous body striped and spotted with black, whitish beneath.

*Felis ex griseo flavescens, maculis nigris variegata.* *Briss. Quadr. 1. p. 193.*

*Felis fera tigrina.* *Barr. Fr. equin. p. 152.*

Mergay. *Buff. 13. p. 248. pl. 38.*

Cayenne Cat. *Pennant Quadr. 1. p. 292.*

THE Margay is a native of South America, and is about the size of a common Cat. The ground-colour is a bright tawny: the face striped down-

wards, with black; the shoulders and body marked both with stripes and large oblong black spots; on the legs the spots are small: the breast, belly, and insides of the limbs, are whitish: the tail is long, and marked with black, grey, and fulvous. It resides principally on trees, preying on birds: it is said to breed in the hollows of trees, and to bring but two young at a birth. It is very fierce and untameable.

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CAPE CAT.

*Felis Capensis. F. cauda subelongata fusca nigro maculata, corpore fulvo supra maculis virgatis infra orbicularibus, auriculis nudis macula lunata alba. Lin. Syst. Nat. Gmel. p. 81.*

Fulvous Cat, with subelongated tail annulated with black; the body marked with black stripes above; with roundish and lunated black spots on the other parts, and a lunated white bar on the ears.

Cape Cat. *Pennant Quadr. 1. p. 291.*

*Felis Capensis. Cape Cat. Miller Cimelia Physica. pl. 39.*

THIS elegant species inhabits the neighbourhood of the Cape of Good Hope, and is described in the Philosophical Transactions, vol. 71, by Dr. Forster. In its manners it seems extremely to resemble the common Cat; frequenting trees, and preying on the smaller animals. The specimen described by Dr. Forster was not more than nine months old, and had been taken quite young. It was perfectly tame and gentle, and had all the actions and manners of a domestic Cat. Dr. Forster imagines it to be the same species with



the 'Nussi described by Labat, who calls it a sort of wild Cat of the size of a Dog, with a coat striped and varied like that of a Tiger. The length of a skin measured by Mr. Pennant was near three feet from nose to tail; but Dr. Forster's specimen seems to have been much smaller. The head, however, figured in Mr. Miller's plate seems to agree with the size mentioned by Mr. Pennant. Mr. Miller's figure represents this animal extremely brilliant in colour, viz. of the brightest fulvous yellow, with jet-black stripes and spots: the chin, throat, and breast, pale ash-colour: along the back are black stripes: on the sides of the neck, and on the breast, numerous small crescent-shaped spots pointing upwards: on the legs numerous roundish spots; and the tail very strongly and distinctly annulated with black and yellow.

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 BENGAL CAT.

Bengal Cat. *Pennant Quadr. 1. p. 292.*

THIS, which is described by Mr. Pennant from a living specimen, is rather less than a common Cat, and more elegantly made. Colour of the head, upper jaw, and sides of the neck, back, and sides, a beautiful pale yellowish-brown: the head and face striped downwards with black: along the back three rows of short stripes of the same colour, pointing towards the tail: behind each shoulder, to the belly, is a black line: chin and

throat white, surrounded with a semicircle of black: breast, belly, and inside of limbs, white: the spots on those parts, the legs, and rump, round: tail long, full of hair, brown and annulated with black.

Native of Bengal. This animal produced a mixed breed with the common Cat; the offspring being marked in a nearly similar manner, but on a cinereous ground. This species has no dread of water, but will readily plunge into it and swim.

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MANUL.

Felis Manul. *F. cauda elongata, nigro-annulata, capite punctis et fasciis duabus lateralibus nigris insignito.* Lin. Syst. Nat. Gmel. p. 81. Pall. itin. 3. p. 692.

C. with elongated tail annulated with black, and the head marked with spots and two lateral bands of black.

Manul. Pennant Quadr. 1. p. 294.

THIS species inhabits the middle part of northern Asia, and was first described by Dr. Pallas. It is of the size of a Fox, and is of a strong and robust make. Its colour is tawny, but the crown of the head is speckled with black, and the cheeks are marked by two dusky lines running obliquely from the eyes: the feet are striped obscurely with dark lines: the tail is longer than that of a domestic Cat, and is thickly beset with hair, and encircled with ten black rings, of which the three next to the tip are placed so near as almost to touch each other.

## COMMON CAT.

*Felis Catus. F. cauda elongata fusco-annulata, corpore fasciis nigricantibus; dorsalibus longitudinalibus tribus, lateralibus spiralis.* *Lin. Syst. Nat. p. 62.*

Yellowish-grey C. with dusky bands; three on the back longitudinal; the lateral ones spiral; the tail barred with dusky rings.

*Felis vulgo Catus. Gesn. Quadr. 98. Aldr. dig. 564.*

*Felis pilis ex fusco-flavicante et albido variegatis, cauda annulis alternatim nigris et ex sordide albo flavicantibus.* *Briss. Quadr. 192.*

Le Chat sauvage, &c. &c. *Buff. 6. p. 1. pl. 1, 2, &c.*

Common Cat. *Pennant Quadr. 1. p. 295.*

THE Cat, in a state of natural wildness, and from which are supposed to have proceeded all the varieties of the domestic Cat, is a native of the northern regions of Europe and Asia. In this its natural state it differs in some slight particulars from the domestic animal, having a somewhat shorter tail in proportion, a flatter and larger head, and stronger limbs; and, from an exact anatomical inspection of its interior parts, it appears that the intestines are somewhat shorter than those of the domestic Cat. The colour of the wild Cat is commonly a pale yellowish-grey, with dusky stripes and variegations; those on the back running lengthwise, those on the sides transversely and with a curved direction: the tail is annulated with several alternate circles of blackish-brown and dull white: the tip of the nose and the lips are black. Even wild Cats, however, appear to differ in their shades of

colour in different parts of Europe. Mr. Schreber in his plate of quadrupeds, figures a specimen of a pretty deep tawny colour, varied with black or deep-brown streaks, so that the animal has very much the appearance of a Tiger in miniature; while on another plate he has exhibited one, communicated by Dr. Pallas, of a pale grey with black or dark-brown variegations.

The manners of the wild cat resemble those of the Lynx, and several others of this genus; living in woods, and preying on young hares, on birds, and a variety of other animals, which it seizes by surprise. It breeds in the hollows of trees, and produces about four at a birth. "The wild Cat (says Mr. Pennant) may be called the British Tiger; it is the fiercest and most destructive beast we have; making dreadful havock among our poultry, lambs, and kids. It inhabits the most mountainous and woody parts of these islands, living mostly in trees, and feeding only by night. It multiplies as fast as our common Cats; and often the females of the latter will quit their domestic mates, and return home pregnant by the former."

The varieties of this animal in a domestic state are very numerous; it is either entirely black; black and white; black, fulvous, and white (called the Tortoise-shell or Spanish Cat); white without any variegation; fulvous and white; dun-colour or tawny, either plain or with deeper stripes; tabby, or of a similar colour to the wild Cat, but with much bolder or more vivid variegations; slate-coloured or blue-grey (called the Chartreux

Cat); slate-coloured with very long fur, especially on the neck and tail (the Persian Cat); white, with hair of a similar length (called the Angora Cat); and, lastly, with penciled or tufted ears, like a Lynx, which sometimes, though rarely, takes place. Of all the above varieties the Persian and the Angora are the most remarkable: the latter variety has sometimes one eye blue, the other yellow; a particularity which takes place in some specimens of the common white Cat; it is also observable that the white variety of the Cat is sometimes perfectly deaf.

To enlarge on the character and manners of this useful and agreeable domestic would be entirely superfluous. It may be sufficient to observe, that, when well educated, the Cat possesses qualities which well entitle her to the regard and protection of mankind; and if she does not exhibit the vivid and animated attachment of the Dog, she is still of an affectionate and gentle disposition, and grateful to her benefactors.

She has also the merit of perpetual cleanliness, and does not soil even the nicest furniture; while her numerous and infinitely varying gesticulations have an elegance and levity almost unequalled by any other animal.

A singular instance of attachment in the Cat, is recorded in Mr. Pennant's Account of London. Henry Wriothsly, Earl of Southampton, the friend and companion of the Earl of Essex in his fatal insurrection, having been confined some time in

the Tower, was surprised by a visit from his favourite Cat, which, says tradition, reached its master, by descending the chimney of his apartment.

No animal, whose habits and manners we have the opportunity of accurately observing, exhibits a greater degree of maternal tenderness than the Cat: the extreme assiduity with which she attends her young, and the fondness which she shews for them, afford the most pleasing entertainment to a philosophic observer. She even possesses a propensity to nurse with tenderness the young of a different individual; and it is a general observation, that a domestic Cat will commonly suckle and nurse any young kitten that is newly introduced to her.

Nothing can be more beautiful than the experiment of setting a young Cat, for the first time, before a looking-glass. The animal appears surprised and pleased with the resemblance, and makes several attempts at touching its new acquaintance; and, at length, finding its efforts fruitless, it looks behind the glass, and appears highly surprised at the absence of the figure: it again views itself; tries to touch with its foot; suddenly looking at intervals behind the glass: it then becomes more accurate in its observations, and begins, as it were, to make experiments, by stretching out its hand in different directions; and when it finds that these motions are answered in every respect by the figure in the glass, it

seems, at length, to be convinced of the real nature of the image. The same is the case with the Dog at an early age.

The Cat generally lives in habits of friendship with the other domestic animals; the contrary instances arising entirely from neglect of early education\*.

The sleep of the Cat, which is generally very light, is sometimes so profound that the animal requires to be shaken pretty briskly before it can be awakened: this particularity takes place chiefly in the depth of winter, and especially on the approach of snowy weather: at such periods also, as well as at some others, the animal diffuses a fragrant smell, something like that of cloves.

The fur of the Cat, being generally clean and dry, readily yields electric sparks when rubbed; and if a clean and perfectly dry domestic Cat be placed, in frosty weather, on a stool with glass feet, or insulated by any other means, and rubbed for a certain space, in contact with the wire of a coated vial, it will be effectually charged by this method.

\* We might here mention the well-known anecdote of the French lady, who taught her Cat, Dog, Mouse, and Bird, to feed together from the same plate.

## JAPAN CAT.

Japan Cat. *Pennant Quadr.* 1. p. 297.

Chat sauvage Indien. *Vosmaer.*

THIS is said to be of the size of a common Cat, and has a tail ten inches and a half long: the ears are upright and pointed: colour of the face and lower part of the neck whitish: breast and lower belly a clear grey: body part yellow and clear grey, mixed with black disposed in transverse rays. Along the back, quite to the tail, is a broad band of black, which also extends over the upper part of the tail: the lower part is semi-annulated with black and grey. Its cry is said to resemble the mewing of a great Cat. I cannot but observe, that this animal, described by Mr. Pennant from Vosmaer, seems to be very nearly allied to the grey variety of wild Cat figured by Mr. Schreber at plate 107. A.a. of his work on quadrupeds.

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 GUIGNA.

Felis Guigna. *Molina Chili.* 275.

Guigna Cat. *Pennant Quadr.* 1. p. 299.

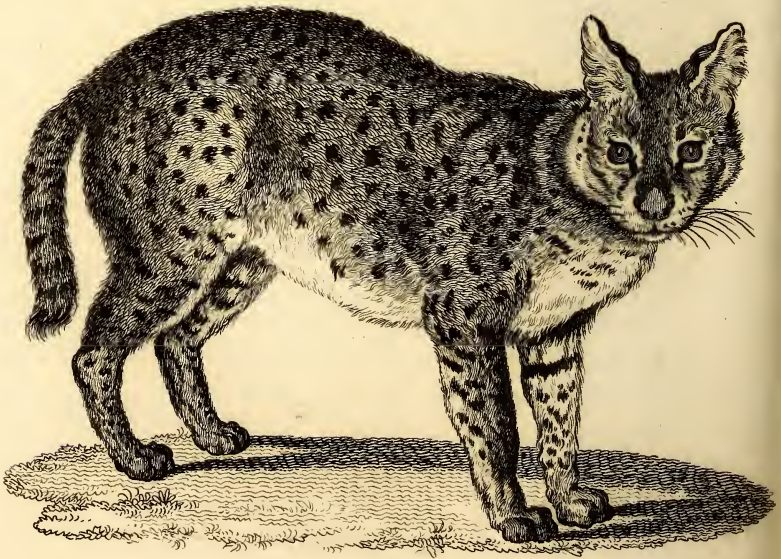
THIS, which is described by Molina, in his account of Chili, is of the size of a common Cat, and inhabits forests. Its colour is tawny, marked







MARGAY.



SERVAL.

with round black spots five lines in diameter, extending along the back to the tail.

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COLOROLO.

Felis Corololo. *Molina Chili. p. 275.*

Corololo. *Pennant Quadr. i. p. 299.*

THIS also is described by Molina. Like the former species it inhabits the forests, and preys on birds and mice, and is said sometimes to infest poultry yards. Its colour is white, marked with irregular spots of black and yellow: the tail encircled with black quite to the point. The head and tail in this and the preceding animal are larger in proportion than in the common Cat.

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SERVAL.

Felis Serval. *F. cauda subabbreviata, corpore supra fusco maculis nigris, orbitis ventreque albis. Lin. Syst. Nat. Gmel. p. 82.*

Tawny-brown shortish-tailed C. whitish beneath, with the orbits of the eyes white, and the body marked with roundish dusky spots.

Chat-Pard. *Mem. pour servir à l'hist. des anim. i. p. 110.*

Le Serval. *Buff. 13. p. 233. pl. 34.*

Serval. *Pennant Quadr. i. p. 301.*

THE Serval is a native of India and Tibet, and is an extremely fierce and rapacious animal. It resides principally among trees; leaping with great agility from one tree to another, and pursuing

birds, &c. This species appears to have been first described by the French Academicians in their work entitled *Mémoires pour servir à l'Histoire des Animaux*. The specimen there described measured two feet and a half from the nose to the tail, which was eight inches long. Its shape thick and strong: its general colour was fox-red or ferruginous, with the throat, abdomen, and insides of the legs, yellowish-white: it was spotted almost all over with black; the spots being of a long form on the back, and round on the sides, belly, and legs, where they were proportionally smaller and more numerous. The specimen described and figured in the Count de Buffon's Natural History differed only in a very few particulars, so slight as to leave no doubt of the identity of the species. It was excessively fierce and untameable.

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AMERICAN SERVAL.

Chat Sauvage de la Caroline. *Buff. suppl.* 3. p. 226.

Mountain Lynx. *Pennant Quadr.* 1. p. 300.

IT is to this animal, and not to the preceding, that Mr. Pennant applies the synonym of *Chat-Pard*, and supposes it to have been the species described by the French academicians of the last century. It has (says Mr. Pennant) upright pointed ears, marked with two brown transverse bars: colour of the head and whole upper part of the body reddish-brown, marked with long nar-

row stripes on the back, and with numerous round small spots on the legs and sides; the belly is whitish, and the chin of a pure white: the tail is barred with black: the length of the animal is two feet and a half. It inhabits North America. Mr. P. adds, that it grows very fat, and is considered as a mild and gentle animal. The species mentioned by Buffon, under the title of *Chat sauvage de la Caroline*, is supposed by Mr. Pennant to be the same animal; it is described by Buffon from a coloured drawing communicated to him by Mr. Peter Collinson, and is said to be of the size of a common Cat, and of a clear brown colour mixed with grey, and striped on the back and sides with longitudinal marks of black along its whole length, from head to tail: the tail was annulated with black and white, and the abdomen pale, and spotted with black: the legs were also spotted; and on each side the nose beneath the eyes was a large black spot.

*Var. ?*

In the same volume of his supplement, Mr. Buffon gives a figure of an animal of this tribe under the name of *Chat sauvage de la Nouvelle Espagne*. It is said to be four feet long from nose to tail: its eyes rather small, and its tail rather short: its colour a blueish-grey, slightly speckled with blackish: its hair coarse, and sufficiently strong for painters' pencils with a firm point. According to Buffon's figure of this ani-

mal, the tail seems rather longer than in the former, and without the least appearance of bars. Mr. Pennant considers this as a distinct species, under the name of *New Spain Cat*.

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CHAUS.

Felis Chaus. *F. cauda mediocri, apicem versus annulata, apice ipso nigra, corpore reliquo ex fusciscente luteo, auriculis extus brunneis apice nigro barbatis.* *Lin. Syst. Nat. Gmel. p. 82. Guldenstedt nov. comm. petrop. 1775. p. 483. t. 14, 15.*

Brownish-yellow C. with moderately short tail, annulated towards the tip, with the tip itself black, and the ears brown, bearded with black at the tips.

Caspian Lynx. *Pennant Quadr. 1. p. 304.*

THIS species was first described by Professor Guldenstedt in the Petersburg Transactions. It is an inhabitant of the woody and marshy tracts that border on the western side of the Caspian Sea, and in the Persian provinces of *Ghilan* and *Masenderan*, and is frequent about the mouth of the *Kur*, the ancient *Cyrus*. In manners, voice, and food, it agrees with the wild Cat. Its general length is about two feet six inches from the nose to the tail; but it has been known to measure three feet: the tail reaches only to the flexure of the legs. The colour of this species is a dusky yellowish-brown; the breast and belly much brighter, or more inclining to orange-colour: the tail is tipped with black, and has three obscure black bars at some distance from the tip; and on

the inside of the legs, near the bend of the knee, are two dusky bars: the ears are tufted with black hairs.

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BAY LYNX.

*Felis Rufa.* *F. cauda abbreviata, subtus et apice alba, corpore rufo fusco maculato, auriculis apice barbatis.* *Lin. Syst. Nat. Gmel. p. 82.*

Short-tailed bay C. obscurely spotted with black; with the tail white beneath and at the tip, and the ears bearded at the tips.  
Bay Linx. *Pennant Quadr. 1. p. 303.*

THIS species is about twice the size of a large Cat, and is a native of North America. Its colour is a bright bay, obscurely marked with small dusky spots; the upper and under lip, throat, and whole under sides of the body and limbs, are white. From beneath each eye three curved blackish stripes pass down the cheeks: the upper part of the inside of the fore legs is marked by two black bars: the upper part of the tail is marked with four or five dusky bars, and that next the tip is black: the ears are sharp-pointed and tufted with long black hairs. This animal was first described by Guldenstedt. The hair is shorter and smoother than that of the common Lynx.

## CARACAL.

Felis Caracal. *F. cauda subabbreviata, et omni corpore unicolore ex fuscescente brunneo, auriculis extus nigris, apice barbatis.*  
*Lin. Syst. Nat. Gmel. p. 82.*

Reddish-brown shortish-tailed C. with the ears externally black, and tipped with long black hairs.

Siyah Gush. *Charleton, ex. 21.*

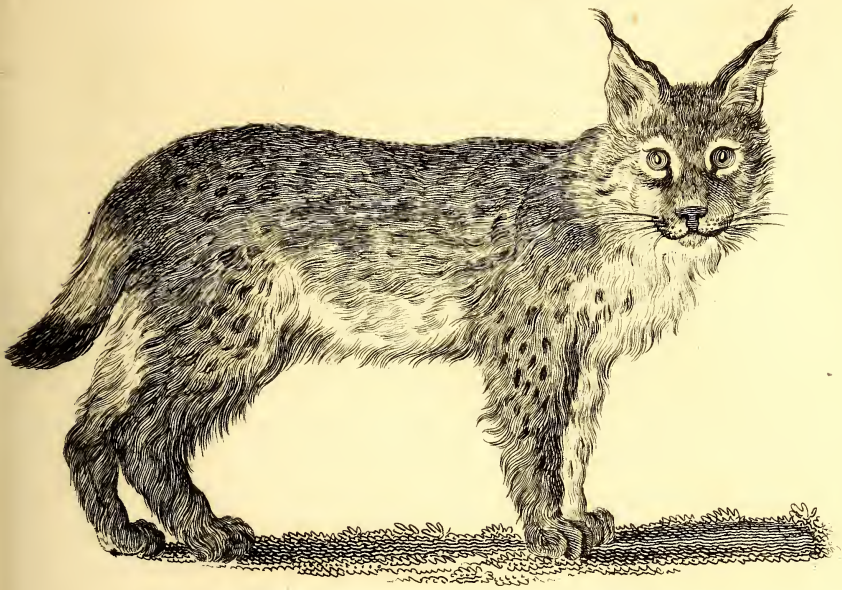
Le Caracal. *Buff. 9. p. 262. pl. 24.*

Persian Lynx. *Pennant Quadr. 1. p. 305.*

THE Caracal or Persian Lynx is a native both of Asia and Africa; and it is said that in some parts of Persia it is tamed and made use of in the chase. It is an animal of great strength and fierceness: Dr. Charleton mentions one which killed a hound and tore it in pieces in an instant, notwithstanding the vigorous defence made by the Dog. It is used not only in the chase of the smaller quadrupeds, but of the larger kinds of birds, such as herons, cranes, pelicans, &c. which it is said to surprise with great address. When it has seized its prey, it lies motionless for some time upon it; holding it in its mouth. The Caracal is about the size of a Fox, but of a much stronger make: its colour is a pale reddish-brown; whitish beneath: the head is small, the face longish, the ears sharp and slender, of a blackish colour, and terminated by a tuft or pencil of long black hairs.

In Barbary the Caracal is said to be of a paler colour, or less red than in India; and, according to an observation communicated by Mr. Bruce to





COMMON LYNX.



CARACAL.

*Heath's July.*



the Count de Buffon, has the ears red on the outside, instead of black. This is considered by Mr. Pennant as a variety of the former, under the title of *Lybian Caracal*. He describes it thus: "Cat with short black tufts to the ears, which are white within: of a lively red without: tail white at the tip, annulated with four black rings, with some black marks behind the four legs. It is greatly inferior in size to the former; not larger than a common Cat. Inhabits both Lybia and Barbary."

In reality it is the species which Mr. Bruce names the *Booted Lynx*, and of which he has given an elegant figure in his appendix. It measures, according to Mr. Bruce, 22 inches from the nose to the tail, which is 13 inches long. The general colour is a pale reddish-grey, whitish beneath: the back of the ears reddish-brown; the insides lined with white hair: the tips penciled with long black hairs: on the back of all the feet runs a black band, which, on the fore feet, reaches two inches, and on the hind feet four inches up the leg: the tail is of the same colour as the back, at its origin, but towards the end grows whitish, and is marked with four black rings. He chiefly preys, according to Mr. Bruce, on Guinea-fowl, which are extremely plentiful in those parts. He has very much the appearance of a common cat; often mounts trees, and is said to be exceedingly fierce.

It is easy to perceive that this species must in

reality be perfectly distinct from the common Caracal.

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COMMON LYNX.

Felis Lynx. *F. cauda abbreviata, obsolete annulata apice atra, capite et corpore ex albido rufo nigro maculato, auriculis apice barbatis.* *Lin. Syst. Nat. Gmel. p. 83.*

Short-tailed rufous-grey C. slightly spotted with black, white beneath, with tip of the tail black, and ears terminated by long black hairs.

Lupus cervarius. *Gesn. Quadr. 677.*

Lynx. *Aldr. dig. p. 90.*

Le Lynx. *Buff. 9. p. 231. pl. 21.*

THE LYNX, with some slight varieties as to size and colour, appears to be found in all the colder regions of Europe, Asia, and America, residing in thick woods, and preying on hares, deer, birds, and almost every kind of animal inhabitant. The general size of the Lynx is that of a middling Dog: the measure given by Mr. Pennant of the skin of a Russian Lynx is four feet six inches from head to tail: the tail measuring six inches. But the generality of Lynxes seem to be somewhat smaller than this. In colour the Lynx varies, but is generally of a pale-grey, with a very slight reddish tinge: the back and whole upper parts are obscurely spotted with small dusky or blackish marks. The throat, breast, and belly, are white: the tail white with a black tip: the ears tipped with pencils of long black hair. It is

an animal of a short or thickish form, and covered with a very thick soft fur. The fur of the Lynx is held in considerable estimation, and such skins as approach to a pale or whitish colour, and on which the spots are most distinct, are the most valued. The best are found in the neighbourhood of the Lake Balkash, and are said to sell for one pound sterling on the spot. The female produces three or four young at a birth, which she deposits in the deepest recesses of the woods. The Lynx is said to howl almost in the manner of a Wolf. In a state of captivity it seems extremely ferocious, frequently expressing its malignity by a kind of snarling scream, and is not be tamed.

## VIVERRA. WEESEL.

*Generic Character.*

<i>Dentes Primores</i> sex, subacuti.	Cutting-teeth six, sharpish.
<i>Laniarii</i> longiores.	Canine-teeth longer.
<i>Molares</i> plures quam tres.	Tongue in some smooth, in
<i>Lingua</i> in aliis lævis, in aliis retrosum aculeata.	others aculeated backwards.
<i>Corpus</i> elongatum.	Body of a lengthened form.

THIS genus comprehends all the animals of the Weesel kind; which seem to be somewhat unnecessarily separated by Linnæus into two distinct genera, under the titles of *Viverra* and *Mustela*; in which latter genus the Otters are also included. In this particular Mr. Pennant seems to have acted more judiciously than Linnæus. I shall, therefore, follow his example, and unite the two genera, preserving the Otters or *Lutræ* distinct from both.

The general character of the Weesel tribe is a certain slenderness and length of body; with a sharpened visage, short legs, and, in most species, a longish tail (though in some few it is short). The disposition of the teeth may be seen in the







generic character above given. It is proper to add, that in the Linnæan *Mustelæ*, the lower front-teeth do not stand in a regular or even line, but two are placed interiorly, or within the line of the rest. In most of the Linnæan *Viverræ* the tongue is aculeated backwards; but this is a character found likewise in some of the *Mustelæ*.

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 ICHNEUMON.

*Viverra Ichneumon.* *V. cauda e basi incrassata sensim attenuata apice floccoso, pollicibus remotiusculis.* *Lin. Syst. Nat. Gmel. p. 84.*

Grey I. with distant thumbs, and tail gradually tapering from a thick base, and tufted at the end.

*Mustela pilis ex albido et nigro variegatis vestita.* *Briss. Quadr. p. 181.*

Ichneumon que les Egyptiens nomment Rat de Pharaon. *Belon. obs. p. 95.*

Ichneumon. *Gesn. Quadr. 566. Aldr. dig. p. 298.*

*Var. ?*

*Viverra Mungo.* *V. cauda e basi crassa sensim attenuata non floccosa, pollicibus remotiusculis.* *Lin. Syst. Nat. Gmel. p. 84.*

Rufous-grey I. with distant thumbs, and untufted tail, gradually tapering from a thick base.

*Viverra Ichneumon β.* *Lin. Syst. Nat. ed. 12. p. 63.*

*Mustela glauca.* *Lin. Syst. Nat. ed. 5. Am. acad. 2. p. 109.*

*Viverra ex griseo rubescens.* *Briss. Quadr. p. 177.*

*Mustela seu Viverra Indis Mangutia.* *Kämpf. am. ex. 574.*

Indian Ichneumon. *Edwards, pl. 199.*

Mangouste. *Buff. 13. p. 150. pl. 19.*

THE Ichneumon is a species of which there seem to be two distinct varieties, one of which is

a native of India, and the other of Africa. Both agree in their general appearance, but the Ægyptian variety is considerably larger than the Indian; measuring more than forty inches from the nose to the end of the tail; whereas the Indian Ichneumon scarce exceeds two thirds of this length: exclusive of size alone, the Ægyptian Ichneumon is distinguished by having the tail slightly tufted at the end, which the other has not; and from this circumstance it is placed, in the Gmelinian edition of the *Systema Naturæ*, as a distinct species. The Ichneumon is of a pale reddish-grey colour, each hair being mottled with brown or dusky, so that the whole appears speckled in the manner of the hair on some of the larger Baboons. The eyes are of a bright red or flame-colour: the ears rounded, and almost naked: the nose long and slender: the body rather thicker than in most others of this genus; and the tail is very thick at the base, and from thence gradually tapers almost to a point: the legs are short: the hair on the whole animal is hard and coarse, and it varies somewhat as to the depth and cast of its colours in different individuals. In India, but still more in Ægypt, the Ichneumon has always been considered as one of the most useful and estimable of animals; since it is an inveterate enemy to serpents, rats, and other noxious creatures which infest those regions. In India it attacks, with the greatest eagerness and courage, that most dreadful reptile, the Cobra de Capello, or hooded Snake, and easily destroys it.

It also diligently seeks for the eggs of crocodiles; for which reason, as well as for its general usefulness in destroying all manner of troublesome reptiles, it was held in such a high degree of veneration by the ancient Ægyptians as to be regarded in the light of a minor deity, or one of those benevolent beings proceeding from the Parent of the universe. For the purposes above specified it is still domesticated by the Indians and Ægyptians, in the same manner as the Cat in Europe; and it has also the merit of being easily tamed, and of performing all the services of the Cat with a still greater degree of vigor and alacrity. When in pursuit of prey, it sometimes springs suddenly upon it with the greatest agility, and, at other times, will glide along the ground like a Serpent, without raising its body, till it arrives at a proper distance for its intended attack. Like many other animals of this tribe, it is a most dangerous enemy to several creatures larger than itself; over which it gains a ready victory, by fastening itself upon them, and sucking their blood. In a wild state it is said principally to frequent the banks of rivers, and, in times of flood, to approach the higher grounds, and inhabited places, in quest of prey. It is reported to swim and dive occasionally, in the manner of the Otter, and to continue beneath the water for a great length of time.

The Ichneumon is found not only in various parts of India, but in the Indian islands, as Ceylon and others. It also occurs in many parts of

Africa besides Ægypt, as in Barbary, and at the Cape of Good Hope, &c. As it is a native of warm countries, it is, of course, greatly injured by a removal to the colder regions of Europe, and generally falls a victim to the alteration of climate.

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CAFFRARIAN WEESEL.

*Viverra Cafra. V. cauda e basi crassa sensim attenuata apice atra. Lin. Syst. Nat. Gmel. p. 85. Schreber saeugh. 3. p. 439.*

Yellowish-brown W. with tail gradually tapering from a thick base, and black at the tip.

THIS species, in its general form, resembles the Polecat, but is nearly of the length of an Otter. Its colour, on all parts, except the tip of the tail, which is black, is a mixture of yellow-brown and black, so as to resemble the colour of the Aguti\*, but rather deeper, especially on the back: the hair is of a strong and glossy nature: the feet are blackish: the ears very short, and covered with woolly fur. This animal is described by Mr. Schreber from a dried skin which was sent to Dr. Pallas. It is a native of the Cape of Good Hope.

\* Long-nosed Cavy. *Pennant.*

## ZENIC.

*Viverra Zenic. V. tetradactyla, corpore griseo, fasciis decem transversis nigris, cauda ex atro spadicea, versus apicem nigra. Lin. Syst. Nat. Gmel. p. 85.*

Four-toed grey W. with ten transverse black bands on the body, and deep chesnut-coloured tail, black towards the tip.

Le Zenik des Hottentots. *Sonnerat voy. 2. p. 145. pl. 92.*

THIS, which is described by Sonnerat, is a Caf-frarian species, and is about the size of a water-rat. The snout is long, and in each jaw are two incisive and six canine teeth\*: the whole animal is of a reddish-grey colour, and is marked by ten transverse black bands over the back, and reaching downwards on each side, almost as in the Zebra: the tail, which is scarce the length of the body, is slender, and of a deep ferruginous-colour for three fourths of its length, the remainder being black. Mr. Sonnerat says nothing of this animal's manners; but we may conclude that it resembles, in this respect, the rest of its congeners. It has five toes on each foot; and the claws on the fore feet are very long and almost strait: those of the hind feet are small and crooked.

\* By canine-teeth Mr. Sonnerat must be supposed merely to mean teeth of a sharpened form.

## SURIKATE.

*Viverra Surikatta.* *V. grisea, naso producto mobili, pedibus tetradactylis, cauda ferruginea, apice nigro.*

Grey-brown W. with long moveable snout, four-toed feet, and ferruginous tail, black at the tip.

*Viverra tetradactyla.* *V. pedibus tetradactylis, naso producto mobili.* *Lin. Syst. Nat. Gmel. p. 85.*

Suricate. *Buff. 13. p. 72. pl. 8.*

*Viverra tetradactyla.* *Miller, Cimel. Phys. t. 20.*

Four-toed Weesel. *Pennant Quadr. 2. p. 57.*

THE Surikate is distinguished by a long sharp-pointed nose, depressed head, and inflated cheeks: the upper jaw is much longer than the lower, and on its upper part is black: the eyes are also surrounded by black: the ears are small and rounded: the tongue is oblong, blunt, and aculeated backwards: the length of the animal, exclusive of the tail, is about a foot; and of the tail about eight inches: the legs are short: the claws on the fore feet much exceed in length those of the hind feet. The general colour of the Surikate is a deep grey; the tail is subferruginous, tipped with black. It is an inhabitant of the Cape of Good Hope, where it is called Meer-rat. It feeds on flesh, and preys on mice, and other small animals. It commonly sits erect in the manner of a Squirrel, and, when pleased, makes a rattling noise with its tail, for which reason the Dutch inhabitants of the Cape call it Klapper-maus. It is also found in the island of Java, where it is named Surikatje by the Dutch, on account of a

SURIKATTE.



TIGRINE VIESE S.T.

Tab. 17. f. 10.





peculiarly acid scent, which it is said to emit. It is an animal of a capricious disposition when in a state of captivity. In having only four toes, it differs from most of this tribe.

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 COATI-MONDI.

*Viverra Nasua. V. cauda albo annulata, naso producto mobili.*

*Lín. Syst. Nat. Gmel. p. 86.*

Rufous W. with tail annulated with white, and lengthened moveable snout.

*Ursus naso producto et mobili, cauda annulatim variegata.*

*Briss. Quadr. p. 190.*

Coati. *Marcgr. Bras. p. 228.*

Coati Mondí. *Act. Paris. t. 3. P. 3. p. 17. t. 37.*

Le Coati noiratre. *Buff. 8. pl. 47.*

Brasilian Weesel. *Pennant Quadr. 2. p. 61.*

THE size of this animal is at least equal to that of a Cat. Its general colour is a cinereous brown, or ash-colour, with a cast of reddish: the tail, which is of very considerable length, is annulated with distinct circles of black: its most remarkable character is the long, flexible snout, somewhat truncated at the end. By the assistance of this it turns up the earth, in the manner of a Hog, in quest of earth-worms, &c. Like the Polecat, it also preys on the smaller quadrupeds, birds, &c. It is a native of South America, and seems to have been first described by Marcgrave, in his History of Brasil. There is a particularity, sometimes observable in this animal, which seems worthy of notice, viz. a kind

of prolongation of the skin at the back of the heel into several horny processes of about a quarter of an inch in length: these in some specimens are scarce visible. The tongue is marked on the upper part with several furrows, so disposed as to resemble the fibres of a leaf.

*Var. ?*

COATI-MONDI.

Viverra Narica. *V. subfusca, cauda concolore, naso producto mobili.* *Lin. Syst. Nat. Gmel. p. 86.*

Brown W. with tail of the same colour, and with lengthened moveable snout.

Le Coati brun. *Buff. 8. pl. 48.*

Dusky W. Brazilian W. var.  $\beta$ . *Pennant Quadr. 2. p. 62.*

THIS, in its general appearance, so much resembles the preceding, that it has been considered by many naturalists as a variety only. It is, however, rather larger than the former, of a browner colour, and without any annuli, or, at least, without very distinct variegations on the tail. In its manners it agrees with the former: it burrows into the ground so expeditiously as soon to conceal its whole body; feeds both on animal and vegetable substances, and is said occasionally to go into the water. It also climbs trees.



STRIATED WEESEL. var.



CHINCHE.



STRIATED WEESEL.

Toy for J. S. P.

## COASSE.

*Viverra Vulpecula. V. tota castanea, naso producto. Lin. Syst.*

*Nat. Gmel. p. 87.*

Dark chesnut-coloured W. with lengthened snout.

Coassé. *Buff. 13. p. 288. pl. 38.*

THIS animal is about the size of the Polecat; measuring eighteen inches from nose to tail: the tail is long and full of hair: the whole animal is of a deep or blackish chocolate-colour, but the tail is sometimes mixed with white. It is a native of Mexico and many other parts of America, and possesses the power of emitting, when attacked or irritated, such powerfully offensive effluvia, as, in most instances, effectually to discomfit and repel its pursuers.

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 STRIATED WEESEL.

*Viverra Striata.*

*Viverra Putorius. V. nigricans, lineis quinque dorsalibus parallelis albis. Lin. Syst. Nat. Gmel. p. 87.*

Blackish W. with five parallel, white, dorsal stripes.

*Mustela nigra, tæniis in dorso albis. Briss. Quadr. p. 181.*

Striated Weesel. *Pennant Quadr. 2. p. 64.*

Conepate. *Buff. 83. p. 288. pl. 40.*

IT has been imagined, and not without a degree of probability, that this animal is the female of the former. It is of the same size and general aspect, but is distinguished by five parallel longi-

tudinal white stripes on the back: the tail very bushy or full of hair. In the different specimens of this animal there is some slight variation observable in the proportion of the dorsal stripes, as well as in the colour of the tail, which is sometimes marked with a pair of lateral white bands, and sometimes almost entirely white. Its manners and horrible vapour, when irritated, it perfectly agrees with the preceding, as well as with the two succeeding species; and the same description of this offensive quality may be applied to all the four. If the accounts given of this odious vapour are not aggravated by the abhorrent recollection of those who have experienced its effects, every other ill smell which nature can produce, is surpassed by the overpowering fœtor of these extraordinary quadrupeds. In consequence of the dreadful emanation the dogs are said to relinquish their pursuit, and the men to fly with precipitation from the tainted spot: but if unfortunately the least particle of the fluid which the animal commonly discharges at this juncture, should happen to light on the clothes of the hunter, he becomes a general nuisance wherever he appears. and is obliged to divest himself of his dress, and practise all the arts of ablution, in order to be restored to the society of mankind.

To add to the history of these strange circumstances, it is affirmed that the animal is sometimes tamed, and rendered domestic; in which state it is pretended that it never emits its pestilential vapour unless greatly displeased or irritated: if

this be case, it ought surely to be treated, as an eminent zoologist has well observed, with the highest attention.

## VAR.

Among some miscellaneous plates of animals, published a few years ago by Mr. Catton, is a representation of what seems to be a variety of the above species; having only four white bands on the back, and the tail almost entirely white: a patch of white appears below each ear, and a small triangular white spot on the forehead. In the description accompanying the plate the animal is said to have measured twelve inches from nose to tail, and to have been brought from Bengal.



## CONEPATL.

*Viverra Conepatl.* *V. nigricans, lineis duabus albis dorsalibus per caudam productis.* *Lin. Syst. Nat. Gmel. p. 88.*

Blackish W. with two white dorsal lines extending along the tail.

*Conepatl, seu vulpecula puerilis.* *Hernand max. p. 232.*

OF this species very little more than its mere name and descriptive character seems to be known. It is a native of New Spain, and, perhaps, may be nothing more than a variety of the preceding.

## CHINCHE.

*Viverra Mephitica*. *V. fusca dorso albo, linea longitudinali nigra*.  
Brown W. with white back marked with a longitudinal black stripe.

*Viverra Mephitica*. *Lin. Syst. Nat. Gmel. p. 88.*

Mephitic Weesel. *Museum Leverianum, No. 4. p. 173. pl. 6.*

Le Chinche. *Buff. 13. p. 294. pl. 39.*

THIS species is rather smaller than the former species. The head is small and flat, and the snout sharp and lengthened. The whole animal is of a blackish chocolate-brown, with a broad bed of white on the back, divided by a stripe of black, which sometimes passes along the whole length of the back, and sometimes not much more than half way from the tail, which is white at the tip and sides, with the remainder like the body; but it also varies with the tail all white or parti-coloured: along the forehead is a narrow white stripe reaching towards the neck. In manners and smell this resembles the two preceding animals.

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 CHINGE.

*Viverra Chinge*. *V. nigra, cæruleo nitens, vitta macularum albarum a capite ad caudam producta.*

Black W. with changeable cast of blue, with a row of white spots from head to tail.

Chinge. *Molina Chili. 269.*

THIS, according to Molina, its first describer, seems in shape and general form to resemble the



Chinche, or *V. Mephitica*, but is of a black colour with a changeable cast of blue, and has along the back a row of round white spots, reaching from head to tail: the head is long, the ears large, well covered with hair, and pendulous: the hind legs longer than the fore. It is a native of Chili. It generally carries its head low, its back arched, and its tail, which is very bushy, spread over its back like that of a Squirrel. In its manners and vapour it is said to agree with those before described. Molina affirms that the smell proceeds from a certain greenish oil, ejected from a follicle or receptacle near the tail. The Indians are said to value the skin of this species on account of its beauty, and to use it for various purposes, quilts, &c. &c.

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 ZORILLA.

*Viverra Zorilla. V. albo nigroque varia. Lin. Syst. Nat. Gmel. p. 88.*

W. variegated with black and white.

*Zorilla. Buff. 13. p. 289. pl. 41.*

THIS species is smaller than the three preceding, and is a native of Peru and other parts of South America. The ground-colour is black, upon which are three longitudinal white bands, extending from the head to the middle of the back, and other transverse white bands on the flanks, the rump, and the origin of the tail, which is black as far as the middle, and then white to

the extremity; it is as bushy and elegant as that of the Mephitic Weesel. The same faculty is ascribed to this as to the three former species.

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MAPURITO.

Viverra Mapurito. *V. nigra, fascia nivea a fronte ad dorsi medium producta, auriculis nullis.* *Lin. Syst. Nat. Gmel. p. 88.*

Black W. with snow-white band from the forehead to the middle of the back, and without any external ears.

Viverra Putorius. *Mutis. Act. Holm. 1769. p. 68.*

THIS is said to measure twenty inches to the tail, which is nine inches long, and whitish at the tip. It inhabits New Spain, and burrows under ground, feeding on worms and insects. Perhaps no other than a variety of the Mephitic Weesel.

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GRISON.

Viverra Vittata. *V. nigricans, vitta alba ab humeris ad frontem producta.* *Lin. Syst. Nat. Gmel. p. 88.*

Blackish W. with a broad white band from the forehead to each shoulder.

Grison. *Buff. ed. Allamand. 15. p. 65. pl. 8.*

Mouffette du Chili? *Buff. suppl. 7. p. 233. pl. 57.?*

THE length of the Grison from nose to tail is about seven inches, and the tail is rather more than half the length of the body. The upper part of the body is of a deep brown, each hair

tipped with white, which gives a grey or hoary appearance; the nose, throat, and whole under side of the animal, as well as the legs and thighs, black: the head is large, and the ears broad and short: across the forehead extends a broad white line, passing over the eyes and reaching as far as the shoulders. It is a native of Surinam. The specimen above described was supposed to have been young or half-grown, so that its proper measure seems not clearly understood. The animal figured in the 7th vol. of Buffon's supplement, pl. 57. appears so extremely nearly allied to the above, that I cannot but consider it as the same species. It was of a blackish-brown colour, with a white band from the forehead on each side the back: the tail white, villous, and shortish.



## QUASJE.

*Viverra Quasje.* *V. castanea, subtus flavescens, naso producto cauda annulata.* *Lin. Syst. Nat. Gmel. p. 87.*

Chesnut-coloured W. yellowish beneath, with lengthened moveable snout, and annulated tail.

THIS is said to be a native of Surinam, burrowing under ground, and living on worms, insects, fruits, &c. it is, perhaps, no other than some variety of the Coati-Mondi or Brasilian Weesel.

## CEYLONESE WEESEL.

*Viverra Zeylanica*. *V. cinerea fusco mista, infra albida*. Lin.  
*Syst. Nat. Gmel. p. 89. Schreber saeugh. p. 451.*  
 Cinereous W. mixed with grey, whitish beneath.

THIS species in its habit or general appearance, as well as in size, resembles the Martin: the general colour is grey, shaded with brown; deepest on the back and tail, beneath lighter or whitish: the tail is as long as the body; the vibrissæ or whiskers white; the lower lip indented; the feet five-toed, with rather retractile claws: the tongue warted. Mr. Schreber is not without some suspicion that this species may be the same with the Ceylonese Dog (Chien sauvage de Ceylon of Vosmaer).

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 CAPE WEESEL.

*Viverra Capensis*. *V. nigra, dorso griseo albo-marginato*. Lin.  
*Syst. Nat. Gmel. p. 89.*

Black W. with grey back edged with white.

*Mustela subfusca, linea longitudinali alba per utrumque latus ducta*. *Brown jam. p. 486. n. 1.?*

Stinkbinksen. *Kolbe Vorgeb. 1. 167.*

Blaireau puant. *La Caille voyag. p. 182.*

Ratel Weesel. *Pennant Quadr. 2. p. 66.*

THIS is one of the larger animals of the genus, measuring two feet from nose to tail, which is eight inches long. Its colour is a cinereous grey above, and brownish-black below; the two

colours being separated along the whole length of the animal, from the base of the nose to the tail, by a stripe of black and white: the ears are scarce visible: the tail rather thick; the legs short, and the head large; the snout short and somewhat pointed: the body seems of a thicker form than is usual in this genus.

This animal, when pursued, ejects a fetid liquid accompanied by a smell as insufferable as that of some of the American Weesels or Skunks, and productive of the same effects.

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HONEY WEESEL.

*Viverra Mellivora.* *V. dorso cinereo, fascia laterali nigra, abdomine nigro, unguibus longis subtus cavis, fossoriis.* *Lin. Syst. Nat. Gmel. p. 91.*

W. with cinereous back, with a black lateral band; the abdomen black; the claws long and formed for burrowing.

Ratel. *Sparrm. act. Stockh. 1777. t. 4. f. 3.*

THIS, according to Dr. Sparrman, feeds principally on the honey of wild bees about the Cape of Good Hope, which it finds in the holes of Jerboas, Rabbits, and other animals, as well as in hollow trees. To this, its most acceptable food, it is guided, as Dr. Sparrman tells us, by a bird called the Honey-Guide (*Cuculus Indicator*), which utters a shrill note whenever it discovers bees, on which it preys. This account of Sparrman's is greatly ridiculed by Mr. Bruce in his Abyssinian travels. The Honey Weesel has a

remarkably tough and loose skin, with thick hair: this is supposed to be given it as a natural defence against the stings of the bees. Mr. Pennant seems to have confounded this animal with the *V. Capensis*, described in the preceding article. Both species, indeed, are said to feed on honey, but Sparrman makes no mention of any offensive effluvia in his description.

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CIVET.

*Viverra Civetta*. *V. cauda superius maculata, versus apicem fusca, juba castanea, dorso cinereo fuscoque maculato*. Lin. *Syst. Nat. Gmel. p. 89.*

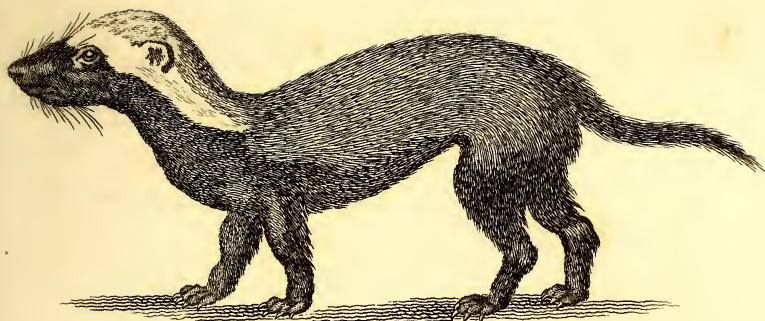
Ash-coloured W. spotted with black, with chesnut-coloured mane, and dusky tail spotted towards the base.

*Meles fasciis et maculis albis, nigris & rufescentibus variegata.*  
*Briss. Quadr. p. 186.*

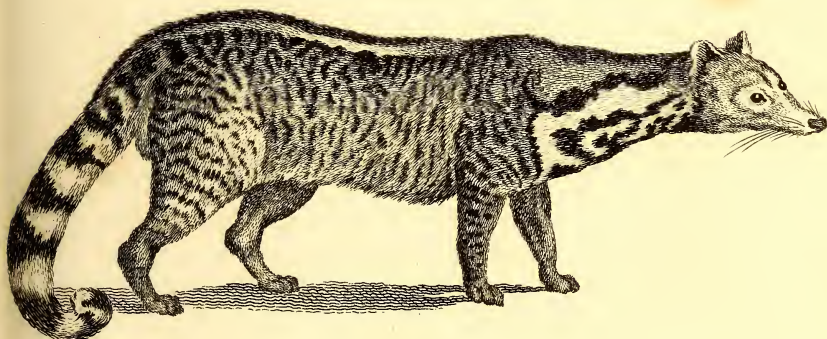
*Felis Zibethi.* *Gesn. Quadr. p. 836. Aldr. dig. 342.*

*Civette.* *Buff. 9. p. 299. pl. 34.*

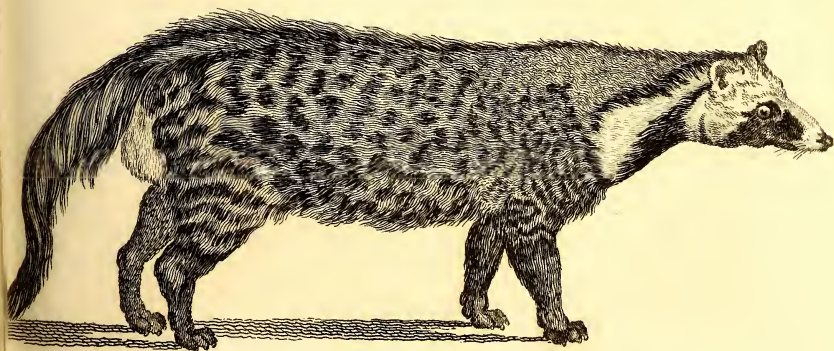
THE *Viverra Civetta*, commonly known by the name of the Civet Cat, is a native of several parts of Africa and India. The general length of this animal, from nose to tail, is something more than two feet, and the tail measures fourteen inches. The ground-colour of the body is yellowish ash-grey, marked with large blackish or dusky spots, disposed in longitudinal rows on each side, and sometimes a tinge of ferruginous appears intermixed: the hair is coarse, and along the top of the back stands up, so as to form a



GRISON.



ZIBET.



CIVET.





sort of mane: the head is of a lengthened or sharpish form; with short rounded ears: the eyes are of a bright sky-blue: the tip of the nose black: the sides of the face, chin, breast, legs, and feet, are black; the remainder of the face, and part of the sides of the neck, are of a yellowish-white; from each ear are three black stripes, terminating at the throat and shoulders: the tail is generally black, but sometimes is marked with pale or whitish spots on each side the base. It is an animal of a wild disposition, and lives in the usual manner of others of this genus, preying on birds, the smaller quadrupeds, &c. It is remarkable for the production of the drug called civet (sometimes erroneously confounded with musk). This substance is a secretion formed in a large double glandular receptacle, situated at some little distance beneath the tail, and which the animal empties spontaneously. When the Civet Cats are kept in a state of confinement (as is usual with the perfumers at Amsterdam and other places), they are placed, from time to time, in strong wooden cages or receptacles, so constructed as to prevent the creature from turning round and biting the person employed in collecting the secreted substance: this operation is said to be generally performed twice a week, and is done by scraping out the civet with a small spatula or spoon. This substance is of a yellowish colour, and of the consistence of an unguent; of an extremely strong and even unpleasant odour when fresh, so as sometimes to cause giddiness

and headach; but becomes more agreeable by keeping\*: the quantity obtained each time amounts to about a dram.

Civet, though an article in the more ancient materia medica, and though still employed by the oriental physicians, is with us chiefly used in perfumes. It has a very fragrant smell, and a sub-acrid taste: it unites readily with oils, both expressed and distilled; in watery or spirituous menstrua it does not dissolve, but impregnates the fluids strongly with its odour. It may, however, be made to unite with, or be soluble in water, by means of rubbing with mucilages.

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ZIBET.

*Viverra Zibetha.* *V. cauda annulata, dorso cinereo nigroque undatim striato.* *Lin. Syst. Nat. Gmel. p. 89.*

Ash-grey W. with black undulations and annulated tail.

*Felis Zibethi.* *Gesn. Quadr. 837.*

Animal Zibethi, vel Hyæna veterum Bellonii. *Aldr. dig. 343.*

Zibet. *Buff. 9. p. 299. pl. 31.*

THIS, which was figured as a variety by Gesner, and more precisely discriminated by Buffon, seems to be considered by modern naturalists as a distinct species; Mr. Pennant, however, even in his last edition, still regards it as the same with the

\* This is denied by the French academicians of the last century, who say, that after keeping it a year it seemed to smell exactly as at first.

preceding, from which, indeed, it seems to differ in so few particulars as still to leave the determination difficult. The Zibet is chiefly found in India and the Indian islands. Its general aspect is the same with the former species, but its snout is somewhat sharper; its tail longer, and, instead of being black or dusky, with merely a few whitish patches at the base, is strongly semi-annulated or banded with alternate black and white spaces: there is no perceptible mane on the back, nor any large brown or blackish patch under the eyes, as in the former animal: the hair also is shorter and softer than in the preceding kind, and the variegations are more disposed in the form of undulations than spots, especially on the limbs. In short, this species may be called the Indian, and the former the African, Civet Cat. In disposition and manners they both seem to agree; as well as in the secretion of the perfume before described, which is collected from both animals in the same manner.

## THREE-STRIPED WEESEL.

*Viverra Hermaphrodita. V. cauda elongata apice atra striis tribus dorsalibus nigris. Lin. Syst. Nat. Gmel. p. 90.*

Dark-grey W. with three black dorsal stripes, and long tail with black tip

*Viverra hermaphrodita Pallas. Schreb. Quadr. p. 426.*

THIS species is described by Mr. Schreber from Dr. Pallas. Its size is between that of the Civet and the Genet: its colour a dark ash-grey, with three black dorsal stripes: the snout, and face beyond the eyes, the throat, and the feet, are black: the tip of the tail black also: beneath the eyes is a whitish spot, and the under side of the body is lighter than the upper. It is a native of Barbary.

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 GENET.

*Viverra Genetta. V. cauda annulata corpore fulco-nigricante maculato. Lin. Syst. Nat. p. 65.*

Fulvous-grey W. with the body marked with rows of black spots, and annulated tail.

*Genette. Belon. obs. p. 73. Gesn. Quadr. 549.*

*Genette. Buff. 9. p. 343. pl. 36.*

THE Genet is one of the most beautiful animals of this genus. It is about the size of a very small Cat, but is of a longer form, with a sharp-pointed snout, upright ears, slightly pointed, and very long tail. The colour of the Genet is commonly a pale reddish-grey, with a black or dusky

line running along the back, where the hair is rather longer than on the other parts, and forms the appearance of a very slight mane: along the sides of the body run several rows of roundish black spots, which sometimes incline a little to a squarish form: the muzzle is dusky; beneath each eye is a white spot: the cheeks, sides of the neck, and the limbs, are spotted in a proportionally smaller pattern than the body, and the tail is annulated with black.

The Genet is an animal of a mild disposition, and easily tamed. In various parts of the east, as well as at Constantinople, it is domesticated like the Cat, and is said to be equal, or superior, to that animal in clearing houses from rats and mice. It is a cleanly animal, and has a slight musky smell. It is a native of the western parts of Asia, but is said likewise to occur in Spain, and even occasionally in some parts of France.

## VAR. ?

The French variety, however, according to the description and figure of the Count de Buffon, is far less elegantly and distinctly spotted than the Oriental Genet, and, indeed, Mr. Pennant, in his History of Quadrupeds, considers it as a distinct species, under the name of *Pilosello*. According to Mr. Pennant, the *Pilosello* is smaller than a Ferret, and is found about the rock of Gibraltar, and some parts of Spain and France. Its prevailing tinge is rust-colour, with rather irregular

black spots: the nose deep brown; the tail tawny, slightly annulated with black; the face, chin, and under side of the neck, cinereous, and a dark line runs up the forehead.

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FOSSANE.

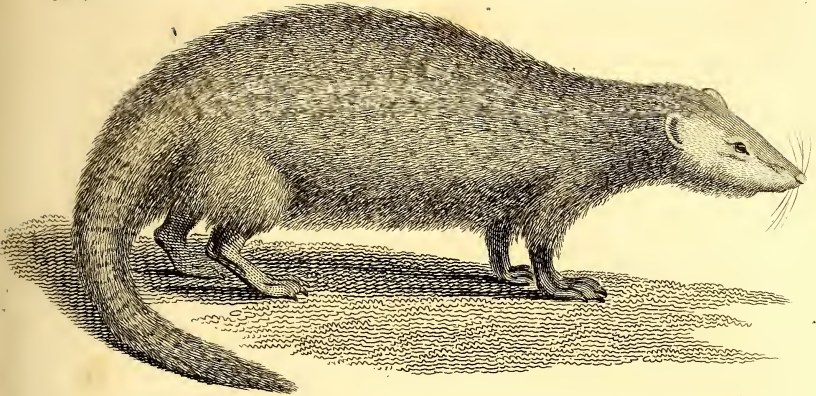
Viverra Fossa. *V. cauda annulata, corpore cinereo nigro maculato.* *Lin. Syst. Nat. Gmel. p. 91.*

Ash-coloured W. spotted with black, and with annulated tail.

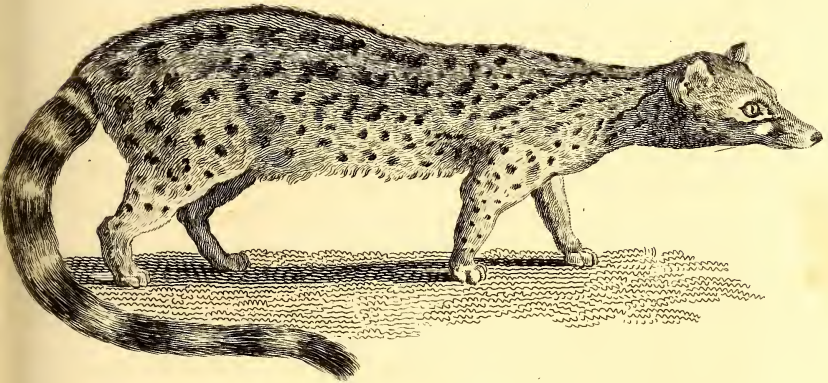
Fossane. *Buff. 13. p. 163. pl. 20.*

Fossane Weesel. *Pennant Quadr. 2. p. 75.*

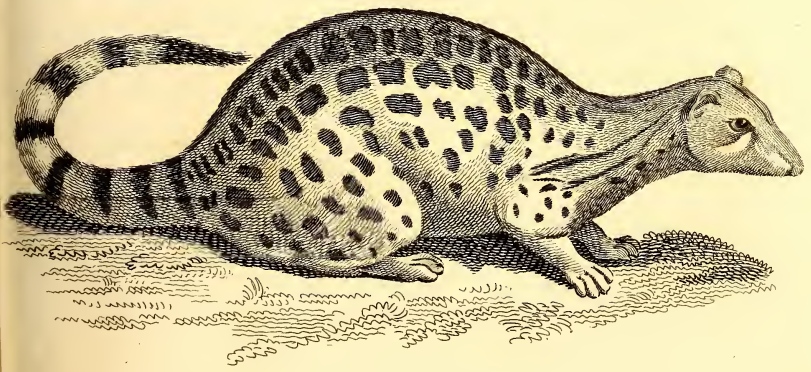
THE Fossane appears to be so nearly allied to the Genet, that it might almost pass for a variety of that animal. Its colours, however, are somewhat bolder or more contrasted than in the Genet, and the rows of spots along the sides still more regularly disposed. Beneath and above each eye is commonly a white patch; and from the hind parts of the head towards the back and shoulders run four black lines. The whole under side of the body is of a dingy white: the tail is annulated with black and white. This animal is a native of Madagascar, Guinea, Bengal, Cochin-China, and the Philippine islands. It is said to be possessed of considerable fierceness, and to be difficultly tamed. It destroys poultry in the manner of the common Weesel. When young it is said to be good food. Its size is that of the Genet.



INDIAN ICHNEUMON.



GENET.



FOSSANE.





## PREHENSILE WEESEL.

*Viverra Caudivolvula*. *V. flava nigro-mixta, cauda unicolore prehensili*. *Lin. Syst. Nat. Gmel. p. 91.*

Yellow W. shaded with dusky, with prehensile tail.

Yellow Macauco. *Pennant Synops. Quadr. p. 138.*

Yellow Weesel. *Pennant Quadr. 2. p. 59.*

Le Kinkajou Potot. *Buff. suppl. 3. p. 251. pl. 51.*

THIS animal was first described by Mr. Pennant in his Synopsis of Quadrupeds, under the name of the Yellow Macauco, a title which was afterwards changed to that of Yellow Weesel, in which genus it forms a kind of anomalous species, having a prehensile tail. It is nineteen inches in length from the nose to the tail, which is seventeen inches long. The nose is short and dusky; the eyes small; the ears short, broad, and flapping, and placed at a great distance from each other: the head flat and broad; the cheeks swelling out; the tongue very long: the legs and thighs short and thick; with five toes to each foot; claws large, slightly hooked, and flesh-coloured. Its colour yellow, shaded with dusky. A blackish or dusky list runs down the back from head to tail, and a similar one half way down the belly. This animal is of gentle manners, active and playful, and hangs by its tail occasionally, in the manner of the prehensile-tailed Monkies. It is supposed to be a native of Jamaica.

*Var. ?*

KINKAJOU.

Le Kinkajou. *Buff. suppl. 3. p. 245. pl. 50.*

Mexican Weesel. *Pennant Quadr. 2. p. 60.*

THIS, which is supposed by Buffon to be the same animal with the preceding, is by Mr. Pennant considered as a distinct species. It is, according to the measures given by Buffon, a larger animal than the preceding, but so great is the general agreement between the two, that it seems not very easy to conceive a specific difference. The general colour is the same in both; the tail in both is prehensile: the tongue extremely long: the manners in both the same. This mentioned by Buffon would seize on birds, and suck the blood without tearing its prey. It was fond of fruits and vegetables of several kinds, and was delighted with sugar and various sweets. It slept much by day, and was lively during the night: had the actions of a Monkey: had a variety of cries, sometimes a kind of barking note, at other times hissing, or variously modified. It was brought from New Spain.



FASCIATED WEESEL.



MALACCA WEESEL.



ZENIC.

*Heath sculp.*

## FASCIATED WEESEL.

*Viverra Fasciata.* *V. caudæ pilis longis nigris et rufescentibus, corpore griseo fasciis sex nigris longitudinalibus vario, subtus albo.* *Lin. Syst. Nat. Gmel. p. 92.*

Grey W. with six longitudinal black bands.

Chat sauvage à bandes noires des Indes. *Sonner. voy. 2. p. 143. pl. 90.*

THIS, says Mons. Sonnerat, measures two feet from head to tail, which is nine inches long: it has two cutting-teeth in each jaw; those of the inferior being the strongest: sixteen canine-teeth in each jaw: five toes on each foot, with strong crooked claws: body long, covered with even and close-set hair; legs short; tail slender, almost as long as the body, and ending in a point, like that of a Cat: it is marked with black and reddish hairs, which are longer than those of the body. This creature is of a grey-colour, tinged with reddish on the lower parts of the head, neck, legs, and feet: the belly is white. On the body are six bands of black, four of which are strait, beginning at the back of the head, and going along the body to the tail, where they terminate: the two others, which are on each side the belly, are waved as it were: they begin at the shoulders, and terminate by rounding off on the hind parts; and beneath their termination is a smaller bifid one over the thigh. The eyes are lively, and of a yellow-colour, with a cast of red: the pupil, in some views, appearing oblong. This species is a

native of India, and was first described and figured by Mons. Sonnerat.

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MALACCA WEESEL.

*Viverra Malaccensis.* *V. cauda nigro annulata elongata, corpore griseo supra nigro-guttato, maculis quatuor rotundis supra oculos, fasciis colli dorsique tribus nigris.* *Lin. Syst. Nat. Gmel. p. 92.*

Grey W. with longitudinal black stripes on the neck and rump, and round black spots on the sides.

La Civette de Malacca. *Sonner. voy. 2. p. 144. pl. 91.*

THIS, a native of Malacca, is one of those animals which we owe to the assiduity of Mons. Sonnerat. He says it is of the size of a domestic Cat, and that it has the same character and manners. The whole animal is of a pearl-grey, deepest on the upper parts: the snout is longish; the ears small and round, and the limbs short; the claws five in number, weak, crooked, and retractile. The top of the head is black; and it has four round black spots above each eye, situated longitudinally: the eyes are small and black; the pupil, in some views, oblong. Over the neck run three longitudinal black bands, commencing behind the head, and terminating at the shoulders; and three other bands commence over the loins and terminate at the tail: there is also another band running along the middle of the belly. On each side the body and thighs are thirty round black

spots, symmetrically arranged in rows, viz. three rows on each side, and one over the back: the tail, which is longer than the body, is marked with a great many alternate black and grey circles. From the above description, as well as from Sonnerat's figure, it appears that this animal is much allied to the Genet and the Fossane. Mr. Sonnerat tells us it lives by chase; and is very nimble in mounting trees, &c. it is a fierce creature, and if only wounded, when shot at, will turn back and attack the aggressor. It diffuses a powerful musky odour, which is owing to a peculiar receptacle like that of the Civet Cat and some others of this genus. The Malays collect the fluid thus secreted, and pretend that it is stimulant and stomachic. It is much esteemed for these qualities by the Chinese, who purchase it of the Malays.

The animal described and figured in the 7th supplemental volume of Buffon, under the title of *Genette du Cap de Bonne Esperance*, appears to me to be no other than a variety of the above species. It is said to have been communicated by Mons. Sonnerat by the name of *Chat musqué du Cap de Bonne Esperance*. The figure represents it white, with black stripes and spots.

The *Ermined Weesel* of Mr. Pennant, described and figured in the additions to the History of Quadrupeds, from a drawing communicated by General Davies, is, perhaps, another variety. It is white, with the neck and whole body spotted with ermine-like black spots disposed in rows:

The tail is annulated with black, and slightly tufted with black at the end: the ears short, rounded, and naked, and within of a fine pink-colour. It is said to be a native of Cochin-China.

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TIGERINE WEESEL.

*Viverra Tigrina.* *V. cauda annulata, apice fusca, corpore cinereo fusco-maculato, stria a capite ad caudam producta nigra.* *Lin. Syst. Nat. Gmel. p. 91.*

Yellowish-grey W. with brown variegations, annulated tail tipped with black, and a black stripe from head to tail.

Chat-Bizaam. *Vosmaer descr. Amst. 1771.*

Blotched Cat. *Pennant Quadr. 1. p. 298.*

THIS animal was described by Mr. Vosmaer, from a specimen shewn at Amsterdam. It is of the size of a Cat, and of mild manners. The body is of a cinereous brown-colour, with a black stripe from head to tail, and spotted on the sides with brown: the tail is annulated, and has a brown tip. Mr. Pennant, in the last edition of his History of Quadrupeds, refers this animal to the Genus *Felis*, and, indeed, from Mr. Vosmaer's figure, it should seem to have, at least, equal affinity to that genus as to the present. Mr. Schreber, however, makes it a *Viverra*.



## MARTIN.

Viverra Foina.

Mustela Foina. *M. pedibus fissis\**, corpore fulvo nigricante, gula alba. *Lin. Syst. Nat. Gmel. p. 95.*

Blackish-fulvous W. with white throat.

Martes domestica. *Gesn. Quadr. 765. Aldr. dig. p. 332.*

Fouine. *Buff. 7. p. 161. pl. 18.*

Martin. *Pennant Quadr. 2. p. 41.*

THE Martin is an animal of a highly elegant appearance. Its general length, from nose to tail, is about a foot and half, and the tail is ten inches long. The Martin is of a blackish tawny colour, with a white throat; and the belly is of a dusky-brown; the tail is bushy or full of hair, and of a darker colour than the other parts: the ears are moderately large and rounded, and the eyes lively. This animal is a native of most parts of Europe; inhabiting woods and fields, and preying on birds and other small animals. If taken young, it may be easily tamed, and even rendered domestic. It breeds in the hollows of trees, and brings forth from three to five young. The skin is used as a fur.

\* The words *pedibus fissis*, or with divided feet, in opposition to *pedibus palmatis*, or webbed feet, are, of course, unnecessary in the present arrangement, in which the Otters form a separate genus. They are, therefore, purposely omitted in all the following specific characters belonging to this genus.

## PINE MARTIN.

Viverra Martes.

Mustela Martes. *M. corpore fulvo nigricante, gula flava.* Lin.

*Syst. Nat. Gmel. p. 95.*

Blackish-fulvous W. with yellow throat.

Martes. *Aldr. dig. 331.*

Martes Abietum. *Raj. Quadr. 200.*

Marte. *Buff. 7. p. 186. pl. 22.*

Pine Martin. *Pennant Quadr. 2. p. 41.*

THIS animal so extremely resembles the preceding as scarce to be distinguished from it by any other character than that of the yellow throat and breast: it is, however, generally said to have the head rather shorter than the common Martin. It frequents pine-woods in particular, and is accordingly found in such countries as most abound in that species of timber. In England it is much less frequent than the former, but in some parts of Germany, Sweden, &c. as well as in North America, it is a very common animal. It is said not to be found in Siberia. It never frequents houses, as the common Martin occasionally does; but confines itself altogether to the woods and fields. Its fur is considered as of a far superior quality to that of the former species, and the skins form a great article of commerce: those which are found about the region of Mount Caucasus are esteemed finer than any others: in these the throat is of an orange-colour. Some naturalists have supposed the Pine and Common Martin to be no other than varieties of the same species;

but the Count de Buffon considers them as perfectly distinct, and observes that no variation is ever known to take place in the colours, or the manners of the two animals; but that the one confines itself entirely to the deep recesses of the forests, while the common Martin approaches our habitations, and takes up his abode in old buildings, hay-lofts, holes of walls, &c. Both species have an agreeable kind of musky smell. Buffon affirms that the Pine Martin frequently usurps the nest of the Squirrel, as well as of the Buzzard, &c. in order to breed in, and sometimes dislodges the Woodpeckers from their holes for the same purpose. It is said to produce seven or eight young at a birth.

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 SABLE.

Viverra Zibellina.

Mustela Zibellina. *M. corpore obscure fulvo, fronte exalbida, gutture cinereo. Lin. Syst. Nat. Gmel. p. 96.*

Blackish-fulvous W. with whitish front, and grey throat.

Mustela Sobella. *Gesn. Quadr. p. 768.*

Mustela Zibellina. *Aldr. dig. p. 335.*

Zibeline. *Buff. 13. p. 309.*

Sable Weesel. *Pennant Quadr. 2. p. 43.*

THE Sable is greatly allied to the Martin in its general appearance, but has a longer or sharper head, and more lengthened ears. Its general colour is a deep glossy brown; the hair being ash-

coloured at the roots and black at the tips: the chin is cinereous, and the edges of the ears yellowish. Its size is equal to that of the Martin; but, exclusive of other differences, a principal one consists in the tail, which is much shorter in proportion than in the Martin. The Sable is an inhabitant of the northern parts of Asia, and is an extremely important article in the fur trade. It principally lives in holes under ground, especially under the roots of trees, and sometimes, like the Martin, forms its nest in the hollows of trees. It is an active, lively animal, preying, in the manner of the Martin, on the smaller quadrupeds, birds, &c. Like the Martin it is also most lively during the night, and sleeps much by day. In autumn the Sable is said to eat cranberries, whortles, &c. It brings forth early in the spring, and has from three to five young at a time. The chase of the Sable, according to Mr. Pennant, was, during the more barbarous periods of the Russian empire, the principal task of the unhappy exiles who were sent into Siberia, and who, as well as the soldiers sent there, were obliged to furnish, within a given time, a certain quantity of furs; but, as Siberia is now become more populous, the Sables have in great measure quitted it, and have retired farther to the north and east, into the desert forests and mountains.

Sables are numbered among the most valuable of furs. From an abstract drawn up by the late Dr. Forster, from Muller's account of its commercial history, it appears that the price

varies from one to ten pounds sterling and above. The blackest and those which have the finest bloom or gloss are reputed the best. The very best are said to come from the environs of *Nertchisk* and *Yakutsk*, and in this latter district, the country about the river *Ud* sometimes affords Sables of which a single fur is sold at the rate of sixty or seventy rubles, or twelve or fourteen pounds sterling. Sometimes the furs of Sables are fraudulently dyed, and otherwise prepared, in order to give them a more intense colour, but these are very inferior to the fine natural ones, and are distinguishable by a kind of withered or dull appearance of the hair itself when accurately inspected.

The Sable occurs in North America, as well as in Asia; the American Sables are said to be chiefly of a chesnut-colour, and more glossy, but coarser than the Siberian Sables. It is necessary to observe, that the Sable varies in its cast of colour at different seasons and in different districts: instances have been known, though rarely, of its being found perfectly white.

## FISHER.

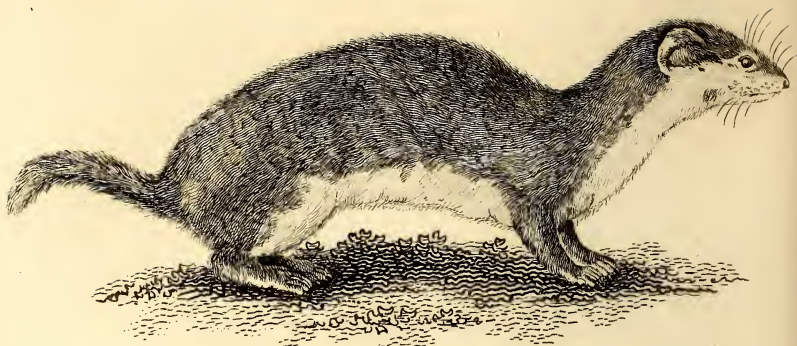
*Viverra Piscator.* *V. dorso abdomine pedibus cauaaque nigris, lateribus fuscis, facie subcinerea, naso nigro.*

W. with the back, belly, feet and tail black, the sides brown, the face subcinereous with black nose.

Fisher Weesel. *Pennant Quadr.* 2. p. 50.

THIS seems described only by Mr. Pennant, who informs us that, notwithstanding its name, it is not an amphibious animal. It is a native of North America, where it is supposed, from the number of skins imported, to be by no means uncommon; not less than 580 having been brought in one season from New York and Pennsylvania. It varies in colour, and is sometimes nearly black: its length from nose to tail is twenty-eight inches; of the tail, which is very full and bushy, seventeen: the ears are broad, round, and dusky, edged with white: the fore legs are shorter than the hind: there are five toes on the fore feet, and the same number, but sometimes only four, on the hind; the claws large, white, and crooked. The general colours are described in the specific character.





COMMON WEESEL.



FERRET.



POLECAT.



## POLECAT.

*Viverra Putorius.*

*Mustela Putorius* *M. corpore flavo nigricante, ore auriculisque albis.* *Lin. Syst. Nat. Gmel. p. 96.*

Blackish-tawny W. with whitish muzzle and ears.

*Putorius.* *Gesn. Quadr. 767. Aldr. dig. 329. Jonst. Quadr. 154.*

*Putois.* *Buff. 7. p. 199. pl. 23.*

*Fitchet.* *Pennant Quadr. 2. p. 37.*

The Polecat or Fitchet.

THE Polecat is one of the most remarkable European species of the Weesel tribe. Its colour is an extremely deep blackish-brown, with a tawny cast slightly intermixed: the ears are edged with white, and the space round the muzzle is also whitish. The general length of this animal is seventeen inches, exclusive of the tail, which measures about six inches. The Polecat is found in most parts of Europe, as well as in some of the Asiatic regions, as in Siberia, where it is said to be generally found with the rump of a whitish or yellowish tinge, surrounded with black.

The Polecat commonly forms itself a subterraneous retreat, sometimes beneath the roots of large trees, and sometimes under hay-ricks, and in barns. It preys indiscriminately on the smaller animals, and is very destructive to poultry: it is also, like the Ferret, a cruel enemy to rabbits, which it destroys by sucking their blood, instead of tearing them immediately in pieces. It steals into barns, pigeon-houses, &c. where it occasionally makes great havock; biting off the heads of fowls and pigeons, and then carrying them away

to its retreat; and sometimes it carries off the heads alone. During the summer, however, it principally frequents rabbit-warrens, or the hollow trunks of trees, &c. &c. and prowls about in quest of young birds, rats, field-mice, &c. According to the Count de Buffon, a single family of Polecats is sufficient to destroy a whole warren of rabbits; and he observes, that this would be a simple method of diminishing the number of rabbits where they are too abundant. In Spain the Ferret is said to have been formerly introduced for a similar purpose. The Polecat also preys occasionally on fish: of which a curious instance is recorded in Mr. Bewick's History of Quadrupeds. During a severe storm, one of these animals was tracked in the snow from the side of a rivulet to its hole, at some distance from it: as it was observed to have made frequent trips, and as other marks were seen in the snow, which could not easily be accounted for, it was thought a matter worthy of more diligent enquiry; its hole was accordingly examined; the animal taken; and eleven fine eels were discovered to be the fruits of its nocturnal excursions; the unusual marks in the snow having been made by the motion of the eels while dragged along in the animal's mouth. That the Polecat, however, sometimes feeds in this manner, is, in reality, no new observation; since Aldrovandus assures us that it will occasionally take up its residence in the hollow banks of rivulets, in order to lie in wait for, and prey upon, fish. The Polecat is also delighted with milk,

and will visit the dairy in order to indulge in this article: it has been known to attack bee-hives in the winter season, and to feed on the honey. The spring is the season in which it breeds; the female producing three or four at a birth, which she is said to suckle but a short time, accustoming them early to suck the blood of the animals which she brings to them, as well as eggs, &c.

The Polecat has been known to breed with the Ferret, and it is said to be a practice with warreners, who keep these animals, to procure a mixed breed from time to time, which are of a colour between the Ferret and the Polecat, or of a dingy yellowish-brown.

The Polecat is a strong and active creature, and will spring with great vigour and celerity when preparing to attack its prey, or to escape from pursuit; at which time it arches its back considerably, in order to assist its effort. It is of a smell proverbially fetid, being furnished, like several others of the Weesel tribe, with certain receptacles which secrete a thickish fluid of a peculiarly strong and offensive odour. The fur, however, is beautiful, and the skin, when properly dressed, is numbered among the commercial furs, and used for tippets and other articles of dress. It is added by Aldrovandus, that the furriers endeavour to obtain skins taken from such animals as have been killed during the winter, as being far less fetid than those killed in the spring and summer.

## FERRET.

Viverra Furo. *V. flava, oculis rubicundis.*

Yellow W. with red eyes.

Mustela Furo. *M. oculis rubicundis.* *Lin. Syst. Nat. Gmel. p. 97.*

Furo. *Gesn. Quadr. 762.*

Mustela Sylvestris. *Aldr. dig. 327.*

Furet, & Furet-putois. *Buff. 7. p. 209. pl. 25, 26.*

Ferret. *Pennant Quadr. 2. p. 40.*

OF similar manners to the Polecat is the Ferret, the natural history of which has been so well detailed by the Count de Buffon, that it is scarce possible to add any thing material to that elegant author's description. The Ferret in general form resembles the Polecat, but is a smaller animal; its usual length being about fourteen inches, exclusive of the tail, which is about five. Linnæus, in the twelfth edition of the *Systema Naturæ*, seems to entertain a doubt whether it may be truly distinct from the Polecat: it is, however, a native of Africa, and not of Europe, and supports with difficulty the cold of an European winter; whereas the Polecat is found not only in the temperate, but also in the colder parts of the European regions; to which may be added, that, exclusive of its smaller size, it is of a more slender shape, and the snout is sharper in proportion than in the former animal. The Ferret is used for rabbit-hunting in preference to the Polecat, because it is more easily tamed; but it is necessary to keep it in a warm box, with wool or some other substance in which it may imbed itself. It sleeps

almost continually, and when awake, immediately begins to search about for food: it is usually fed with bread and milk; but its favourite food is the blood of the smaller animals. It is by nature an enemy to the Rabbet; and it is affirmed by Buffon, that whenever a dead Rabbet is presented for the first time to a young Ferret, he flies upon it in an instant, and bites it with great fury; but if it be alive, he seizes it by the throat and sucks its blood. When let into the burrows of Rabbits, the Ferret is always muzzled, that it may not kill the Rabbits in their holes, but only drive them out in order to be caught in the nets. If the Ferret be put in without a muzzle, or happens to disengage himself from it, he is often lost; for after sucking the blood of the Rabbet, he falls asleep, and cannot be regained, except sometimes by smoking the hole, in order to oblige him to come out; but as this is a practice which does not always succeed, it continues to lead a rapacious and solitary life in the warren, as long as the summer continues, and perishes by the cold of the winter.

We are told by Strabo that the Ferret was brought into Spain from Africa, and it is supposed that this was done in order to free that country from the vast number of Rabbits with which it was overrun; and from Spain it was gradually introduced into other European countries. The Ferret is an animal of irascible nature, and, when irritated, his odour, which is not at all times disagreeable, becomes far more so than usual. The

general colour of the Ferret is a very pale yellowish-brown, or cream-colour; and the eyes are of a bright and lively red.

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COMMON WEESEL.

Viverra Vulgaris.

Mustella Vulgaris. *M. corpore ex fusco-rufo, subtus albo, cauda concolore.* *Lin. Syst. Nat. Gmel. p. 99.*

Pale reddish-brown W. white beneath; with tail similar in colour to the body.

Mustela vulgaris. *Aldr. dig. p. 307.*

Mustela. *Gesn. Quadr. 752.*

Belette. *Buff. 7. p. 225. pl. 29. f. 1.*

β. Mustela Nivalis. *M. corpore albo, caudæ apice, vix pilis ullis nigris.*

Common Weesel. *Pennant Quadr. 2. p. 33.*

THE Weesel is one of the smallest species in this numerous tribe of quadrupeds. Its general length is about seven inches, exclusive of the tail, which measures near two inches and a half. Its colour is a pale reddish or yellowish-brown, and beneath it is entirely white; but below the corners of the mouth, on each side, is a brown spot: the ears are small and rounded, and the eyes are black. This little animal is possessed of a considerable degree of elegance in its aspect, and its motions are light and easy; but it has the same unpleasant smell with the Stoat, and some other species. It is an inhabitant of the cavities under the roots of trees, as well as of banks near rivulets, &c. from which it occasionally sallies out in

quest of birds, field-mice, &c. It even attacks young Rabbits and other animals of far superior size to itself; but its chief prey, at least in this country, seems to be the field-mouse, of which it destroys great multitudes. From the extreme flexibility of its body, and its wonderful activity, it readily ascends the sides of walls, and by this means pursues its prey into the most distant retirements; and is a frequent inhabitant of barns and granaries. The Weesel produces four or five young at a time; preparing for them a bed of moss, grass, &c. An instance is given by the Count de Buffon of a Weesel's nest being found in the carcase of a Wolf, which had been hung up near a wood: the nest was made in the cavity of the thorax. The Count de Buffon, in his first description of the Weesel, affirmed that it was a perfectly untameable animal; but he afterwards received very authentic accounts of Weesels which had been so completely tamed as to exhibit every mark of attachment to their benefactors, and to be as familiar as a cat or lap-dog. An account of this kind is given by one of his correspondents in the 7th supplemental volume of his Natural History, which amply confirms the truth of this; and, among other curious particulars, it is observed, that, when asleep, the muscles of this little animal are in a state of extreme flaccidity, so that it may be taken up by the head, and swung backwards and forwards, in the manner of a pendulum, several times before it wakes. Mademoiselle de Laistre, in a letter on this subject

gives a very pleasing account of the education and manners of a Weesel, which she took under her protection. She affirms, that, far from having any predilection for meat in a state of putrifaction, it, on the contrary, always delighted most in that which was perfectly fresh. For the two or three first days it was fed with warm milk; and afterwards with veal, beef, or mutton. It frequently eat from her hand, and seemed to be more delighted with this manner of feeding than any other. It was very fond of milk. "If I pour (says M. de Laistre) some milk into my hand, it will drink a good deal, but if I have not this complaisance, it will scarce drink a drop. When it is satisfied it generally goes to sleep: my chamber is the place of its residence, and I have found a method of dispelling its strong smell by perfumes: by day it sleeps in a quilt, into which it gets by an unsown place on the edge, which it has discovered. By night it is kept in a wired box or cage, which it always enters with reluctance, and leaves with pleasure. If it be set at liberty before my time of rising, after a thousand little playful tricks, it gets into bed, and goes to sleep in my hand or on my bosom. If I am up first, it spends a full half hour in caressing me, playing with my fingers like a little dog, jumping on my head, on my neck, running round my arms and body, with a lightness and elegance which I never beheld in any other animal. If I present my hands, at the distance of three feet, it jumps into them without ever missing. It shews a great



deal of finesse and cunning in order to compass its ends, and seems to disobey certain prohibitions merely through frolic. During all its actions it seems solicitous to divert and to be noticed; looking, at every jump, and at every turn, in order to see whether you observe it or no: and if no notice be taken of its gambols, it ceases them immediately, and betakes itself to sleep; and even when most asleep, if you wake it, it instantly resumes its gaiety, and frolics about in as sprightly a manner as before. It never shews any ill-humour, unless when confined, or teized too much, in which case it expresses its displeasure by a sort of murmur, very different from that which it utters when pleased. In the midst of twenty people this little animal distinguishes my voice, seeks me out, and springs over every body to come at me. His play with me is the most lively and caressing; with his two little paws he pats me on the chin with an air and a manner expressive of delight: this, and a thousand other preferences, shew that his attachment to me is real. When he sees me dressed for going out, he will not leave me, and it is not without some trouble that I can disengage myself from him; he then hides himself behind a cabinet near the door, and jumps upon me, as I pass, with so much celerity that I frequently can scarce see him.

“ He seems to resemble a squirrel in vivacity, agility, voice, and manner of murmuring. During the summer, he squeaks and runs about all night long; but, since the commencement of the

cold weather, I have not observed this. Sometimes, when the sun shines, while he is playing on the bed, he turns and tumbles about and murmurs for a while.

“ From his delight in drinking milk out of my hand, into which I pour a very little at a time, and his custom of sipping the little drops and edges of the fluid, it should seem that he drinks dew in the same manner. He very seldom drinks water, and that only with great caution, and in defect of milk; and then seems only to refresh his tongue once or twice: he even seems to be afraid of water. During the hot weather it rained a good deal. I presented to him some rain-water in a dish, and endeavoured to make him go into it, but could not succeed. I then wetted a piece of linnen cloth in it, and put it near him, when he rolled upon it with extreme delight.

“ One singularity in this charming animal is his curiosity; it being impossible to open a drawer or a box, or even to look at a paper, but the little creature will examine it also. If he gets into any place where I am afraid of permitting him to stay, I take a paper or a book, and look attentively at it; when he immediately runs upon my hand and surveys with an air of curiosity whatever I happen to hold. I must farther observe, that he plays with a young Cat and Dog, both of some size, getting about their necks, backs, and paws, without their doing him the least injury.”

But we have also the testimony of Aldrovandus in favour of the Weesel's being sometimes completely tamed; so that Buffon might have found an exception to his general character of the animal, even if he had not received these modern attestations. Aldrovandus even expressly asserts, that Weesels are easily tamed, and that, when tame, they are remarkably playful; adding at the same time, from Cardan, that their teeth should be rubbed with garlick, after which they will not presume to bite.

“ *Cæterum animadvertendum est inter animalia mustelas facile cicurari, & præcipue quando ad mentem Cardani, illarum dentes allio perfri-cantur, quia imposterum quempiam mordicus apprehendere non audent, et cicuratae collusionibus quotidie indulgent.*”

Aldrovandus also quotes (from Strozza) part of an elegy on the death of a tame Weesel.

Nil poterat puero te gratius esse, nec illi  
 Morte tua quicquam tristius esse potest.  
 Tu digitos molli tentabas improba morsu,  
 Porrecto ludens semisupina pede,  
 Et mollem e labiis noras sorbere salivam,  
 Et quiddam exiguo murmure dulce queri.

Loving and lov'd, thy master's grief!  
 Thou could'st th' uncounted hours beguile,  
 And nibbling at his finger soft  
 Watch anxious for th' approving smile:  
 Or, stretching forth the playful foot,  
 Around in wanton gambols rove,  
 Or gently sip the rosy lip,  
 And in light murmurs speak thy love.

Lastly, Aldrovandus affirms that the Weesel sometimes carries her young in her mouth from place to place several times in a day, when she suspects that they will be stolen from her.

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STOAT.

*Viverra Erminea.*

*Mustela Erminea.* *M. caudæ apice atro.* *Lin. Syst. Nat. Gmel.*  
p. 98.

W. with the tip of the tail black.

*Mustela hieme alba, æstate supra rutila, infra alba, caudæ apice nigro.* *Briss. Quadr. p. 176.*

Roselet. *Buff. 7. p. 240. pl. 31. f. 1.*

L'Hermine. *Buff. 7. p. 240. pl. 29. f. 2.*

Stoat and Ermine. *Pennant Quadr. 2. p. 35.*

THIS animal much resembles the Weesel in its general appearance, as well as in colour, but is considerably larger; the body, exclusive of the tail, measuring ten inches, and the tail five and a half: the tip of the tail is also constantly black, whatever may be the gradation or cast of colour on the body; for the Stoat, in the northern regions, becomes milk-white during the winter, in which state it is commonly called the *Ermine*. It is sometimes found of this colour in our own country; and instances are not very uncommon in which it appears parti-coloured, or white in some parts, and brown in others, the change of colour having not been completed. Its smell is strong and unpleasant. The Stoat is similar in



STOAT.



its manners to the Weesel; living in hollows under the roots of trees, in banks near rivulets, &c. and preying on all manner of smaller animals, as well as on Rabbits, &c. It does not, however, like the Weesel, visit houses, but confines itself to the fields. It is an inhabitant both of the northern parts of Europe and of Asia. It occurs in Kamtschatka and the Kurile isles. It is also said to be found in several parts of North America.

In Norway and in Siberia the skins are a great article of commerce; most of the Ermines or white Stoat skins being brought from thence. In Siberia the Stoat is said to be found in the birch forests, but not in the pine forests; and the skins are sold on the spot, according to Mr. Pennant, at from two to three pounds sterling per hundred. The animals are either taken in traps or shot with blunt arrows.

The figure of the Ermine here engraved is from an elegant drawing in the British Museum, by the celebrated Edwards.

## GALERA.

Viverra Galera.

Mustela Galera. *M. Tota fusca.* *Lin. Syst. Nat. Gmel. p. 95.*  
W. entirely brown.

Vansire. *Buff. 13. p. 167. pl. 21.*

Tayra ou Galera. *Buff. 15. p. 155.*

Madagascar Weesel. *Pennant Quadr. 2. p. 51.*

Guinea Weesel. *Pennant Quadr. 2. p. 53.*

THE length of this species is about fourteen inches from nose to tail, and of the tail, which tapers to the end, about ten: the ears nearly naked, round, and lying flat to the head: the tongue rough: the shape of the body like that of a rat: the hair is rough. It is an inhabitant of Madagascar and of Guinea.

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 GUIANA WEESEL.

Viverra Barbara.

Mustela Barbara. *M. atra, collo subtus macula alba triloba.*  
*Lin. Syst. Nat. Gmel. p. 94:*

Black W. with a trilobate white spot beneath the throat.

Guiana Weesel. *Pennant Quadr. 2. p. 53.*

IT is of the size of a Martin, and is black, with a small ash-coloured space between the eyes, and a trilobated white spot beneath the throat. It is a native of Brasil and Guiana, and is said to have a musky smell.



## WHITE-CHEEKED WEESEL.

*Viverra Quadricolor.* *V. cinereo flavescens, gula flava, capite, cruribus, caudaque nigris, genis mentoque albis.*

Yellow-cinereous W. with black head, legs, and tail, bright-yellow throat, and white cheeks and chin.

White-cheeked Weesel. *Pennant Quadr. 2. p. 52.*

THIS animal measured from nose to tail eighteen inches, and the tail the same: the ears were rounded; the nose broad and blunt: the head flat; the irides dusky; the face, crown, legs, rump, and tail, black: the back and belly pale yellow intimately mixed with cinereous; the throat of a rich yellow, and the chin and cheeks white.

It was described by Mr. Pennant from a living specimen in 1772. Its native place was unknown.

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 PEKAN.

*Viverra Canadensis.*

*Mustela Canadensis.* *M. corpore fulvo nigricante, pectore macula alba.* *Lin. Syst. Nat. p. 95.*

Blackish-fulvous W. with white pectoral spot.

Le Pekan. *Buff. 13. p. 304. pl. 42. Pennant Quadr. 2. p. 51.*

THIS species has the shape of a Martin, and is more than a foot and half in length from nose to tail; the tail being near one foot long. Its general colour is black-fulvous, with a white patch between the fore legs, and on the sides of the body is a tinge of grey: the ears are a little pointed:

the fur is very soft and glossy: the toes covered with thick hair both above and below. Native of North America. This species, as figured by Schreber, has extremely the appearance of one of the Otter tribe.

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SARMATIA WEESEL.

*Viverra Sarmatica.*

*Mustela Sarmatica.* *M. corpore supra ex luteo fuscoque varia.*  
*Linn. Syst. Gmel. p. 97.*

W. variegated on the upper parts with brown and yellow.

*M. peregrina*, pedibus fissis, capite et corpore subtus aterrimis, corpore supra brunneo luteoque vario, ore fascia frontali auriculisque albis. *Guldenstedt nov. comm. petrop. 14. p. 441,—445. t. 10.*

*Mustela præincta et Perewiaska.* *Rzaczynski hist. nat. Pol. p. 328 and 222.*

*Vormela* (germanice Wormlein). *Gesn. Quadr. p. 768.*

THE Sarmatian Weesel measures about fourteen inches to the tail, and the tail six inches. The head, feet, and under sides of the body, are black, the upper parts brown, variegated with irregular spots or patches of tawny yellow: the mouth is surrounded with white; the face is crossed by a white band beyond the eyes, passing beneath the ears on each side down to the throat: another white band crosses the back part of the head, and runs down on each side over the shoulders; and the upper part of the neck is varied with yellow: the tail is black, but intermixed with white and fulvous hairs. This species inha-

bits Poland and the southern provinces of Russia. It is said to be voracious, fierce, and untameable: residing in holes, &c. and preying on the smaller quadrupeds, &c.

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SIBERIAN WEESEL.

*Viverra Sibirica.*

*Mustela Sibirica. M. fulca, palmis plantisque hirsutissimis.*

*Lin. Syst. Nat. Gmel. p. 98.*

Fulvous W. with extremely hairy feet.

THIS is about the size of the Sarmatian Weesel. The face is blackish, but white about the nostrils, and spotted towards the eyes: the rest of the animal is of a deep fulvous or almost a fox-colour: the throat sometimes spotted with white: the tail very full of hair, and of a deeper colour than the rest of the body. The feet are very thickly furred: the body more slender than that of the Polecat, and resembling that of the Stoat in shape.

## TOUAN.

Viverra Touan. *V. ferruginea, subtus alba, cauda versus apicem nuda.*

Ferruginous W. white beneath, with the tail naked towards the tip.

Le Touan. *Buff. suppl. 7. p. 252. pl. 61.*

THIS is a very small species, less than the common Weesel, and is a native of Cayenne, living in hollow trees, and feeding on worms and insects. The upper part of the snout, the head, and the whole body as far as the tail, is blackish; the sides of the body and limbs bright ferruginous; and the lower parts, from throat to tail, white: the tail towards the tip is bare.

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 QUIQUI.

Viverra Quiqui.

Mustela Quiqui. *M. corpore fusco, rostro cuneiformi.* *Lin. Syst. Nat. Gmel. p. 99.*

Brown W. with cuneiform snout.

Quiqui. *Molina hist. nat. Chili. 4. p. 258.*

THIS species inhabits Chili, living under ground and feeding on mice, &c. It is principally distinguished by its cuneiform or wedge-shaped snout: the ears are short and round, with a white spot in the middle: the legs and tail short: the feet like those of a Lizard: the length of the animal from nose to tail thirteen inches.

## CUJA.

Viverra Cuja. *V. nigra, rostro resimo.*

Black W. with turned-up snout.

Cuja. *Molina Chili. 272.*

THIS animal is said by Molina to have a great resemblance, in shape, manners, and teeth, to a Ferret; but has black hair and eyes, and a turned-up snout: the tail is as long as the body, and very full of hair. It is a native of Chili, and preys on mice. It breeds twice a year, and has three or four young at a time.

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 SPOTTED WEESEL.

Viverra Maculata. *V. fusca, albo maculata.*

Dusky W. spotted with white.

Spotted Martin. *Phillips's voy. p. 276. pl. 46.*

THIS, which is described in Governor Phillips's voyage to Botany Bay, is said to be of the size of a large Polecat, measuring eighteen inches from nose to tail, and the tail nearly as much: the visage is of a pointed shape, and the form of the whole animal such as not ill to resemble that of the Fossane. The colour is said to be black, marked all over, the tail not excepted, with irregular blotches of white: the tail is represented as thin, and gradually tapering to the end: the whiskers very long, and the general appearance of the animal such as to resemble the *Viverrine*

*Opossum* in most particulars, except in the appearance of the tail.

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The following obscure and somewhat uncertain species of this numerous genus, seem scarce sufficiently known to justify a decided specific character for each. I shall, therefore, merely mention them in as few words as possible.

GREY-HEADED WEESEL.

La Grande Marte de Guiane. *Buff. suppl. 7. p. 250. pl. 60.*

THIS is black, with the head and sides of the neck greyish; and the throat and under side of the neck white. It measures above two feet from nose to tail, which measures eighteen inches. It is a native of Guiana.

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SOUTH AMERICAN WEESEL.

La Fouine de la Guiane. *Buff. suppl. 3. p. 161. pl. 23.*

THIS measures from nose to tail twenty-one inches and a half, and has a general resemblance to a Polecat, but the tail is rather shorter in proportion: the nose is long and sharp, and with the cheeks, throat, and sides of the neck, black: the forehead and sides of the head, to the ears, white: the ears short, round, and edged with white.

From each ear a narrow white stripe extends along the sides of the neck: the general colour of the animal is dark grey; the legs and feet black, with a tinge of red; the tail chesnut.

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## WOOLLY WEESEL.

La petite Fouine de la Guiane. *Buff. suppl.* 3. p. 162. pl. 24.

THIS is near sixteen inches long from nose to tail, and the tail near nine inches: the nose is long and slender, and the upper jaw longer than the lower: the tail is taper, and, from the figure, seems to be bare at the point: colour not mentioned: the hair is soft and woolly. It is a native of Guiana.

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## MUSKY WEESEL.

Musky Weesel. *Pennant Quadr.* 2. p.

THIS has the upper part of the body cinereous, dashed with yellow, and marked with some obscure dusky lines: the nose, part of the cheeks, the legs, and end of the tail, black: on the middle of the cheeks is a white spot. It is a native of Bengal, and is said to have a strong musky scent: size not mentioned: described by Mr. Pennant from a drawing.

## SLENDER-TOED WEESEL.

THIS is a small species, measuring from nose to tail seven inches, and the tail is of the same length: the ears short and rounded: the fur grizzled minutely with black and rufous: the toes five in number, and very long and slender; each lobated at the bottom of the first joint: claws small: the upper part of the toes and part of the legs covered with short velvet-like down: the tail is bushy, and covered with long rat-coloured hair. This species is described by Mr. Pennant from a drawing. It is said to be a native of Cochin-China.







COMMON OTTER.

## LUTRA. OTTER.

*Generic Character.*

<i>Dentes</i> , ut in genere antecedente.		<i>Teeth</i> as in the preceding genus.
<i>Pedes</i> palmati.		<i>Feet</i> webbed.

THE Otters or *Lutræ* agree with the animals of the last genus, and particularly with those of the division entitled *Mustelæ*, in their general character, but are furnished with webbed feet.

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 COMMON OTTER.

*Lutra Vulgaris.* *L. fusca plantis nudis, cauda corpore dimidio brevior.*

Brown O. with naked feet, and tail half the length of the body.

*Mustela Lutra.* *M. plantis palmatis nudis, cauda corpore dimidio brevior.* *Lin. Syst. Nat.* p. 66.

*Lutra.* *Gesn. Quadr.* p. 775. *Aldr. dig.* p. 292.

*Loutre.* *Buff.* 7. p. 134. *pl.* II.

Greater Otter. *Pennant Quadr.* 2. p. 77.

THE common Otter is found in almost every part of Europe, as well as in the colder regions of Asia; inhabiting the banks of rivers, and feeding

principally on fish. It occurs also in the northern parts of America, and particularly in Canada, where it appears to arrive at a larger size than in Europe. In the river Euphrates, on the contrary, it is said to be found no larger than a common Cat; but it is probable, that this is in reality a different species, viz. the *L. Lutreola*, or smaller Otter, hereafter to be described. The usual length of the Otter is near two feet from nose to tail, and of the tail about sixteen inches. Its colour is a deep brown, with a small light-coloured patch on each side the nose, and another under the chin: the throat and breast are ash-coloured: the head is flat and broad: the mouth small; the teeth strong; the lips very thick and muscular; the ears short and rounded; and the eyes small, and situated near the nose: the neck is very thick; the legs short and thick, loosely joined to the body, and so placed as to be capable of being brought on a line with the body, and of performing the office of fins; the toes, which are five in number on all the feet, are connected by broad and strong webs, and the whole foot is naked or without hair. “The Otter (says Mr. Pennant) shews great sagacity in forming its habitation: it burrows under ground in the banks of some river or lake; and always makes the entrance of its hole under water; working upwards to the surface of the earth, and, before it reaches the top, makes several *holts* or lodges, that in case of high floods it may have a retreat; for no animal affects lying drier; and then makes a minute orifice for the

admission of air: it is farther observed, that this animal, the more effectually to conceal its retreat, contrives to make even this little air-hole in the midst of some thick bush." Though the principal food of the Otter consists of fish, yet it is said that in hard weather, when this its natural prey fails, it will attack the smaller quadrupeds, as well as poultry, &c. The Otter is naturally a very fierce animal, and when hunted with dogs, as is sometimes the practice, will inflict very severe wounds on its antagonists. The female produces four or five young at a birth: this commonly happens early in the spring. The young Otters, if taken at a very early age, may be successfully tamed, and taught by degrees to hunt for fish, and bring them to their master. This taming of Otters and employing them in fishing is mentioned by Aldrovandus (from Albertus Magnus) as a circumstance familiarly known, and more especially, according to Albertus, in Sweden, where he tells us that, in the houses of the great, these animals were kept for that purpose, and would go out, at a signal from the cook, catch fish, and bring it into the kitchen in order to be dressed for dinner!!!

The Count de Buffon, in his description of the Otter, given in the 7th volume of his Natural History, seems inclined to doubt the reality of the Otter's having ever been properly tamed, so as to be rendered serviceable in fishing; but later experience has proved this to be perfectly practicable. An Otter thus tamed has followed its

master like a dog, and been found extremely useful. Instances of this kind are described in Mr. Bewick's work on Quadrupeds. A person near Inverness in Scotland had, according to this writer, a tame Otter, which would follow him wherever he chose, and, if called by its name, would immediately obey. When apprehensive of danger from dogs, it would seek protection from its master, and endeavour to fly into his arms for security. It was frequently employed in catching fish, and would sometimes take eight or ten salmon in a day: these it always made an attempt to break behind the small back fin, if not prevented: as soon as one was taken away, it immediately dived for another, and, when tired, refused to fish any longer; and, after having been rewarded with a part of the spoil, would compose itself to sleep, and in this state was carried home. It would fish in the sea as well as in fresh water. Another person, according to Mr. Bewick, who kept a tame Otter, suffered it to follow him with the dogs, and it was found a very useful assistant in fishing, by going into the water, and driving the trouts, &c. into the nets. It was farther remarkable, that the dogs, though accustomed to hunt Otters, were so far from giving it the smallest molestation, that they would not even hunt an Otter while in its company. This method of fishing with a tame Otter is also mentioned by Vaniere, in his truly Virgilian poem, the *Prædium Rusticum*.

" Si nidum tenerosque feræ deprendere pullos  
 Contigit; absenti sobolem furabere matri;  
 Et dum mollis adhuc ætas facilisque doceri,  
 Piscandi cicurem Lutram formabis ad artes :  
 Namque ubi transverso steterint suspensa fluento  
 Lina; cavernosos rimabitur illa recessus,  
 Ejectos specubus pisces in retia trudens;  
 Ut canis excitos agit in venabula cervos,  
 Et leporum presso sequitur vestigia rostro."

" Should chance, within their dark recess, betray  
 The tender young, bear quick the prize away.  
 Tam'd by thy care, the useful brood shall join  
 The wat'ry chace, and add their toils to thine;  
 From each close lurking-hole shall force away  
 And drive within thy nets the silver prey:  
 As the taught hound the timid stag subdues,  
 Or o'er the dewy plain the panting hare pursues."

Lastly, The Count de Buffon himself, in his sixth supplemental volume, retracts his scepticism on this subject, and has published a letter from the Marquis de Courtivron relative to a tame Otter kept in an abbey at Autun, in the year 1775, &c. This Otter was a female, and had been taken extremely young, and reared with milk till it was two months old, when it was fed with soup, fruits, pulse, meat, fish, &c. which latter, however, it would not eat unless perfectly fresh. It was as tame as a dog, and would come whenever it was called by its name. It would also play with a dog and cat with which it had been early acquainted, but shewed great animosity against other dogs and cats which happened to approach it. This Otter chiefly inhabited a

room, and would lie by night on a bed, and, during the day-time, on a heap of straw provided for it: it would occasionally plunge its head and fore feet into a vessel of water, which always stood near it; and, after shaking itself, would go out into the court yard for exercise, &c. and would often sleep in the sunshine. It seemed in a manner to have lost the natural habits of its kind; since, being carried one day to a pool of water, it seemed afraid, and would not go into it, but only wetted its head and feet, as in its chamber; and when thrown in, to the distance of some feet, it instantly made to the shore, as if in a kind of alarm, and followed readily to the Abbey.

When the Otter, in its natural or uneducated state, has caught a fish, it immediately draws it ashore, and devours the head and upper parts, leaving the remainder; and when in a state of captivity, will eat no fish but what is perfectly fresh, but will prefer bread, milk, &c. The Otter, says Buffon, is as noxious in a fish-pond as the Polecat in a hen-roost; since he frequently kills many more fish than he can eat, and then carries off one in his teeth. The Otter will sometimes devour vegetables of different kinds, and will gnaw the bark and twigs of young trees. The flesh of the Otter is rank and fishy. The Romish church permits the use of it on maigre-days, and Mr. Pennant declares, that, in the kitchen of the Carthusian convent, near Dijon, he saw one preparing for the dinner of the reli-



ous of that rigid order, who are prohibited, during their whole lives, the eating of flesh.

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 SMALLER OTTER.

*Lutra Lutreola. L. fulvo-nigricans, plantis hirsutis, digitis æqualibus, ore albo.*

Blackish-tawny O. with hairy feet, toes equal in length, and white muzzle.

*Mustela Lutreola. M. plantis palmatis hirsutis, digitis æqualibus, ore albo. Lin. Syst. Nat. p. 66.*

*Viverra Lutreola. Pall. spicil. zool. 14. p. 46. t. 3. f. 1.*

Lesser Otter. *Pennant Quadr. 2. p. 80.*

THIS species very much resembles the common Otter, but is much smaller: the body is of a dusky-colour, but with a considerable cast of tawny; the chin and throat white; the ears roundish; the feet broad, webbed, and covered with hair, instead of being naked, as in the former animal. In size it falls far short of the common Otter, measuring about a foot in length. In North America this species is known by the name of Minx, and is said sometimes to leave the water, and prey on poultry, &c. in the manner of a Polecat, biting off the heads and sucking the blood. It is said also to have a fetid smell. In Europe the smaller Otter is chiefly found in Poland and Lithuania, living on fish, frogs, &c. Its fur is very valuable, and next in beauty to that of the Sable.

## SEA OTTER.

Lutra Marina. *L. nigra, plantis pilosis, cauda corpore quadruplo brevior.*

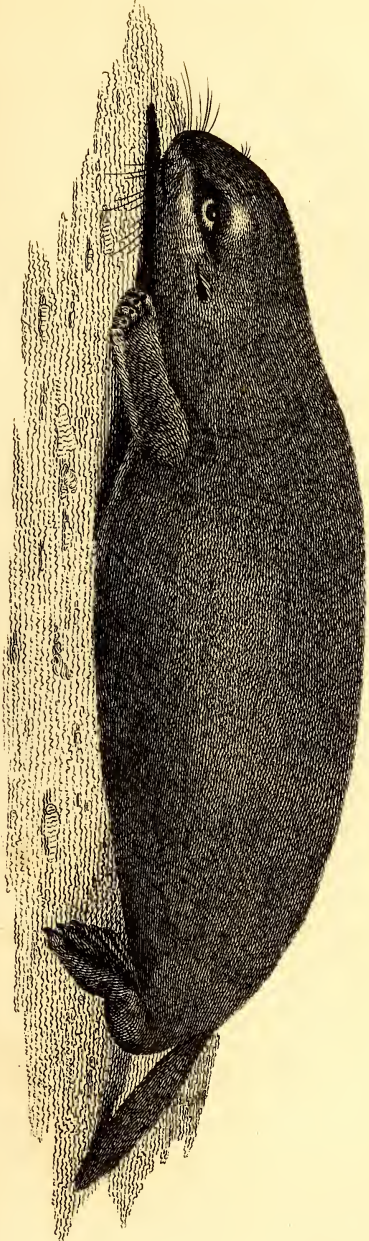
Black O. with hairy feet, and tail four times shorter than the body.

Mustela Lutris. *M. plantis palmatis pilosis, cauda corpore quadruplo brevior.* *Lin. Syst. Nat. p. 66.*

Lutra marina. *Steller nov. comm. Petrop. 2. p. 367. t. 26.*

Sea Otter. *Pennant Quadr. 2. p. 83.*

THIS is the largest of the Otters, measuring about three feet from the nose to the tail, and the tail thirteen inches. The colour of this species is a deep, glossy, brownish-black; the fur being extremely soft and very fine: on the forehead is generally a cast of greyish or silver-colour: the ears are erect, sharpish, and small: the whiskers long and white: the fore legs thick and furnished with four toes, covered with hair, and webbed: the hind feet resemble those of a Seal; the toes being connected by a strong granulated membrane, with a skin skirting the outward toe, as in some of the water-fowl: the tail is short, broad, depressed, and pointed at the end. The Sea Otter has been found of the weight of seventy or eighty pounds. It is sometimes seen of a silvery or hoary tinge. According to Mr. Pennant, it is one of the most local animals we are acquainted with, being entirely confined between lat. 44. and 60. north; and between east long. from London, 126. to 150.; inhabiting, in great abundance, Bering's islands, Kamtschatka, the



SEA OTTER.

1800 Rev. London Published by G. Kearsey Print. Street.

Husk, G. del.



Aleutian and Fox islands, between Asia and America. They land also in the Kuril islands, but are never seen in the channel between the north-east of Siberia and America. It is supposed that they bring but one at a time. They are most extremely harmless animals, and are singularly affectionate to their young. They bring forth on land, and often carry the young one between their teeth; fondle them, and frequently fling them up and catch them again in their paws; and before they can swim, the parents take them in their fore feet, and swim about on their backs. The young continues with its parent till it takes a mate.

This animal is killed for its skin, which is one of the most valuable of furs, being sold at the rate of from 14 to 25 pounds sterling each. They are said to be chiefly sold to the Chinese.

The Sea Otter is sometimes taken with nets, but is more frequently destroyed with clubs and spears.

In the Philosophical Transactions for the year 1796, we meet with a description of the Sea Otter by Mr. A. Menzies, accompanied by some observations by Mr. Home. From the description there given it appears that the hind feet were completely covered with hair both above and below, except a small bare spot beneath each toe, so that in this particular the animal either varies, or the hair at some particular seasons may fall away from the webs of the feet, so as to leave the skin bare, as mentioned in Mr. Pennant's description:

the hind feet in the specimen now mentioned measured eight inches across: the tongue was four inches long, and rounded at the end, with a slight fissure, giving the tip a bifid appearance. In this respect, as well as in the structure of the hind feet, the Sea Otter makes an evident approach to the Seal.



## BRASILIAN OTTER.

*Lutra Brasiliana. L. atra, gutture flavo.*

Black Otter with yellow throat.

*Lutra nigricans, cauda depressa et plana. Barr. Fr. equin. p. 155.*

Brasilian Otter. *Pennant Quadr. 2. p. 79.*

THIS species is said to be of the size of a middling dog, and entirely of a black colour, except the head, which is brown, and the throat, which is yellow: the eyes are small and black; the whiskers large; the ears round; the feet like those of a Monkey, and with five toes, of which the interior is the shortest; the claws sharp; the tail flat and naked, and reaching no farther than the feet. It is a native of Brasil and Guiana, and about the borders of the Oronoko, and is said to live chiefly on fish and crabs. It is reckoned a good food, and without any fishy taste. In the Gmelinian edition of the *Systema Naturæ* this species is considered as a variety of the Sea Otter.

## SARICOVIENNE.

Lutra Saricovienna. *L. grisea albo maculata.*

Grey O. spotted with black.

La petite Loutre d'eau douce de Cayenne. *Buff. suppl. 3. p. 159.*  
*pl. 22.*

Saricovienne. *Pennant Quadr. 2. p. 82.*

THIS is said to be of the size of a Cat, with a fur as fine as velvet, grey, patched with black: the flesh is said to be very delicate. It is a native of South America, inhabiting rivers.

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 SLENDER OTTER.

Lutra gracilis. *L. fusca, corpore longissimo.*

Brown O. with extremely slender body.

Slender Otter. *Pennant Quadr. 2. p. 85.*

THE length of this species, from the nose to the tip of the tail, is four feet four inches; of the tail about thirteen inches; the diameter of the body, so far as could be guessed from the dried skin, scarcely more than four inches and a half; the fore legs about three inches and a half long; the hind legs four inches: the head and eyes small; the ears extremely small, so as to be scarce visible: the hind feet more strongly webbed than the fore feet: the colour of the whole animal a rich and very deep chesnut or dark brown, rather paler beneath: the cheeks and throat paler

than the other parts. This species inhabits Staten-Land.

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VISON.

Lutra Vison. *L. corpore saturate castaneo unicolore.*

Mustela Vison. *M. pedibus palmatis, corpore saturate castaneo unicolore.* *Lin. Syst. Nat. Gmel. p. 94.*

Vison. *Buff. 13. p. 304. pl. 43.*

Minx. *Lawson Car. p. 121.?*

THIS animal appears to approach so extremely near to the *L. Lutreola*, or Smaller Otter, before described, as scarce to differ in any other circumstance but that of wanting the white throat, instead of which it is entirely of a fine brown, with a cast of chesnut: the fur is very fine and glossy. It is probable also that this is the real *Minx* of the Americans, and that what has been said by Mr. Pennant relative to the Minx, under the article of the Lesser Otter, should, in reality, be applied to this variety.

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CHINCHIMEN.

Lutra Felina. *L. forma felina.*

O. with the shape and appearance of a Cat.

Chinchimen. *Molin. Chil. 265. Pennant Quadr. 2. p. 82.*

IN its general appearance this animal is said extremely to resemble a Cat, having similar head,



whiskers, ears, eyes, shape, and length of tail: the feet have five webbed toes, with strong crooked claws: the length from nose to tail is twenty inches. It is said by Molina to inhabit the sea of Chili. It swims about in pairs, and loves to bask in the sun on the tops of rocks; and, when taken, has all the fierceness of a wild Cat.

## URSUS. BEAR.

*Generic Character.*

<p><i>Dentes Primores superiores</i> sex, intus excavati, alterni.  <i>Inferiores</i> sex; laterales duo longiores, lobati; secundarii basi interiores.</p> <p><i>Laniarii solitarii.</i></p> <p><i>Molares</i> quinque seu sex, primo laniariis approximato.</p> <p><i>Lingua lævis.</i></p> <p><i>Nasus prominens.</i></p> <p><i>Membrana nictitans.</i></p>	<p><i>Front-teeth</i> six both above and below: the two lateral ones of the lower jaw longer than the rest and lobed; with smaller or secondary teeth at their internal bases.</p> <p><i>Canine-teeth</i> solitary.</p> <p><i>Grinders</i> five or six on each side; the first approximated to the canine-teeth.</p> <p><i>Tongue</i> smooth.</p> <p><i>Snout</i> prominent.</p> <p><i>Eyes</i> furnished with a <i>nictitating membrane.</i></p>
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*Ursus Arctos.* *Ursus fusco nigricans, cauda abrupta.* *Lin. Syst. Nat. Gmel. p. 100.*

Blackish-brown Bear with abrupt tail.

*Ursus.* *Gesn. Quadr. 14. Aldr. dig. 117.*

*Ours.* *Buff. 8. p. 248. pl. 31, 32.*

Brown Bear. *Pennant Quadr. 2. p. 1.*

**T**HE common Bear, with some variation as to size and colour, is a native of almost all the northern parts of Europe and Asia, and is even said to be found in some of the Indian islands, as Cey-



COMMON BEAR.



lon, &c.\* It inhabits woods and unfrequented places, and feeds chiefly on roots, fruits, and other vegetable substances, but occasionally preys on animals. In the Alpine regions the Bear is brown; in some other parts of Europe, black; and in some parts of Norway has been seen of a grey-colour, and even perfectly white: this latter change of colour sometimes takes place, as is well known, in several other animals, and most frequently in such as are naturally black or of very dark colours. The brown, the black, the grey, and the white land Bears are, therefore, to be considered as of the same species: yet it is observed that the brown and the black variety differ somewhat in their manner of life; the black confining itself almost entirely to vegetable food; the brown, on the contrary, frequently attacking and preying upon other animals, and destroying lambs, kids, and even sometimes cattle, and sucking the blood in the manner of the Cat and Weesel tribes. Linnæus adds, that the Bear has a way of blowing up his prey, and of hiding or burying a part of it. Bears are reported to be particularly fond of honey, in search of which they will climb trees, in order to get at the nests of wild bees; for the Bear, notwithstanding his awkward form, is expert in climbing, and sometimes takes up his residence in the hollow of a very large

\* The brown Bear is also said to be found in some of the northern parts of America, where it destroys cattle. The American Black Bear is a different species, and is not carnivorous.

tree. The Bear will also catch and devour fish, occasionally frequenting the banks of rivers for that purpose.

The Bear passes a considerable part of the winter in a state of repose and abstinence; emerging only at distant intervals from his den, and again concealing himself in his retreat till the approach of the vernal season. The females are said to continue in this state much longer than the males, and it is during this period that they bring forth their young, which are commonly two in number. These the ancients imagined to be nearly shapeless masses, gradually licked and fashioned into regular form by the parent; an opinion now sufficiently exploded. On this subject the learned Sir Thomas Brown has a chapter in his celebrated work, the *Pseudodoxia Epidemica*, or *Vulgar Errors*, and observes, that we have the testimony of "three authentic philosophers," in confutation of the notion, viz. first, of Matthiolus, who, in his *Comment on Dioscorides*, affirms, that, in a newly killed Bear which he saw opened, the young were distinct in all their limbs; secondly, of Julius Scaliger, who affirms the same thing of one killed by some hunters in the Alps; and, lastly, of Aldrovandus, who informs us, that in the Museum at Bologna there was, in his time, the foetus of a Bear preserved in spirits, and which was as completely formed as that of other animals. The young, however, though not shapeless, have a different aspect from the grown animal; the snout being much sharper, and their colour yellowish:

they are said to be blind for nearly the space of a month.

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AMERICAN BEAR.

*Ursus Americanus. U. niger, gula genisque ferrugineis. Lin.*

*Syst. Nat. Gmel. p. 101. Pall. spic. zool. 14. p. 6. 26.*

Black Bear, with ferruginous cheeks and throat.

Black Bear. *Pennant Quadr. 2. p. 4. Arct. zool. ed. 2. No. 19.*

THIS, which is now considered as a distinct species, and not to be confounded with the Black Bear of Europe, has a long, pointed nose, and narrow forehead: the cheeks and throat of a yellowish brown colour; the hair on the whole body and limbs of a glossy black, smoother and shorter than that of the European kind. It is also said to be, in general, smaller than the European Bear, though instances have been known in which its size, at least, equalled the European, since Mr. Bartram assures us, that a Bear was killed in Florida which weighed four hundred pounds.

This animal inhabits all the northern parts of America, migrating occasionally from the northern to the more southerly parts in quest of food, which is said to be entirely vegetable; and it is even affirmed, that, when pressed by extreme want, they will still neglect all animal food whenever they can obtain a supply of roots and grain. They, however, sometimes destroy fish, and particularly herrings, when these fish happen to come up into the creeks in shoals. They are said to

continue in their winter retreats, either in dens beneath the snow under ground, or in the hollows of old trees, for the space of five or six weeks without food.

*Var. ?*

YELLOW BEAR.

Among Mr. Catton's figures of quadrupeds a representation is given of a Yellow Bear, from the living animal then kept in the Tower. The following is the description accompanying the plate referred to:

“The Yellow Bear, from Carolina (as the American Bears in general are), is rather smaller than the European Bears; it has also a more pleasant and agreeable countenance, is perfectly tame and sociable; the colour a lively bright orange, of a reddish cast. The hair thick, long, and silky. Its other properties are the same as of the species in general.”

Mr. Pennant, in his *Arctic Zoology*, has compiled, from good authorities, a very curious and pleasing account of the ceremonials used among the North American Indians at the time of their periodical hunting of the Bear.

“The chase of these animals (says he) is a matter of the first importance, and never undertaken without abundance of ceremony. A principal warrior first gives a general invitation to all the hunters. This is followed by a most serious fast



of eight days, a total abstinence from all kinds of food\*; notwithstanding which, they pass the day in continual song. This they do to invoke the spirits of the woods to direct them to the places where there are abundance of Bears. They even cut the flesh in divers parts of their bodies, to render the spirits more propitious. They also address themselves to the manes of the beasts slain in preceding chases, as if it were to direct them in their dreams to plenty of game. One dreamer alone cannot determine the place of the chase, numbers must concur; but as they tell each other their dreams, they never fail to agree: whether that may arise from complaisance, or by a real agreement in the dreams, from their thoughts being perpetually turned on the same thing.

“ The chief of the hunt now gives a great feast, at which no one dares to appear without first bathing. At this entertainment they eat with great moderation, contrary to their usual custom. The master of the feast alone touches nothing; but is employed in relating to the guests ancient tales of the wonderful feasts in former chases: and fresh invocations to the *manes* of the deceased Bears conclude the whole. They then sally forth amidst the acclamations of the village, equipped as if for war, and painted black. Every able hunter is on a level with a great warrior; but he must have killed his dozen great beasts before his

\* We must surely suppose that they nourish themselves by some kind of drink during this period.

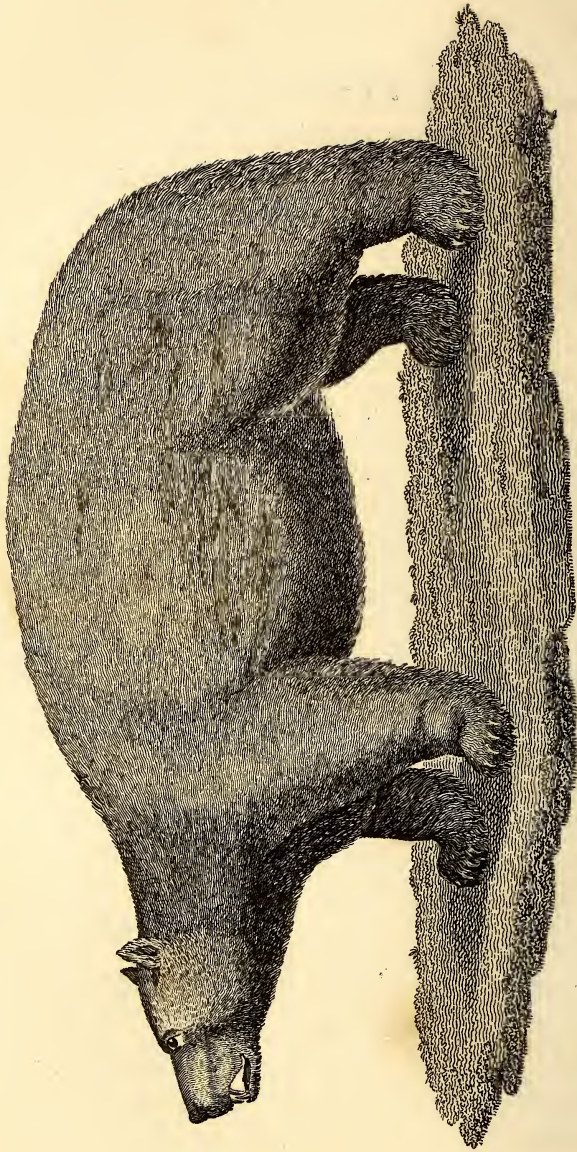
character is established; after which his alliance is as much courted as that of the most valiant captain.

“ They now proceed on their way in a direct line; neither rivers, marshes, or any other impediments, stop their course; driving before them all the beasts which they find in their way. When they arrive in the hunting-ground, they surround as large a space as their company will admit, and then contract their circle, searching, as they contract, every hollow tree, and every place fit for the retreat of the Bear, and continue the same practice till the time of the chase is expired.

“ As soon as a Bear is killed, a hunter puts into its mouth a lighted pipe of tobacco, and, blowing into it, fills the throat with the smoke, conjuring the spirit of the animal not to resent what they are going to do to its body, nor to render their future chases unsuccessful. As the beast makes no reply, they cut out the string of the tongue, and throw it into the fire: if it crackles and runs in (which it is almost sure to do), they accept it as a good omen; if not, they consider that the spirit of the beast is not appeased, and that the chase of the next year will be unfortunate.

“ The hunters live well during the chase, on provisions which they bring with them. They return home with great pride and self-sufficiency; for to kill a Bear forms the character of a complete man. They give a great entertainment, and now make a point to leave nothing. The





POLAR BEAR.

feast is dedicated to a certain genius, perhaps that of gluttony, whose resentment they dread, if they do not eat every morsel, and even sup up the very melted grease in which the meat was dressed. They sometimes eat till they burst, or bring on themselves some violent disorders. The first course is the greatest Bear they have killed, without even taking out the entrails, or taking off the skin; contenting themselves with singeing the skin, as is practised with hogs."

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POLAR BEAR:

*Ursus Maritimus.* *U. albus, cauda abrupta, capite colloque elongatis.* *Lin. Syst. Nat. Gmel. p. 101.*

White Bear, with elongated neck and head, and abrupt tail.

*Ursus maritimus albus major arcticus.* *Martens Spitsberg. 73. t. O. f. C.*

Ours blanc. *Buff. suppl. 3. p. 200. pl. 34.*

Polar Bear. *Pennant Quadr. 2. p. 5.*

*Ursus Polaris.* Polar Bear. *Museum Leverianum, vol. 1. p. 7. pl. 2.*

THIS is a far larger species than the common Bear, and is said to have been sometimes found of the length of twelve feet. The head and neck are of a more lengthened form than in the common Bear, and the body itself is longer in proportion. The whole animal is white, except the tip of the nose and the claws, which are jet black: the ears are small and rounded; the eyes small; the teeth of extraordinary magnitude: the hair is of a great length, and the limbs are extremely

large and strong. It seems confined to the very coldest parts of the globe; being found within 80 degrees of north latitude, as far as any navigators have yet penetrated. The shores of Hudson's Bay, Greenland, and Spitsbergen, are its principal places of residence; but it is said to have been accidentally carried on floating ice as far south as Newfoundland. This species seems to have been often confounded by authors with the white variety of the common Bear, which is occasionally found in the northern regions.

The first tolerable figure of the Polar Bear seems to have been published by Mr. Pennant in his *Synopsis of Quadrupeds*, and is copied in the third supplemental volume of the *Count de Buffon*. A far superior representation, however, occurs in the last voyage of Captain Cook.

The Polar Bear is an animal of tremendous strength and fierceness. Barentz, in his voyage in search of a north-east passage to China, had proofs of the ferocity of these animals, in the island of Nova Zembla, where they attacked his seamen, seizing them in their mouths; carrying them off with the utmost ease, and devouring them in the sight of their comrades. It is said that they will attack and attempt to board armed vessels, at a great distance from shore, and have sometimes been with much difficulty repelled. Their usual food consists of seals, fish, and the carcasses of whales; but, when on land, they prey on deer, and other animals, as hares, young birds, &c. they also eat various kinds of berries which

they happen to find. They are said to be frequently seen in Greenland in great droves, allured by the scent of the flesh of Seals, and will sometimes surround the habitations of the natives, and attempt to break in; and it is added, that the most successful method of repelling them is by the smell of burnt feathers. They grow extremely fat, a hundred pounds of fat having been taken from a single beast. The flesh is said to be coarse, but the skin is valued for coverings of various kinds, and the Greenlanders often wear it as a clothing. The split tendons are said to form an excellent thread. During the summer they reside chiefly on the ice-islands, and pass frequently from one to another; being extremely expert swimmers. They have been seen on these ice-islands at the distance of more than eighty miles from land, preying and feeding as they float along. They lodge in dens, formed in the vast masses of ice, which are piled in a stupendous manner, leaving great caverns beneath: here they breed, and bring one or two young at a time, and sometimes, but very rarely, three. The affection between parent and young is so great, that they will sooner die than desert each other. They follow their dams a very long time, and grow to a large size before they quit them.

During winter they retire, and bed themselves deep beneath the snow, or else beneath the fixed ice of some eminence, where they pass in a state of torpidity the long and dismal arctic night, appearing only with the return of the sun.

The skins of the Polar Bear, says Mr. Pennant, were formerly offered by the hunters in the arctic regions to the high altars of cathedrals and other churches, for the priest to stand on during the celebration of mass in winter.

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GLUTTON.

*Ursus Gulo.* *U. cauda concolore, corpore rufo-fusco, medio dorso nigro.* *Lin. Syst. Nat. Gmel. p. 104.*

Rufous-brown Bear, with tail of the same colour, and the middle of the back black.

*Gulo.* *Gesn. Quadr. p. 554. Aldr. dig. p. 178.*

*Glouton.* *Buff. suppl. 3. p. 240. pl. 48.*

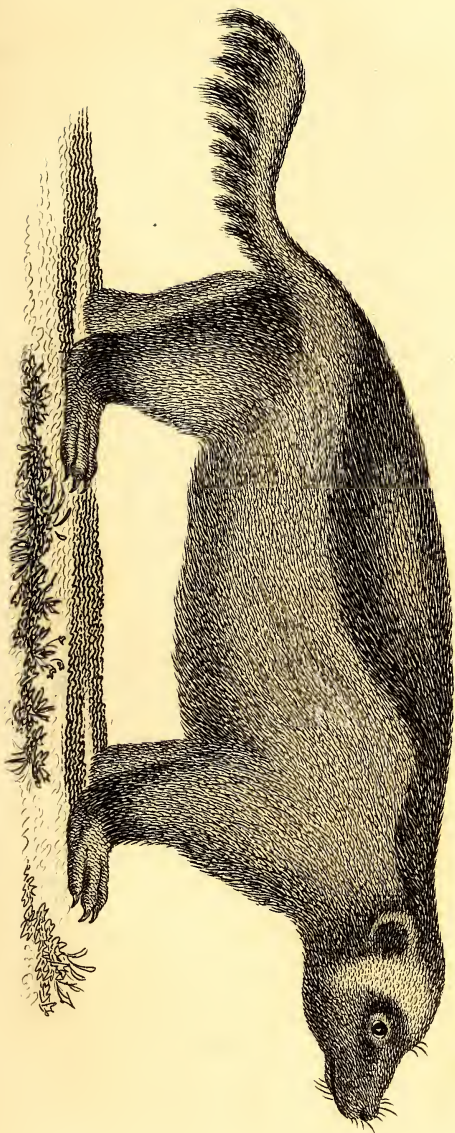
*Mustela Gulo.* *Lin. Syst. Nat. ed. 12. p. 67.*

THIS animal is a native of the most northern parts of Europe and Asia, occurring in Sweden, Norway, Lapland, and Siberia, as well as in some of the Alpine regions, and in the forests of Poland and Courland. It is also found in the northern parts of America, being not uncommon about Hudson's Bay.

The Glutton is considerably larger than a Badger, measuring about a yard from nose to tail, and the tail about a foot; but it seems to vary in size, and is often less than this. The muzzle, as far as beyond the eyes, is blackish brown, and covered with hard shining hair: over the forehead, down the sides of the head between the eyes and ears, runs a whitish or ash-coloured band or fillet: the top of the head and whole



GLUTTON.





length of the back are black-brown, the colour widening somewhat over the sides as it passes on, and again lessening or contracting towards the tail; or the description might be given in other words, by saying, that the colour of the body is a fine glossy black-brown, with a ferruginous tinge along the sides, so as to form a broad lateral zone; but it is to be observed, that the animal varies considerably in colour; sometimes appearing black, with a subferruginous lateral band; and at other times of a chesnut-colour: the feet are black. In the American variety, hereafter to be described, a whitish or ash-coloured band or border runs along the body, in the same manner as the ferruginous one in the European kind.

The Glutton, as its name imports, has the character of a very voracious animal, preying indiscriminately both on fresh prey and carrion. One which was kept at Dresden would eat thirteen pounds of flesh in a day, without being satisfied. It attacks deer, birds, field-mice, &c. and even sometimes the larger cattle; and is said to sit on the branches of trees, and suddenly to spring down on such animals as happen to pass beneath; tearing them, and sucking the blood, till they fall down through faintness, when it begins to devour the spoil. In winter it seeks out and catches ptarmigans under the snow. What it cannot devour at once it is said to hide under ground, or in the cavity of some tree. It is said to be an animal of uncommon fierceness and strength; and will sometimes dispute the prey both with the Wolf and Bear. It

is also extremely fetid. It breeds once a year, and brings from two to four young at a litter. The fur is much used for muffs, linings, &c. Those skins are said to be preferred which have least of the ferruginous tinge, and for this reason the Siberian variety, which is blacker than the rest, is most esteemed.

*Var. ?*

WOLVERENE.

*Ursus Luscus. U. corpore ferrugineo, rostro fusco, fronte plagaque laterali corporis albidis.*

Ferruginous B. with dusky snout, the forehead and lateral band of the body whitish.

*U. corpore ferrugineo, rostro fusco, fronte plagaque laterali corporis albidis. Lin. Syst. Nat. p. 71.*

The Quick-Hatch or Wolverine. *Edw. pl. 103.*

Wolverene. *Pennant Quadr. 2. p. 8.*

THIS appears to be no other than a variety of the former animal, differing in so few particulars as scarce to admit of any other elucidation than what may be caught by the eye on contemplating its figure, which is here given from Edwards, who drew it from a living specimen imported from Hudson's Bay, and presented to Sir Hans Sloane, in whose possession it continued for some years, being perfectly tame and harmless. It was about twice the size of a common Fox. Its description, as given by Edwards, is as follows:

“ All the snout, upper and under jaw, as far as the eyes, is of a black-colour: the forehead above



RACCOON.



WOLVERINE.

*Head & Tail*



becomes gradually of a whitish colour; the eyes are of a dark colour; the throat and lower side of the neck white, the first spotted with black, having some transverse bars of black on the under side of the neck: the ears are small and round, appearing but little longer than the hair that grows on the head: they are covered with short brown hair: the hind part of the head and neck, the whole body both above and beneath, the legs and tail, are all of a brown or chesnut-colour, clouded lighter and darker, viz. the upper side of the neck and beginning of the back is dusky, or very dark brown, which gradually changes to a lighter or more pleasant brown in the middle of the back: this colour again grows by degrees darker, till it becomes almost black in the hind part of the back: the tail towards the tip becomes of a dusky-colour: it hath a broad bar of very light ash-coloured brown passing round the body, beginning at each shoulder, proceeding on the sides backwards, and meeting on the rump, just above the tail, where it is broadest. The fur on the whole body is pretty long, and seems not to lie so flat to the skin as in some animals. All the feet, as far as the heel or first joint, are covered with short black hair, which gradually becomes brown above the knees: the claws are of a light horn-colour: it hath on each foot forwards four toes; the hind feet have five toes each."

It should be added, that the above specimen described by Edwards, had lost one eye; and it is

probable that Linnæus carelessly applied the trivial name *luscus* to the animal on no other consideration than the above accidental circumstance.

A specimen mentioned by Mr. Pennant, measured from nose to tail about twenty-eight inches, and the tail about seven inches; but the hair reached six inches beyond the tail itself.

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RACCOON.

*Ursus Lotor. U. cauda annulata, fascia per oculos transversali nigra. Lin. Syst. Nat. p. 103.*

B. with annulated tail, and black transverse band across the eyes.

*Ursus cauda annulatim variegata. Briss. Quadr. p. 189.*

Mapach. *Fernand. anim. 2. p. 1. Nieremb. hist. nat. p. 175.*

Le Raton. *Buff. 8. p. 337. pl. 43.*

Raccoon. *Pennant Quadr. 2. p. 12.*

The Raccoon is a native of the New World, and is principally an inhabitant of the northern parts of that continent. It is also found in some of the West-Indian islands. Its colour is grey; the face white; the eyes each imbedded in a large patch of black, which forms a kind of band across the forehead, and is crossed by a dusky stripe running down the nose. The visage is shaped like that of a Fox, the forehead being broad and the snout sharp; the eyes are large and greenish: the ears short and slightly rounded; and the upper jaw is longer than the lower: the tail, which is covered with bushy hair, tapers to the end, and

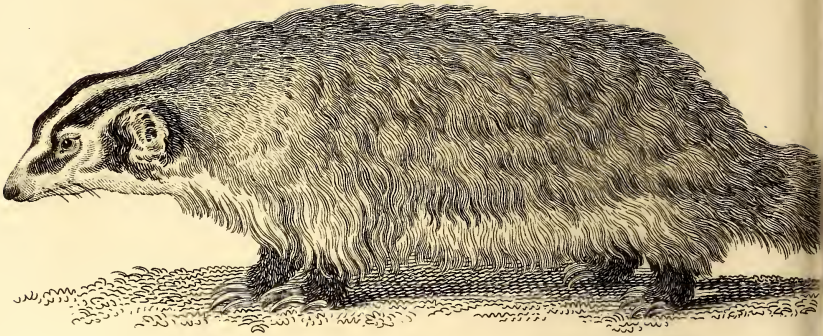


is annulated with several black bars: the body is broad, the back arched, the limbs rather short, and the fore legs shorter than the hinder; the animal is covered with thick and long hair, which has a somewhat upright growth: the feet are dusky, and have five toes with very sharp claws. The colour of the Raccoon, which is generally a dark grey, sometimes varies, and has a fulvous or tawny tinge, especially on the lower parts; and a variety entirely of a cream-colour is mentioned by Mr. Pennant. The length of the animal is two feet from nose to tail, and the tail about one foot. The food of the Raccoon, in its wild state, consists chiefly in maize, which it eats while the ears are tender, as well as sugar-canes, various sorts of fruit, as apples, chesnuts, &c. It is also supposed to devour birds and their eggs, and is, therefore, considered as an enemy to poultry. It chiefly feeds by night, and by day keeps in its hole, except in dull weather. In winter, and in very bad weather, it keeps altogether within, and is popularly believed to live like the Bear, by sucking its paws. The Raccoon, however, is an active and sprightly animal when taken into a state of domestication. It has a kind of oblique gait in walking; can leap and climb with great ease, and is very frequently seen on trees. It is easily tamed, and is frequently kept in houses by the Americans, and will live on bread, milk, fish, eggs, &c. It is particularly delighted with sweets of every kind, and has as great a dislike to acids. In eating, it commonly sits on its hind legs, and uses

its fore feet in the manner of hands. It has a way of dipping all manner of dry food that is given it into water before it eats it; as well as of rolling it between its paws for some time. When it kills birds, it proceeds exactly in the manner of a Polecat; first biting off the head, and then sucking out the blood. It drinks but little, and is a very cleanly animal. It is extremely expert in opening oysters, on which, as well as on crabs and various kinds of shell-fish, it frequently feeds in its wild state. It is, when tamed, extremely active and playful; but is of a capricious disposition, and not easily reconciled when offended. When angry, its voice is like a hoarse bark, and at other times soft and sharp. In its wild state it generally inhabits the hollows of trees; but in a domestic state shews no particular inclination for warmth; nor is it observed to be desirous of lying on straw, or any other substance, in preference to the bare ground. It sleeps from about midnight till noon, at which time it comes out for food and exercise. According to Linnæus, the Raccoon has a wonderful antipathy to hogs' bristles, and is much disturbed at the sight of a brush\*. It produces from two to three young at a birth: this commonly takes place in the month of May. The fur of the Raccoon is used by the hatters, and is

\* This particularity relative to a Raccoon kept and described by Linnæus, is, by some mistake, applied by the Count de Buffon to the Coati Mondî or Viverra Nasua; and is quoted in a note belonging to the history of that animal in his work on quadrupeds.





AMERICAN BADGER.



BADGER.

considered as next in merit for this purpose to that of the Beaver.

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BADGER.

Ursus Meles. *U. cauda concolore, corpore supra cinereo, subtus nigro, fascia longitudinali per oculos auresque nigra.* Linn. *Syst. Nat.* p. 70.

B. with unmarked tail, body grey above, black below, and a longitudinal black band through the eyes and ears.

Meles. *Gesn. Quadr.* 687.

Taxus. *Aldr. dig.* 263.

Meles pilis ex sordide albo et nigro variegatis vestita, capite tæniis alternatim albis et nigris variegata. *Briss. Quadr.* p. 183.

Blaireau. *Buff.* 7. p. 104. pl. 7.

Common Badger. *Pemant Quadr.* 2. p. 14.

THE Badger is an inhabitant of all the temperate parts of Europe and Asia. Its usual length is about two feet from the nose to the tail, which measures six inches. It is an animal of very clumsy make, being thick-necked and thick-bodied, with very short legs. It commonly resides in a hole or den under ground, out of which it emerges by night in quest of food; feeding chiefly on roots and fruits; but it will also devour frogs, worms, &c. The Badger is of an uniform grey-colour on the upper parts; and the throat, breast, belly, and legs, are black: the face is white, and along each side of the head runs a long and somewhat triangular or pyramidal band of black, including the eyes and ears: the eyes are small, and the ears short and rounded: the claws on the

fore feet are very long and strait, and it is principally from this circumstance that Mr. Pennant ranks it under a separate genus, instead of including it under that of *Ursus* or Bear. Authors have sometimes made a distinction between what they have called the Sow Badger and the Dog Badger; but this is supposed to be perfectly untenable, and if there be any perceptible variation, is probably no other than a mere sexual difference. The hair of the Badger, both on the body, limbs, and tail, is very thick; and the teeth, legs, and claws, are very strong; so that he makes a very vigorous defence when attacked. When taken young, the Badger may be easily tamed, and generally prefers raw flesh to every other food in a state of captivity. It is a very cleanly animal, and is observed to keep its subterraneous mansion extremely neat. The female produces about three or four young: this happens in summer\*; and, according to the Count de Buffon, the parent seizes on young rabbits†, which she drags out of their burrows, birds, eggs, snakes, and many other animals, in order to feed her young. Like the Bear, this animal is also fond of honey, and will attack hives in order to obtain it. The Badger sleeps a great deal, especially during winter, when he imitates the practice of

\* Mr. Schreber says in February.

† Mr. Pennant seems very much to doubt this, and can hardly admit the Badger to be a carnivorous animal.

the Bear, confining himself to his den in a state of semi-torpidity.

Ridinger figures a singular variety of the Badger, of a white colour, with brown and reddish patches.

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AMERICAN BADGER.

*Ursus ex griseo flavescens, gula pectore & abdomine albis, capite nigro lineato.*

Pale yellowish-grey B. with the throat and belly white, and the head striped with black.

*Ursus Labradorius. U. cauda apice villosa ex luteo subfusca, gula, pectore et abdomine albis, palmis tetradactylis. Lin. Syst. Nat. Gmel. p. 102.*

Carcajou. *Buff. suppl. 3. p. 242. pl. 49.*

American Badger. *Pennant Quadr. 2. p. 15.*

IN its general appearance this extremely resembles the common Badger, and might almost pass for a variety only: it is, however, somewhat smaller, and the black bands on the face are much narrower and do not include the eyes, but commence behind them, and run along the top of the neck: the ears are surrounded with black: the upper parts of the body are nearly of the same colour as in the common Badger, but rather paler, and with a slight yellowish cast; and the breast and belly are of a light ash-colour, instead of black: the legs are of a dusky brown: the claws are at least as long and strong as in the European Badger, if not more so. In the specimen described by the Count de Buffon there were

only four claws on the fore feet; but this was surmised to have been rather owing to some accidental circumstance than truly natural; though it appears to have been considered by Dr. Gmelin as forming part of the genuine specific character of the animal. This species is rather scarce in America. It is found in the neighbourhood of Hudson's Bay, and in Terra di Labrador, and, as Mr. Pennant suspects, as low as Pennsylvania, where it is called the Ground Hog.

## VAR. ?

A variety of this is found in some parts of America, with the under parts slightly tinged with yellow. It is mentioned by Brisson under the title of *Meles supra alba, infra ex albo flavicans*.

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 INDIAN BADGER.

Ursus Indicus. *U. supra albus, infra niger.*

B. white above, black beneath.

Indian Badger. *Pennant Quadr. 2. p. 16.*

MR. PENNANT is the first and only describer of this species, which was brought from India, and was in the possession of the late Mr. John Hunter. Its length from nose to tail was about two feet; of the tail four inches. It had five toes on each foot; the inner small; the claws very long and strait. The head was small; the nose pointed; there was scarce any appearance of ex-



ternal ears, only a small prominent rim round the orifice, which was oval: the colour of the nose, and face a little beyond the eyes, black: the crown, upper part of the neck, back, and upper part of the tail, white, a little inclining to greyish: the legs, thighs, breast, belly, sides, and under part of the tail, black. It fed on flesh, and was of a lively and playful disposition.

I cannot but observe, that the above species seems extremely nearly allied to one or two animals of the genus *Viverra*; resembling them in size and colour, viz. the Ratel (*Viverra Mellivora*) and the Cape Weesel (*Viverra Capensis*). It may even be doubted whether *Viverræ* just mentioned may not in reality constitute one and the same species.

## DIDELPHIS. OPOSSUM.

*Generic Character.*

<i>Dentes Primores</i> minuti, rotundati.	<i>Front-teeth</i> small, rounded.
<i>Superiores</i> decem, intermediis duobus longioribus.	<i>Superior</i> ten, the two middle ones longer.
<i>Inferiores</i> octo, intermediis duobus latioribus brevissimus.	<i>Inferior</i> eight, the two middle ones broader and very short.
<i>Laniarii</i> longi.	<i>Canine-teeth</i> long.
<i>Molares</i> denticulati.	<i>Grinders</i> denticulated.
<i>Lingua</i> papillis ciliata.	<i>Tongue</i> ciliated with papillæ.
<i>Folliculus</i> (plerisque) abdominalis mammarum.	<i>Abdominal pouch</i> (in most species) containing the teats.

THE animals of this highly singular genus first became known to naturalists on the discovery of the Western Continent, and most justly excited the admiration of the philosophic world, by the strange, and, till then, unheard-of contrivance of Nature for the protection and preservation of the young; which, instead of being exposed, like other animals, during their state of helpless imbecility to the casualties incident to that period, were securely concealed in a pouch or receptacle situated under the body of the parent.





VIRGINIAN OPOSSUM, *from the Leverian Museum*

The Opossums were long supposed to be peculiar to America; but later discoveries have evinced that several species, unknown to America, exist in other parts of the globe. It is necessary to observe, that a degree of confusion still prevails among authors, relative to the synonyms of the different species.

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VIRGINIAN OPOSSUM.

*Didelphis Virginiana. D. subcinereo-flavescens, cauda unda, auriculis rotundatis nudis nigris, margine albis.*

Yellowish-grey naked-tailed Opossum, with black, naked, rounded ears edged with white.

*D. Marsupialis?* *Lin. Syst. Nat. p. 71.*

*D. Opossum?* *Lin. Syst. Nat. Gmel. p. 105.*

Opossum. *Phil. Trans. abr. 2. p. 884. pl. 13.*

Virginian Opossum. *Museum Læverianum, vol. 1. p. 24. pl. 6.*

THIS, which seems to have been the species first discovered in America, is not much inferior in size to a Cat, but is of a thicker form, owing to the length and upright growth of the fur. The general measure seems to be about one foot four inches from the nose to the tail, which is commonly about a foot or thirteen inches long\*. It is an animal of an inelegant aspect; having a long, sharpened face, and very wide mouth,

\* Mr. Pennant, in his last edition of the History of Quadrupeds, says, about twenty inches from the tip of the nose to the base of the tail: of the tail thirteen inches.

armed with very numerous sharp teeth: the ears are thin, naked, blackish, round, and edged with a border of white: the legs are short: the feet armed with sharp claws, but the interior toes or thumbs of the hind feet are flat and rounded, and have nails like those of the Monkey tribe: the tail is blackish at its origin, and covered with longish hair, but from that part to the end is naked, and covered with a scaly skin, the divisions of which are marked in such a manner as to give the tail very much the appearance of a whitish snake: it is strongly prehensile, or possessed of the power of coiling, like those of several Monkeys, round any object from which the animal pleases to suspend itself. Its general colour is a dingy yellowish white; the legs blackish; the tail, as before observed, blackish, and furred to some little distance from the base, and from thence to the tip naked: the belly is white; and its lower part, in the female, is furnished with a large cavity or receptacle, which can be opened and closed at pleasure: in this are situated the teats; and in it the young, immediately after birth, are either placed by the parent animal, or introduce themselves; for this is one of those particulars in natural history which hitherto seems to have eluded investigation: it is, however, more than probable, that the parent herself places them there; since, even long after their residence in it, they are void of hair, and resemble fœtuses or embryos, strongly adhering to the teats. When they have attain-

ed sufficient growth and strength, they emerge, after which they occasionally take refuge in the same receptacle on the appearance of any danger, and are carried about by the parent. This is the practice with most of the Opossum tribe; but there are two species which have no ventral pouch for the reception of their young, but a kind of depression or furrow in its stead.

When imported into Europe (at least into our own island), the Opossums have never been known to breed; the late Mr. John Hunter having frequently procured several for this purpose, but could by no means succeed in his endeavours to ascertain the particulars of their history in this respect. The Kangaroo, however, which is an example of a similar contrivance of Nature, has afforded opportunities of illustrating the subject more satisfactorily.

The Virginian Opossum, like all the other American species, is a carnivorous animal, and preys on poultry, small birds, &c. in the manner of the European Polecat: it is also frugivorous, eating several kinds of roots, fruits, &c. It is of a gentle disposition, and may easily be tamed; but, like some other species, it has a disagreeable smell: its voice is a sort of grunting squeak: its pace in running is not swift, but it is very expert in climbing trees, and readily passes, by means of its clinging tail, from bough to bough, in the manner of a Monkey. The female produces four or five at a birth, and has the power of

closing the pouch so strongly as to make it extremely difficult to open it by the hand; nor will any torture compel the animal to loosen it. This power of strongly closing the pouch is performed by certain bones and muscles which Nature has provided for that purpose. These were observed and described by the celebrated Cowper, in the last century, as also by Dr. Tyson. The female, when ready to produce her young, is said to make herself a nest of dry grass, in some bush, near the root of a tree.

A variety of this species is sometimes seen, in which the back is of a deep brown. This is the *Didelphis Molucca* of Gmelin's edition of the *Systema Naturæ* of Linnæus.

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MOLUCCA OPOSSUM.

*Didelphis Marsupialis. D. fusca, cauda nuda.*

Brown O. with naked tail.

*D. mammis octo intra abdomen. Lin. Syst. Nat. Gmel. p. 105.*

*Philander Amboinensis atro-spadiceus in dorso, in ventre ex al-bido cinereo-flavicans, maculis supra oculos obscure fuscis.*

*Briss. Quadr. 201.*

*Philander Orientalis foem. Seb. mus. 1. p. 61. t. 38. f. 1.*

*Molucca Opossum. Pennant Quadr. 2. p. 20.*

*Sarigue, ou l'Opossum. Buff. 10. p. 279. pl. 45, 46.*

THIS, which is a larger species than the former, seems to have been first described and figured by Seba, in his work intituled *Thesaurus Rerum Naturalium*. It is of a thinner or more slender





MOLUCCA OPOSSUM.

*White sculp.*







GREAT ORIENTAL OPOSSUM. *from Seba.*

1600 Feet London Published by C. Kearsley Fleet Street

*Head & Tail*

habit than the Virginian Opossum, with the snout longer and the mouth wider in proportion. The Count de Buffon, however, considered it as the same species, and accuses Seba of negligence or ignorance in representing it as a native of the East Indies; contending that all the animals of this genus are natives of the New World. Subsequent discoveries, however, have amply justified Seba's account of its residence, specimens having been frequently imported from the Indian islands, &c. Its colour is a moderately deep brown, paler beneath; the ears moderately large, and somewhat longer in proportion than in the Virginian Opossum, or not of so rounded a form: the tail nearly similar to that of the Virginian: but the superior size, and thinner form both of body and limbs, together with its much darker colour, sufficiently distinguish it, even at first sight, from the former species. It is found in great plenty in Aroe and Solor, and is known in some parts of the East Indies by the name of Pelander Aroe, or the Aroe Rabbet. It also occurs in the hotter parts of South America, and particularly at Surinam. It is reckoned a delicate food, and is said to be often seen at the tables of the great in India, where it is reared with Rabbets.

## VAR.

*Philander maximus orientalis.* *Seba* 1. p. 64. t. 39.

A supposed variety of the above, but, perhaps, a distinct species, is described and figured by

Seba. It is still larger than the preceding animal, and appears to have broader ears, and a longer and more slender tail. Its colour is darker, its fur harsher or coarser, and over each eye is a dusky spot. It feeds, according to Seba, on fruits, and is a native of Amboina. The individual represented by Seba was a female.

Mr. Pennant very properly observes, that the Count de Buffon seems to have been unacquainted with the Virginian Opossum, and has figured the Indian Opossum or *D. marsupialis*, imagining it to have been the Virginian species; to which his account of its manners, and the synonyms which he has collected, refer. It may be proper to observe here that great ambiguity and confusion seems still to prevail among writers on natural history with respect to the different species of Opossums.

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MEXICAN OPOSSUM.

*Didelphis Cayopollin.* *D. cauda corpore longiore, marsupio nullo, orbitarum margine nigro.* *Lin. Syst. Nat. Gmel. p. 106.*

Brown Opossum, with tail longer than the body, and the eyes surrounded with a blackish border.

*Mus Africanus Cayopollin dictus.* *Seb. mus. 1. p. 49. t. 31. f. 3.?*  
*Cayopollin.* *Buff. 10. p. 350. pl. 55.*

Mexican Opossum. *Pennant Quadr. 2. p. 24.*

THE Cayopollin or Mexican Opossum has large angular, naked, transparent ears, thickish snout, and large whiskers. Its colour above is a brownish or tawny ash-colour, pale grey or whitish beneath: the face is also whitish, with a dark line

down the middle, and a blackish or brown border round the eyes, as in some other species: the legs are dusky, and the claws white. The measure of the animal from nose to tail is nine inches, and of the tail the same, which is spotted with brown and white, and is coated with hair to the distance of about an inch from the base, the remainder being naked. The measures of this species, as given by Mr. Schreber, are somewhat different. He says the length of the animal is somewhat more than seven inches, and of the tail more than eleven. It is a native of the mountains of Mexico, where it lives among trees.

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SHORT-TAILED OPOSSUM.

*Didelphis Brachyura.* *D. cauda pilosa et auriculis calvis brevissimis, marsupio nullo, corpore rufo.* *Lin. Syst. Nat. Gmel*  
*p. 108. Schreb. saeughth. p. 548. t. 101.*

*Mus sylvestris Americana foemina.* *Seb. mus. 1. p. 50. t. 31.*  
*f. 6.*

Short-tailed Opossum. *Pennant Quadr. 2. p. 26.*

THIS is one of the smaller species; and is said seldom to exceed the length of five inches from nose to tail; and in general to be somewhat smaller than this; and the tail scarce exceeds the length of two inches. Its colour is a reddish brown, on the upper parts, and whitish beneath; it is destitute of an abdominal pouch; the young fastening themselves to the teats. The fur of this animal is very soft and elegant; the tail is very thick

at the base, and gradually tapers to the end. It is a native of South America.

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JAVAN OPOSSUM.

*Didelphis Brunii.* *D. cauda brevi calva, pedibus posticis longioribus tridactylis.* *Lin. Syst. Nat. Gmel. p. 109.*

O. with short naked tail, and long tridactylous hind feet.

Filander. *Le Brun. voy. p. 347. f. 213.*

Javan Opossum. *Pennant Quadr. 22.*

THIS species was first discovered by Le Bruyn the traveller, who had an opportunity of contemplating it in the island of Java. The head is narrow and fox-like: the ears upright: the general colour of the animal is a pale yellowish brown, with a brown stripe up the forehead: in the upper jaw are six cutting teeth: in the lower only two, which are formed like those of a Squirrel. Le Bruyn's figure represents it sitting up in a posture similar to that of a Jerboa, or the Kangaroo; to which latter, indeed, it is allied in the remarkable particularity of the two exterior toes of the hind feet being inclosed under a common skin, as well as in its leaping pace, and the general form of the hind legs and feet; the fore feet have five toes: the abdominal pouch is large, and in it are preserved the young, which Le Bruyn observed peeping out at intervals. It is said to be about the size of a hare.



## PHALANGER.

*Didelphis Orientalis.* *D. cauda ad medium fere pilosa, corporis longitudine, folliculo abdominali, plantarum digitis duobus intermediis coadunatis.* *Lin. Syst. Nat. Gmel. p. 108.*

Ferruginous O. whitish beneath, with blackish dorsal line, tail of the length of the body, and hairy almost to the middle, and the two middle toes of the hind feet united.

Phalanger. *Buff.*

Phalanger. *Pennant Quadr. 2. p. 27.*

THE Phalanger is of the size of a very large rat, measuring about nine inches from nose to tail, and the tail measures ten inches. It is a native of the Molucca islands, and is supposed to be unknown in America, though the Count de Buffon informs us, that the specimens which he examined were transmitted to him under the name of Rats of Surinam. The colour of the Phalanger is rufous grey on the upper part, and yellowish white beneath, and along the top of the head and the back runs a blackish line: the tail is hairy for about two inches and a half from the base, and the remainder is naked. Its voice is said to resemble that of a squirrel, and it often assumes the attitude of a squirrel when feeding. The muzzle is rather thick: the ears short, and covered with hair: in the upper jaw are eight cutting-teeth, and two in the lower.

## CAYENNE OPOSSUM.

*Didelphis Cancrivora. D. cauda squamosa fere calva corpus prope æquante, plantarum ungue pollicari plano. Lin. Syst. Nat. Gmel. p. 108.*

O. with nearly naked scaly tail almost the length of the body, and the nail of the thumbs flat.

Crabier. *Buff. suppl. 3. p. 272. pl. 54.*

THIS species was first described by the Count de Buffon. It is a native of Cayenne, and is said to be a very active animal, living on trees by day, and by night descending into marshy places in order to prey on crabs, which it draws out of their holes by its feet, and sometimes by its tail. Its colour above is a reddish tawny, and below yellowish: the fur is somewhat woolly, but beset with much coarser or more bristly external hairs, especially along the back, where they almost form a kind of dusky mane: the fore feet have nails, the hind feet claws, except the thumbs or interior toes, which have nails: the face is long and slender; the ears upright, short, and pointed: the tail very long, taper, and naked. The length of that described by Buffon (which was but young) was seventeen inches, and of the tail fifteen.

## PHILANDER.

Didelphis Philander. *D. cauda basi pilosa, mammis quaternis.*

O. with the tail hairy at the base, and with four teats in the abdominal pouch.

*D. cauda basi pilosa, auriculis pendulis, mammis quaternis.* Lin.  
*Syst. Nat. Gmel. p. 72.*

Der Faras (D. Philander). *Schreb. saeughth. 1. p. 541. t. 147.*

Tlaquatzin. *Seb. mus. 1. p. 57. t. 36. f. 4.*

THE Philander is about the size of a large rat: the head is large, the snout thick, and the ears rounded and upright, though in Seba's figure, as well as in the Linnæan description, they are said to be pendulous: the abdominal pouch contains two large mammæ, each furnished with two teats. Seba, in his figure, represents these parts distinctly, but without any appearance of the pouch, and expressly affirms in the description, that this species is not furnished with one; but Mr. Schreber seems perfectly convinced that this must have been merely owing to an error or oversight in the conduct both of the figure and description, and affirms that the pouch or receptacle really exists in this species. The tail is longer than the body, and is hairy for some little distance from the base, the remainder being naked, and towards the end prehensile. The length of the body is nine inches, and of the tail thirteen. The Philander is of a reddish brown above, and whitish beneath: the eyes are surrounded with a brownish border; the mouth on each side is beset with very long vibrissæ or whiskers; down the

forehead runs a brownish stripe: the thumbs on the hind feet are rounded, as in most others of this genus.

It has ten upper fore teeth, of which the middle ones are rather longer than the rest; and eight lower fore teeth, the middle ones rather longest, and standing distant. It is a native of Surinam, and, in all probability, of several other parts of South America.

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MURINE OPOSSUM.

Didelphis Murina. *D. cauda semipilosa, mammis senis.* Lin.

*Syst. Nat. Gmel. p. 107.*

O. with tail half naked, and six teats.

Marmose. *Buff. 10. p. 335. pl. 52, 53.*

Murine Opossum. *Pennant Quadr. 2. p. 23.*

THIS is one of the smaller Opossums, measuring about six or eight inches from nose to tail, which is nearly of similar length. It is of a somewhat slender form, with a long and sharpish snout and a wide mouth: the ears are large and rounded, and the tail naked, or scaly its whole length, but coated with straggling hairs for about two inches from the base, or even much less. This species has no ventral pouch, but on each side the lower part of the abdomen is a longitudinal furrow or fold, in the cavity of which the teats are situated. The general colour of the Murine Opossum is a kind of tawny brown above, and whitish beneath: the eyes are encircled with

black: in its general mode of life it resembles others of this genus: it produces ten or more young at a birth, which immediately afterwards affix themselves to the teats, and remain there till they attain their proper growth and strength. It is a native of South America, and particularly of Surinam.

The feet in this species are all furnished with sharp claws, except on the thumbs or great toes of the hind feet, which have rounded nails. It is in this particular that it seems chiefly to differ from the following species, or Merian Opossum.

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MERIAN OPOSSUM.

*Didelphis Dorsigera.* *D. cauda basi pilosa, corpore longiore, digitis manuum muticis.* *Lin. Syst. Nat. Gmel. p. 107.*

Pouchless O. with naked tail, hairy at the base, and the fore feet without claws.

Genus *gliris sylvestris.* *Merian Surin. p. 66. t. 66.*

*Mus seu sorex sylvestris Americanus.* *Seb. 1. p. 48. t. 31. f. 1, 2.*

*Philandre de Surinam.* *Buff. 15. p. 157.*

*Merian Opossum.* *Pennant Quadr. 2. p. 27.*

THIS species is so named from the celebrated Madame Merian, who has introduced a figure of it into her splendid work on the Insects of Surinam. Madame Merian's own account of the animal is as follows: "By way of filling up a plate I have represented a kind of Wood-Rat, which always carries her young ones (of which there are commonly five or six) upon her back: she is of a

yellowish brown colour, and white beneath: when these rats come out of their hole, either to play or to seek their food, they run about with their mother, but when they are satisfied with food, or are apprehensive of danger, they climb up again on the back of the mother, and twist their tails round that of the parent, who runs with them into her hole again."

It is necessary to observe, that in Madame Merian's figure the feet are not accurately represented: this is observed by Seba, who assures us, that the toes on the fore feet are all furnished with small round nails, while those on the hind feet have sharp claws, except the thumb or interior toe, which has a rounded nail, like those on the fore feet. In colour this species seems to vary a little, being either of a deep brown above, and white beneath; or of a yellowish-brown above, and yellowish-white beneath. The eyes, as in the former species or Murine Opossum, are surrounded with a darker or blacker colour than on the rest of the animal, and indeed there seems to be some reason for supposing that this and the Murine Opossum may be one and the same species. The number of teats in the *Didelphis Murina* of Lin. is said to be only six; Mr. Pennant, on the contrary, assures us that they sometimes amount to ten or fourteen. The teats of the Merian Opossum are not particularized by its describers, but the number of young is said to be generally five or six. In the Leverian Museum is an elegant specimen of this animal.





LEMURINE OPOSSUM.



## LEMURINE OPOSSUM.

*Didelphis Lemurina. D. cinerea, subtus fulvescens, cauda tereti villosa prehensili nigra.*

Cinereous Opossum, tawny beneath, with cylindric, black, furry, prehensile tail.

Wha Tapoa Roo. *White's Journ. of a voyage to New South Wales, p. 278.*

Opossum from New South Wales. *Bewick's Hist. of Quadr. p. 376.*

New Holland Bear. *Pennant Quadr. 2. p. 13.*

THIS is a large species, being equal in size to a Cat, but longer bodied in proportion. Its colour is a fine brownish or iron-grey above, and pale yellowish-brown beneath; in some specimens nearly white: the sides of the neck and the feet have also a tinge of this colour: the fur on the whole animal is extremely thick, rich, and soft, scarce yielding in elegance to that of the *Petaurus* or Great Flying Opossum: the muzzle is short and roundish; the whiskers large and black; the ears upright, large, and a little inclining to a pointed form at the tips: the eyes bright and reddish: the hind feet furnished with a rounded interior toe: the tail, which is thick, long, and very furry, is prehensile, and is of the same colour with the body for about a fourth of its length; the remainder being black: it is naked beneath to a great distance from the tip. The general length of the body is about eighteen inches; of the tail about twelve. Living specimens of this beautiful animal have been brought into England. In their

manner of life they resemble the rest of this genus, feeding on small birds, vegetables, &c. In feeding they often sit in the manner of a squirrel, holding their food in their hands.

In Mr. White's Journal of a Voyage to New South Wales we have a description of this species by the late Mr. John Hunter, containing some remarks relative to the appearance of the teeth, which cannot fail to be interesting to every anatomist.

“ This animal (says Mr. Hunter) is about the size of a Raccoon, is of a dark grey colour on the back, becoming lighter on the sides, which terminates in a rich brown on the belly. The hair is of two kinds, a long hair, and a kind of fur, and even the long hair, at the roots, is of the fur kind.

“ The head is short; the eyes rather prominent; the ears broad, not peaked.

“ The teeth resemble those of all the animals from that country I have ever seen.

“ The incisors are not continued into the grinders by intermediate teeth, although there are two teeth in the intermediate space in the upper jaw, and one in the lower. The incisors are similar to those of the Kangaroo, and six in number in the upper jaw, opposed by two in the lower, which have an oblique surface extending some distance from their edge, so as to increase the surface of contact.

“ There are two cuspidati on each side in the upper jaw, and only one in the lower; five grinders

on each side of each jaw, the first rather pointed, the others appear nearly of the same size, and quadrangular in their shape, with a hollow running across their base from the outside to the inner, which is of some depth; and another which crosses it, but not so deep, dividing the surface into four points.

“ On the fore foot there are five toes, the inner the shortest, resembling, in a slight degree, a thumb. The hind foot resembles a hand, or that of the Monkey and Opossum, the great toe having no nail, and opposing the whole sole of the foot, which is bare. The nails on the other toes, both of the fore and hind foot, resemble, in a small degree, those of the Cat, being broad and covered: and the last bone of the toe has a projection on the under side, at the articulation. Each nail has, in some degree, a small sheath, covering its base when drawn up. The tail is long, covered with long hair, except on the under surface of that half towards the termination, of the breadth of half an inch, becoming broader near the tip or termination: this surface is covered with a strong cuticle, and is adapted for laying hold.”—*White's Journal*, p. 278.

## PORCULINE OPOSSUM.

*Didelphis Obesula. D. subferruginea, subtus albescens, cauda longiuscula, pedibus anticis pentadactylis, ungue exteriore utrinque brevissimo, posticis tetradactylis, digitis interioribus unitis.*

Subferruginous Opossum, whitish beneath, with longish tail; the fore feet pentadactylous, with very small exterior claws: the hind feet tetradactylous, with the two interior toes united. *Naturalist's Miscellany, No. 96. t. 298.*

A SPECIMEN of this is preserved in Mr. Hunter's Museum. It is about the size of a half-grown domestic rat, and is remarkable for a thicker or more corpulent habit than most others of the genus. The hind legs are considerably longer than the fore legs, and have in miniature the form of those of the Kangaroo and some other Australasian quadrupeds; though the middle claws are far less in proportion: the interior ones are double, or both covered by a common skin. The colour of this species is a pale yellow-brown, paler and inclining to whitish beneath: and its hair is of a coarser or more harsh appearance than in the rest of the small Opossums: the ears are rounded: the tail rather long. When viewed in a cursory manner, the animal bears a distant resemblance to a pig in miniature.





VIVERRINE OPOSSUM, & var.

*Irish, f. 104*

## VIVERRINE OPOSSUM.

*Didelphis Viverrina. D. nigra, albo maculata, cauda villosa.*

Var. *D. fusca, immaculata, cauda villosa.*

Black O. spotted with white, with villose tail,

The Tapoa Tafa, or Tapha. *White's Journ. p. 281, 285.*

Spotted Opossum? *Phillip's voy. to Bot. Bay, p. 147.*

THIS animal is remarkable for its slender form, and this, together with its sharpened visage and long brushy tail, gives it, at first view, the appearance of one of the Weesel tribe rather than that of an Opossum. Its general size seems to be that of a Stoat, measuring about ten inches from nose to tail; and the tail itself about eight inches. It appears, however, to vary in size, since different describers differ greatly in their accounts. In the work of Governor Phillip (published by Mr. Stockdale in the year 1789), it is said to measure about fifteen inches from the nose to the tail; the tail measuring about ten inches; but, in Mr. White's publication, the description, by Mr. Hunter, states the animal to be about the size of a rat. The different age of the specimens examined may account for these discrepancies. The colour of the whole animal is a deep glossy black, the whole body and outsides of the limbs being spotted with pretty numerous large and somewhat irregular patches of white. If, however, we admit Mr. Hunter's idea on this subject, the black and white animal just described is of the same species

with a brown one of the same size, and differing only in colour. The brown variety is that which Mr. Hunter, in the publication before referred to, has very accurately described.

“ This animal (says Mr. H.) is of the size of a rat, and has very much the appearance of the Martin Cat, but hardly so long in the body in proportion to its size.

“ The head is flat forwards, and broad from side to side, especially between the eyes and ears; the nose is peaked, and projecting beyond the teeth, which makes the upper jaw appear to be considerably longer than the lower: the eyes are pretty large; the ears broad, especially at their base, not becoming regularly narrower to a point, nor with a very smooth edge, and having a small process on the concave, or inner surface, near to the base. It has long whiskers from the sides of the cheeks, which begin forwards near the nose, by small and short hairs, and become longer and stronger as they approach the eyes. It has very much the air of a rat, to which it is similar in colour; but near to the setting on of the tail it is of a lighter brown, forming a broad ring round it. The fore feet are shorter than the hind, but much in the same proportion as those of the rat; the hind feet are more flexible. There are five toes on the fore feet, the middle the largest, falling off on each side nearly equally; but the fore or inner toe is rather shortest: they are thin from side to side, the nails are pretty broad laterally, and thin at their base; not very



long, but sharp. The animal walks on its whole palm, on which there is no hair. The hind feet are pretty long, and have five toes; that which answers to our great toe is very short, and has no nail; the next is the longest in the whole, falling gradually off to the outer toe; the shape of the hind toes is the same as in the fore feet, as are likewise the nails: it walks nearly on the whole foot. The tail is covered with long hair, but not all of the same colour.

“ The teeth of this creature are different from any other animal yet known. The mouth is full of teeth. The lower jaw narrow in comparison to the upper, more especially backwards, which allows of much broader grinders in this jaw than in the lower, and which occasions the grinders in the upper jaw to project considerably over those in the lower. In the middle the cuspidati oppose one another, the upper piercers, or holders, go behind those of the lower; the second class of incisors in the lower jaw overtop those of the upper, while the two first in the lower go within, or behind those of the upper. In the upper jaw, before the holders, there are four teeth on each side, three of which are pointed, the point standing on the inner surface; and the two in front are longer, stand more obliquely forwards, and appear to be appropriated for a particular use. The holders are a little way behind the last fore teeth, to allow those of the lower jaw to come between. They are pretty long, the cuspidati on each side

become longer and larger towards the grinders; they are points or cones placed on a broad base.

“ There are four grinders on each side, the middle two the largest, the last the least; their base is a triangle of the scalenus kind, or having one angle obtuse and two acute. Their base is composed of two surfaces, an inner and an outer, divided by processes or points: it is the inner that the grinders of the lower jaw oppose, when the mouth is regularly shut. The lower jaw has three fore teeth, or incisors, on each side; the first considerably the largest, projecting obliquely forwards; the other two of the same kind, but smaller, the last the smallest.

“ The holder in this jaw is not so large as in the upper jaw, and close to the incisors. There are three cuspidati, the middle one the largest, the last the least; these are cones standing on their base, but not on the middle, rather on the anterior side. There are four grinders, the two middle the largest, and rather quadrangular, each of which has a high point or cone on the outer edge, with a smaller, and three more diminutive on the inner edge.

“ It is impossible to say critically what the various forms of these teeth are adapted for from the general principles of teeth. In the front we have what may divide and tear off; behind those there are holders or destroyers; behind the latter such as will assist in mashing, as the grinders of the Lion, and other carnivorous animals; and,

last of all, grinders, to divide parts into smaller portions, as in the graminivorous tribe: the articulation of the jaw in some degree admits of all those motions."—*White's Journ.* p. 281.

The spotted kind, first mentioned, Mr. Hunter considers as the "same species, differing only in its external colour, and in being spotted."

In wild animals, however, of the same species, so remarkable a difference in point of colour must surely be admitted to be no very common circumstance. The general appearance in both is indeed nearly the same; yet they may still differ specifically. As this is a point, however, which nothing but accurate and repeated examination of the living animals can determine, I shall, in compliance with so great an authority, consider them at present as constituting one species.

The plate, which is accurately copied from Mr. White's publication, represents both the specimens.

## PETAURINE OPOSSUM.

*Didelphis Petaurus. D. hypochondriis prolaxis volitans, supra cinereo-nigricans ferrugineo tincta, subtus albida, cauda longa subtereti villosissima.*

Blackish-grey Opossum, tinged with ferruginous; whitish beneath; with lateral flying membrane, and long, subcylindric, very villose tail.

Hepoona Roo. *White's Journal*, p. 288.

The Southern Petaurus. *Naturalist's Miscellany*, pl. 60.

THE size, colours, and form, of the Petaurine or great flying Opossum of New Holland, conspire to render it one of the most beautiful of quadrupeds. It measures about twenty-two inches from the tip of the nose to the beginning of the tail, which is twenty inches in length. The body is about the size of a half-grown cat or a small rabbit, and the general appearance of the animal is similar to that of a flying squirrel; an expansile membrane, covered with fur, stretching from the fore legs to the hind on each side of the body, and thus enabling the animal to spring to a considerable distance at pleasure.

The general colour of this species is a very fine sable, or deep grey-brown above, varied with a cast of ferruginous: beneath it is nearly white: a stripe of darker or blacker brown than the rest runs along the back from head to tail: the fur near the edge of the flying membrane on its upper part has also a blacker or darker tinge than on the other parts, while the edge itself is white, thus forming a beautiful contrast of colour round



PE TAURINE OP OSSUM.



the whole border of the membrane: a darker or blacker shade than on the rest of the fur prevails on the upper parts of the shoulders, extending over each side of the neck. The tail is at least equal to the whole length of the head and body, and is extremely full of long, soft fur, of a blacker cast than the rest, particularly towards the end, where it is longer or more floccy than towards the base: the whole is of a roundish or subcylindric form, but from the disposition of the long fur, has a slightly flattened appearance towards the extremity. This species is most elegantly figured in Mr. White's Journal: and the representation here given is copied from the same plate, as was also the figure published some years past in the Naturalist's Miscellany, under the title of *Petaurus*; it being then supposed that this animal had no abdominal pouch; for which reason I at that time considered it as belonging to the tribe of flying squirrels, and separated them from the rest under a distinct genus of the above denomination.

The native name of this animal is *Hepoona Roo*.

## SQUIRREL OPOSSUM.

Didelphis Sciurea. *D. hypochondriis prolaxis volitans, supra cana, subtus nivea, cauda villosissima prehensili, apicem versus nigra.* Zool. of New Holland, No. 4. p. 29. t. II.

Pale-grey Opossum, snow-white beneath, with lateral flying membrane and very villose prehensile tail.

THIS is perhaps the most beautiful quadruped, if we except the Petaurus or Great Flying Opossum, of all the Australasian species yet discovered. In its general aspect it has so much the appearance of a Squirrel, that, on a cursory view, it might readily pass for such. A more exact inspection into its characters will, however, evince it to be a genuine Opossum. Its size is nearly that of a common Squirrel; but, from the fullness and particular growth of the fur, which, like that of the Lemur, grows in a suberect manner, it appears somewhat larger. Its general colour is exactly like that of the Sciurus cinereus, or American Grey Squirrel. A black stripe passes over each eye along the top of the head: under each ear is a black patch surrounded with white; the hair on the white part having a more soft or flocculent appearance than the black. The tail, which is prehensile, is of the same colour with the body for about half its length, the remainder being black. It is very full of hair, and tapers a little towards the extremity, but without any acute termination. The eyes are black, rounded, and full: the ears round, shortish, and very thin: the





LONG-TAILED  
OPOSSUM.



SQUIRREL OPOSSUM.



whole under side of the animal is milk-white: the upper parts of the feet are also white, and the edge of the lateral or flying membrane, which extends from the fore feet to the hind, is edged with a blackish border, as in the flying squirrels. The abdominal pouch is of considerable size, and is situated as in other Opossums, on the lower part of the abdomen: the hind feet are furnished with a rounded, unarmed, or mutic thumb. Nothing can exceed the softness and delicacy of this animal's fur, which is, if possible, still finer than that of the *Petaurus*, to which indeed, though very greatly inferior in size, as well as widely different in colour, it yet bears a striking affinity. It is a nocturnal animal, and continues torpid the greatest part of the day, but during the night is full of activity. In this, as well as in other Australian Opossums, the two toes on the hind feet nearest the thumb or rounded one, are connate, or both conjoined under one common skin.

Some of this species were brought over a few years since, and lived a considerable time: the beautiful representation given in the third number of the work intituled *Zoology of New Holland*, was drawn from one in the possession of T. Wilson, Esq. to whom it was presented by Mr. White, chief surgeon to the English settlement in New Holland.

Mr. Pennant, in the last edition of his *History of Quadrupeds*, appears, through some oversight, to have described it as a Squirrel, under the name of the Norfolk-Isle Squirrel. In all probability

Mr. P. had not an opportunity of contemplating the living animal, but took his description from a figure.

VAR. ?

Among some drawings in Mr. White's collection, I observed a figure which in every respect seemed to agree with the above animal, except in having the tail of the same colour with the body except near the tip, where it was marked with a bar of black, the tip itself being white. This drawing was not more than half the size of the preceding species, but as no particular size was specified, and as there was reason for supposing it to relate to the former animal, I here place it as a variety only.



LONG-TAILED OPOSSUM.

*Didelphis Macroura. D. hypochondriis prolaxis volitans, supra cinerea, subtus albida caudā longissima attenuata nigra. New Holland Zoology, No. 3. p. 33. t. 12.*

Ash-coloured Opossum, whitish beneath with lateral flying membrane, and very long black tail. *New Holl. Zool. p. 33.*

THIS species is about the size of a black rat, and is of a dark or brownish grey above, and whitish beneath: the head and neck are also whitish, but a dusky stripe runs along the top of the head almost to the nose: the ears are whitish, moderately large, and slightly rounded: the up-





PYGMY OPOSSUM. *natural size.*

per parts of the fore feet are whitish; and the lower half of the tail is of a deeper black than the beginning. In the structure of the feet it agrees with other Australian Opossums: the two interior toes of the hind feet being united under one common skin.

The dried skin of this species was sent over by Mr. White, and the specimen figured in the *Zoology of New Holland* was described from it.

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PYGMY OPOSSUM.

*Didelphis Pygmæa. D. hypochondriis prolaxis volitans, cauda plano-pinnata lineari.*

Opossum with lateral flying membrane, and flatly-pinnated linear tail. *New Holland Zoology, No. 1. p. 5.*

THIS is by far the most minute of all the Opossums, and, from its diminutive size, not exceeding that of a common mouse, has been named the Pygmy Opossum. It has been most elegantly figured in the *Zoology of New Holland*, and the representation here given exhibits the animal in a similar posture. It is furnished on each side the body with an expansile membrane, exactly in the manner of the flying squirrel; by the assistance of which it is enabled to spring to a considerable distance. The fur on the whole animal is extremely fine: the colour is a soft or palish brown above, and almost white beneath: the edges of the flying membrane are also white: the nose, feet, and ears internally, are of a light pink

or flesh-colour: the tail is of a flattened form, and is beautifully edged on each side with soft, silky hairs. The opening of the abdominal pouch in this species is of a semilunar form: on opening this receptacle in the specimen described in the New Holland Zoology, I discovered, on each side, a young one, large in proportion to the parent animal, and totally destitute of hair: they had, therefore, not approached to the period of their second birth. In such specimens as were not in a pregnant state, the mammæ or teats were extremely small, and only four in number. The tongue in this animal is remarkably large and long, and of a flattened form: the hind feet have rounded and unarmed thumbs, and the two interior toes are united under a common skin. I am inclined to think that this little species feeds on insects; and probably on young birds, eggs, &c.

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BRUSH-TAILED OPOSSUM.

*Didelphis Penicillata. D. cinerea, subtus albida, caudæ apice villosa nigra.*

Ash-coloured Opossum, whitish beneath, with the end of the tail villose and black.

THIS species is about the size of the black rat, and of an elegant appearance. The general colour is cinereous or deep grey, somewhat darker on the back: the nose is rather sharp: the ears moderately large, and of a very slightly pointed form at the tips: the sides of the mouth are furnished



with very long fine bristles or whiskers, and others somewhat shorter are situated above each eye: the feet are formed as in others of this tribe: the sides are dilated into a flying membrane; and the tail is thin and ash-coloured for nearly half its length, and from thence is jet black, with very long fine hairs, so disposed as to represent a brush or large camels' hair pencil.

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VULPINE OPOSSUM.

*Didelphis Vulpina. D. ferruginea, cauda villosa nigra.*

Ferruginous O. with black villose tail.

Vulpine Opossum. *Phillip's voy. p. 150. pl. 16.*

THIS, which is one of the larger Opossums, is said to measure twenty-six inches from the nose to the setting on of the tail, and the tail itself fifteen inches. The general colour of the animal is, on the upper parts, dusky grey, with a rufous tinge; all the under parts being of a tawny buff-colour, deepest on the throat: the tail is of the colour of the back for about a quarter of its length, and from thence to the end black: it appears from the representation in Mr. Phillip's voyage, to be well covered with fur to the very end. Upon the whole, I cannot help imagining that it is in reality no other than the species already described, under the name of the *Lemurine Opossum*.

## WHITE-TAILED OPOSSUM.

New Holland O. *Pennant Quadr.* 2. p. 25.

Opossum. *Hawskew. voy.* 3. p. 586. *Cook's last voy.* 1. p. 108.  
pl. 4.

THIS is described as about twice the size of a rat; and of a rusty brown colour above, whitish beneath: the hair soft and glossy; the tail taper, and nearly the length of the body; it is covered with brown hair to within about four inches and a half at the end, where it is white, bare, and prehensile; the ears are short and rounded, and the face rather long. This species is a native of New Holland, and is described, but not very distinctly, in the voyages above referred to.

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 URSINE OPOSSUM.

*Didelphis Ursina. D. flavescens, labio superiore bifido.*

Yellowish O. with bifid upper lip.

THE largest of all the Opossums: size of a Badger: colour pale yellow: fur longish and sub-erect: nose strongly divided by a furrow.

Native of New Holland: a species very lately discovered, and not yet fully or satisfactorily known or described.





THE KANGUROO.

## MACROPUS. KANGUROO.

*Generic Character.*

<i>Dentes Primores superiores</i> sex, emarginati.		<i>Front-teeth</i> in the upper jaw six*, emarginated.
<i>Inferiores duo, maximi, longissimi, acuminati, antrorsum porrecti.</i>		<i>In the lower jaw two, very large, long, sharp, and pointing forwards.</i>
<i>Molares utrinque quinque, remoti.</i>		<i>Grinders</i> five on each side, both in the upper and lower jaw, distant from the other teeth.
<i>Pedes antici brevissimi: postici longissimi.</i>		<i>Fore Legs</i> very short: <i>hind legs</i> very long.
<i>Folliculus abdominalis</i> fœminæ.		<i>Abdominal pouch</i> in the female.

## GREAT KANGUROO.

*Macropus Major. M. subfuscus, auriculis subacuminatis, pedibus anticis tetradactylis.*

Brownish Kangaroo, with sharpish ears and pentadactylous fore feet.

*Macropus giganteus.* Great Kangaroo. *Naturalist's Miscellany, pl. 33.*

*Didelphis gigantea. Lin. Syst. Nat. Gmel. p. 109. Schreb. t. 154. Kangaroo. Cook's voy. (Hawkesw.) 3. p. 577. pl. 20. Phillips's voy. p. 105. pl. 10. White's voy. p. 272. pl. 54.*

OF all the animals which the vast island, or, to speak more properly, continent of Australasia,

\* In the young or half-grown animal, eight.

has yet presented to our view (the Platypus alone excepted), the Kangaroo must be considered as the most extraordinary: its size, general conformation, teeth, and other particulars, conspiring to render it a most interesting object to every naturalist.

The first discovery of this remarkable quadruped, which had till then remained concealed in a distant corner of the globe, and surveyed only by the eyes of savages, was in the year 1770, when our celebrated navigator Captain Cook was stationed for a short time on that part of the coast of New Holland which is now called New South Wales.

“ On Friday, June the twenty-second (says Captain Cook), a party who were engaged in shooting pigeons for the use of the sick of the ship, saw an animal which they described to be ‘ as large as a greyhound, of a slender make, of a mouse-colour, and extremely swift.’” The following day the same kind of animal was again seen by a great many other people. On the twenty-fourth it was seen by Captain Cook himself, who, walking at a little distance from the shore, observed a quadruped, which he thought bore some resemblance to a greyhound, and was of a light mouse-colour, with a long tail, and which he should have taken for a kind of wild dog, had not its extraordinary manner of leaping, instead of running, convinced him of the contrary. Mr. Banks also obtained a transient

view of it, and immediately concluded it to be an animal perfectly new and undescribed.

On the 17th of July, this gentleman, accompanied by small party, went out at dawn of day in quest of discoveries in natural history; and, in a walk of many miles, at length saw four of these animals, two of which were chased by his greyhound, but readily outstripped their pursuer, and threw him out at a great distance, by leaping over the long grass, which prevented the dog from running to advantage\*: all that could then be distinctly observed was, that the animal in some degree resembled the Jerboa in its manner of springing forwards on the hind legs, instead of running in the manner of other quadrupeds.

The sight of a creature so extraordinary could not fail to excite, in the mind of a philosophic observer, the most ardent wishes for a complete examination. These were at length gratified; Mr. Gore, one of the associates in the expedition of Captain Cook, having been so fortunate as to shoot one in the course of a few days; and it seems to have been from this specimen that the figure given in the voyage, was drawn, which may be considered as in reality the best hitherto published, except in the article of the hind feet, which, instead of their very remarkable natural structure, are represented something like those of

\* In such parts of the country where dogs can run with ease, or without being too much impeded by the long grass and shrubs, the Kangaroo is found unequal to the chace, and has several times been caught with greyhounds.

a dog. In Mr. Schreber's work on Quadrupeds, as well as in the first edition of Mr. Pennant's History of Quadrupeds, this figure is copied with the fault just mentioned; but in Mr. Pennant's last edition it is properly corrected, and rendered a faithful representation: this figure, therefore, so far as regards the general attitude, has been selected for the present publication, accompanied by other sketches expressive of its different postures\*. It should seem that the first described specimens of the Kangaroo were males; so that one of its greatest singularities was still unobserved, viz. the large abdominal pouch or receptacle in which the young are preserved for many months after their first production; and in which this animal is allied to the *Opossums*; while, on the contrary, it differs from those animals in the teeth, and is, at the same time, allied in habit or general form to the *Jerboas*: this, indeed, is the case also with one species of Opossum, viz. the *Didelphis Brunii*, which may be, therefore, considered as forming a kind of connecting link between the Kangaroo and the Opossums.

The general size of the Kangaroo is, at least, equal to that of a full-grown sheep: the upper parts of the animal are small, while the lower are remarkably large in proportion; yet such is the elegance of gradation in this respect, that the Kangaroo may justly be considered as one of the

\* These are taken from figures in Mr. Church's most elegant publication entitled *A Cabinet of Quadrupeds*.



most picturesque of quadrupeds. The head bears some resemblance to that of a deer, and the visage is mild and placid: the ears are moderately large, of a slightly sharpened form, and upright: the eyes large, and the mouth rather small: the neck thin and finely proportioned: the fore legs extremely short, with the feet divided into five toes, each furnished with a sharp and somewhat crooked claw. From the breast downwards the body gradually enlarges, and again decreases a little towards the tail: the thighs and hind legs are extremely stout and long; and the feet are so constructed as to appear, at first sight, to consist of but three toes, of which the middle is by far the largest, and is furnished with a claw of great size and strength: the exterior toe is also furnished with a very strong claw, but far smaller than that of the middle one; and the interior consists of two small toes united under a common skin, with their respective claws placed so close to each other as to appear like a split or double claw: the whole appearance of the foot bears a distant resemblance to that of a bird. The Kangaroo rests on the whole length of the foot, which is callous, blackish, and granulated beneath. The colour of the animal is an elegant pale brown, lighter or more inclining to whiteness on the abdomen: the ventral pouch, or receptacle for the young, is situated in the same manner as in the Opossums, and is extremely large and deep.

The dimensions of a full-grown Kangaroo are given as follows, in Governor Phillip's voyage

to Botany Bay, viz. eight feet from the tip of the nose to that of the tail: length of the tail three feet one inch: of the head eleven inches: of the fore legs two feet: of the hind three feet seven inches: circumference of the fore part of the animal near the legs, three feet nine inches: of the lower part near the legs four feet five inches: round the thickest end of the tail one foot one inch. The weight of the largest specimens is said to have been about 150 pounds; but it is imagined that this animal attains a still larger size.

Though the general position of the Kangaroo, when at rest, is standing on its hind feet, as represented in the figure, yet it frequently places its fore feet on the ground also, and thus feeds in the manner of other quadrupeds. It drinks by lapping. In its natural state it is extremely timid, and springs from the sight of mankind by vast bounds of many feet in height, and to a surprising distance. When in a state of captivity it has sometimes a way of springing forwards and kicking with its hind feet in a very forcible and violent manner; during which action it rests or props itself on the base of the tail. In a natural state it sometimes uses its tail as a weapon of defence, and will give such severe blows with it to dogs as to oblige them to desist from their attack. The female Kangaroo has two mammæ or breasts situated in the abdominal pouch, and on each are seated two teats; yet, so far as has hitherto been observed, the animal produces but

one young at a birth; and so exceedingly diminutive is the young, when first found in the pouch, as scarce to exceed an inch in length. The young continues in the pouch till it is grown to a large size, and takes occasional refuge in it long after it has been accustomed to come abroad.

The Kanguroo feeds entirely on vegetable substances, and chiefly on grass. In their native state these animals are said to feed in herds of thirty or forty together; and one is generally observed to be stationed, as if apparently on the watch, at a distance from the rest.

The flesh of the Kanguroo is said to be rather coarse, and such as to be eaten rather in defect of other food than as an article of luxury.

I know not how it happens that Dr. Gmelin, in his observation on the Kanguroo (*Didelphis gigantea*. *Lin. Syst. Nat. Gmel. p. 109.*), affirms, that the teeth are those of a *Didelphis*; since they differ most widely from those of that genus, as will readily appear on collating the generic characters. It is, however, true that some of the Australasian Opossums have a greater affinity to the Kanguroo in the disposition of their teeth than to the animals of the Linnæan genus *Didelphis*, with which, for convenience, we have associated them. How Linnæus would have disposed of these anomalous species may, perhaps, be doubted; but the inquiry seems of no great importance, since they possess characters which will always sufficiently distinguish them without a particular examination of their teeth.

One of the most remarkable particularities of the Kanguroo is the extraordinary faculty which it possesses of separating at pleasure, to a considerable distance, the two long fore teeth in the lower jaw. This faculty, however, is not absolutely peculiar to the Kanguroo, but takes place in an animal of a very different and distant genus, viz. the *Mus maritimus*. (*Lin. Syst. Nat. Gmel.*)

It should seem that there are in reality either different species, or at least permanent varieties of the Kanguroo, which are hitherto not sufficiently known to be exactly described. Some of these appear to be of a darker colour than the common Kanguroo, and to have a coarser fur.

The Kanguroo may now be considered as in a great degree naturalized in England; several having been kept for some years in the royal domains at Richmond, which have, during their residence there, produced young, and seem to promise to render this most elegant animal a permanent acquisition to our country; though it must, no doubt, lose, by a degree of confinement and alteration of food, a part of its natural habits, and exhibit somewhat less of that bounding vivacity which so much distinguishes it in its native wilds of Australasia.





RAT KANGUROO.

*Taylor sculp.*

## RAT KANGUROO.

Macropus Minor. *M. fuscus, subtus cinereus, auriculis rotundatis, palmis tetradactylis.*

Brown Kangaroo, ash-coloured beneath, with rounded ears and tetradactylous fore feet.

Kangaroo Rat. *Phillip's voyage to Bot. Bay, p. 277. pl. 47.*

The Poto Roo, or Kangaroo Rat. *White's voy. to New South Wales, p. 286. pl. 60.*

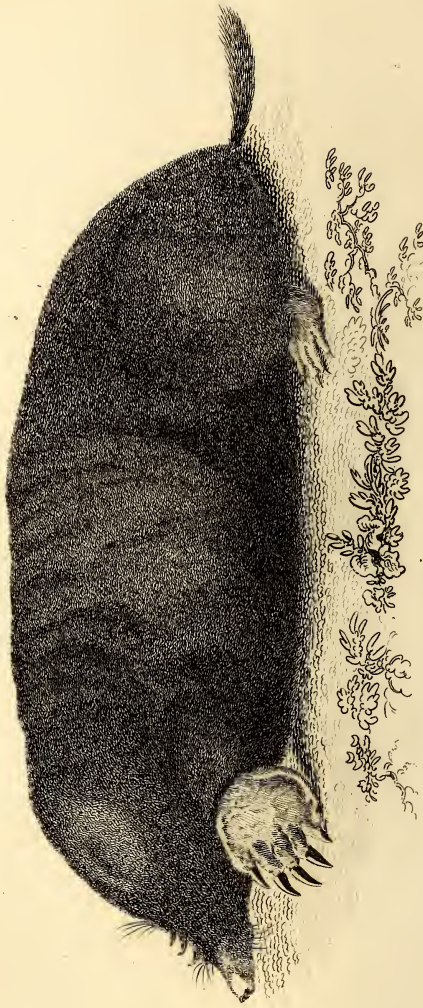
Lesser Kangaroo. *Pennant Quadr. 2. p. 32.*

THIS species, which, from its colour and the general aspect of its upper parts, has obtained the title of the Kangaroo Rat, is about the size of a rabbit: the head is rather flattened sideways, and bears some resemblance to that of a rat: the general shape of the animal resembles that of the Kangaroo, but is far less elegant, the proportions of the parts less pleasing, and the hair, which is a dusky cinereous brown, of a coarser nature. In its teeth it agrees with the great Kangaroo, except that it has eight instead of six front teeth in the upper jaw, the two middle ones being sharp-pointed: the fore teeth in the lower jaw are like those of the Kangaroo as to shape and position, but are smaller in proportion: the grinders are three in number on each side both above and below, the foremost being fluted or channelled with several longitudinal ribs; the two remaining ones plain: the ears are rather large, and on each side of the upper lip are several long vibrissæ or whiskers. The structure of the hind feet in this species perfectly resembles

that of the Kangaroo, but the fore feet have only four toes. The female is furnished with an abdominal pouch for the reception of the young. Some of this species were imported in a living state from New Holland, and brought forth young. Its native name is Poto Roo.







COMMON MOLE.

## TALPA. MOLE.

*Generic Character.*

<i>Dentes Primores</i> inæquales superiores sex.	<i>Front-teeth</i> in the upper jaw six, unequal.
Inferiores octo.	In the lower jaw eight.
<i>Laniarii</i> unici, superiores majores.	<i>Canine-teeth</i> one on each side; the upper ones largest.
<i>Molares</i> superiores septem. Inferiores sex.	<i>Grinders</i> seven in the upper jaw; six in the lower.

THE genus *Talpa* or Mole is readily distinguished by its peculiar shape, habit, or general appearance, even without an examination of the teeth; in which particular some species resemble the genus *Sorex*, and were placed in that genus by Linnæus.

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 COMMON MOLE.

*Talpa Europæa.* *T. nigra, cauda brevi, pedibus pentadactylis.*

Black Mole, with short tail and pentadactylous feet.

*Talpa caudata, pedibus pentadactylis.* *Lin. Syst. Nat. p. 73.*

*Talpa.* *Gesn. Quadr. 931. Aldr. dig. 449.*

Taupe. *Buff. 8. p. 81. pl. 12. and suppl. 3. p. 193. pl. 32.*

European Mole. *Pennant Quadr. 2. p. 229.*

THE whole form of the Mole is eminently calculated by Nature for its obscure and subterranean

ous life. The body is thick and cylindric: the snout slender, but very strong and tendinous: the head not distinguished from the body by any appearance of neck; the legs so extremely short as scarce to project perceptibly from the body; the fore feet situated obliquely outwards, excessively strong and broad, and furnished with very large and stout claws, so as to give the animal the power of working under the surface with the utmost ease and readiness: the hind feet are small in proportion to the fore feet, and are calculated for throwing back with ease the mould from behind the creature, during its subterraneous progress: the tail is short and small: the skin is much thicker and tougher in proportion than in other quadrupeds, and the fur with which it is covered equally surpasses that of other animals in fineness and softness. The muscular strength of the Mole is very great, and it is enabled to force itself into the ground with an extraordinary degree of celerity. The general length of the Mole is about five inches and three quarters, exclusive of the tail, which measures one inch. This animal is supposed to possess the power of hearing in an exquisite degree; and if at any time it emerges from its subterraneous retreat, instantly disappears on the approach of any danger. When first taken, either by digging it out or otherwise, it utters a shrill scream, and prepares for defence by exerting the strength of its claws and teeth. According to the Count de Buffon, so lively and reciprocal an attachment subsists between the male

and female, that they seem to dread or disrelish all other society. "They enjoy (says he) the placid habits of repose and solitude; the art of securing themselves from disquiet and injury; and of instantaneously forming an asylum, or habitation, of extending its dimensions, and of finding a plentiful subsistence without the necessity of going abroad. These are the manners and dispositions of the Mole; and they are unquestionably preferable to talents more brilliant, and more incompatible with happiness than the most profound obscurity."

The Mole is furnished with eyes so extremely small that it has been doubted whether they were intended by Nature for distinct vision, or rather merely for giving the creature such a degree of notice of the approach of light as might sufficiently warn it of the danger of exposure. Galen, however, seems to have been of a different opinion, since he ventures to affirm that the eyes of the Mole are furnished with the crystalline and vitreous humours, encompassed with their respective tunics; so accurate an anatomist was that great man, even unassisted by glasses. The learned Sir Thomas Brown, in his *Pseudodoxia Epidemica*, or *Vulgar Errors*, affirms that this observation of Galen "transcendeth his discovery;" for that separating these little orbs, and including them in magnifying glasses, he could discern no more than what Aristotle mentions, viz. a black humour. Mr. Derham, however, in his *Physico-Theology*, declares, that he has made "divers

accurate dissections of the eyes of Moles with the help of microscopes, having a doubt whether what we take to be eyes were such or no; and, upon strict scrutiny, could plainly distinguish the crystalline and vitreous humours, and the ligamentum ciliare, with the atramentaceous mucus:" the pupil he manifestly discerned to be round, and the cornea copped or conical: the eye is at a great distance from the brain, and the optic nerve very long and slender.

The Mole is reported to feed not only on worms, insects, &c. but also on the roots of vegetables; but it is certainly more carnivorous than frugivorous. It is even a very fierce and voracious animal in particular circumstances; and it is observed by Sir Thomas Brown, that whatever these animals be contented with under ground, yet, when above it, they will sometimes tear and eat one another; and in a large glass case, wherein a mole, a toad, and a viper were inclosed, we have known (says he) the Mole to dispatch them, and to devour a good part of them both.

The Mole is with difficulty kept alive in a state of confinement, unless constantly supplied with a provision of damp mould to reside in.

Like other animals of a black colour, the Mole is sometimes found perfectly white, or cream-coloured, and sometimes spotted. In a memoir relative to the Mole, published by M. de la Faille, it appears that four varieties may be reckoned, viz. the white Mole, the rufous or tawny Mole, the greenish-yellow or citron-coloured Mole (found

in some parts of Languedoc), and, lastly, the spotted Mole, which is variegated either with white or tawny spots or patches.

The Mole brings four or five young, for which she makes a very commodious nest, being, according to Buffon, guarded with a compages of the roots and fibres of plants, all around and above it, so as to prevent any water from penetrating; and around it, in a radiating direction, are several sloping holes, for the parent to go out at, in quest of food for herself and her offspring. These nests are to be found in the month of May, and are distinguished by a more elevated appearance above-ground than that of the hillocks formed by the usual exertions of the animal. Buffon adds, that in the nest are often found the remains of the root of colchicum or meadow-saffron, and which he, therefore, supposes to be the first food given to the young: this root is excessively acrimonious, insomuch that, when fresh, a slice held in the mouth will in a manner benumb the tongue, and render it rigid and void of sensation for some hours; and less than the quantity of a grain taken internally produces the most violent effects. This, however, forms no objection to the supposition of Buffon, since it is well known that many animals will feed with the most perfect impunity on substances which would exert the most malignant effects on the human frame, as well as on that of most other creatures.

The greatest misfortune that befalls the Mole is, the sudden overflowing of rivers, when they

are said to be seen swimming in great numbers, and using every effort to obtain a more elevated situation; but a great many of them perish on such occasions, as well as the young, which remain in their holes.

A remarkable instance of the power which the Mole sometimes exerts in swimming, is given in the third volume of the Transactions of the Linnæan Society, one having been seen swimming towards a small island in the middle of the Loch of Clunie, in Scotland, at the distance of 180 yards from land.

Linnæus, in the twelfth edition of the *Systema Naturæ*, affirms that the Mole hibernates, or passes the winter in a state of torpidity; and the same observation is repeated in the Gmelinian edition of that work. This, however, is flatly contradicted by the Count de Buffon, who observes, that the Mole sleeps so little in winter, that she raises the earth in the same manner as in summer; and that the country people remark that the thaw approaches, because the moles make their hills. They endeavour to get into warm grounds, gardens, &c. during this season more than at others.

This animal is said to be unknown in Ireland. In Siberia it arrives at a larger size than in Europe. The fur is so soft and beautiful, that it would make the most elegant articles of dress, did not the difficulty of curing and dressing the skin deter from experiments of this nature.



## PURPLE MOLE.

*Talpa Purpurascens.* *T. nigra, purpureo nitens, pedibus pentadactylis, cauda alba.*

Black Mole, with a gloss of purple; pentadactylous feet, and white tail.

*Talpa virginianus niger.* *Seb. 1. p. 51. t. 32. f. 3.*

THIS species so completely resembles the common European Mole in almost every particular, that it might pass for a variety of that animal. Its colour is black, with a strong cast of changeable purple; and the tail is white. It seems to have been first described by Seba, and is, according to that author, a native of Virginia.

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 CAPE MOLE.

*Talpa Capensis.* *T. viridi-aurea, cupreo nitens, palmis tridactylis.*

Gold-green Mole, glossed with copper-colour, with tridactylous fore feet.

*Talpa Asiatica.* *T. ecaudata, palmis tridactylis.* *Lin. Syst. Nat. p. 73.*

Siberian Mole. *Pennant Quadr. 2. p. 235.*

THIS is rather smaller than the common Mole, and of the same general form, but has a short snout, and is destitute of a tail. The fore feet are formed like those of the *red mole*, having only three claws, of which the exterior is by far the largest; the hind feet have five weak claws; but

what readily distinguishes this animal is the changeable colour of the hair, which is of a deep glossy green, with copper-coloured reflections: beneath it is of a greyish-brown. Its length is four inches. It is a native of the Cape of Good Hope, according to Mr. Pennant, and not of Siberia, as Seba, who seems to have been its first describer, supposed.

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RED MOLE.

Talpa Rufa. *T. rufa, cauda brevi, palmis tridactylis, plantis tetradactylis.*

Rufous Mole, with short tail, tridactylous fore feet, and tetradactylous hind feet.

Talpa rubra Americana. *Seb. 1. p. 51. t. 32. f. 2.*

Red Mole. *Pennant Quadr. 2. p. 233.*

THIS, in its general appearance, resembles the common Mole, but is of a pale red-brown colour, and has only three toes on the fore feet, the exterior claw being much larger than the other two: the hind feet have four claws: the proportion of the tail is the same as in the common Mole. This species, as well as the preceding, was first described by Seba, who says it is a native of America.

## LONG-TAILED MOLE.

*Talpa Longicaudata.* *T. fusca, cauda mediocri, pedibus pentadactylis, posticis squamosis.*

Brown Mole, with tail of middling length, and pentadactylous feet, the hinder ones scaly.

Long-tailed Mole. *Pennant Quadr. 2. p. 232.*

THIS is of the same general form with the common Mole, but is of a rusty brown colour; the end of the nose is radiated by a circular series of longish papillæ, and the tail is two inches long: the claws on the fore feet resemble those of the common Mole; but those of the hind feet are very long and slender: the hind feet are also scaly on their upper surface. This animal is a native of North America. Its length from nose to tail is four inches and six tenths.

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 RADIATED MOLE.

*Talpa Radiata.* *T. atra, pedibus albis, naribus carunculatis.*

Black Mole, with white feet, and nose radiated with papillæ.

Radiated Mole. *Pennant Quadr. 2. p. 232.*

*Sorex cristatus.* *Lin. Syst. Nat. p. 73.*

THIS is somewhat smaller than the common Mole, and is of a dusky or blackish colour. In general form it resembles the preceding species, having broad fore legs with long claws; the hind legs scaly and with much weaker claws: the nose long, and beset at the end with a circular series of

radiated tendrils: the length from nose to tail is three inches and three quarters. It is an inhabitant of North America, forming subterraneous passages, in different directions, in uncultivated fields, and is said to feed on roots. This species is the *Sorex cristatus* of Linnæus; being placed in that genus on account of its teeth, in despite of its appearance. It is, perhaps, in reality no other than a variety of the former species, or a sexual difference.

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BROWN MOLE.

Talpa Fusca. *T. fusca, pedibus caudaque albis, palmis latissimis.*

Brown Mole, with white feet and tail, the fore feet very broad.

Brown Mole. *Pennant Quadr. 2. p. 232.*

*Sorex aquaticus?* *Lin. Syst. Nat. p. 74.*

THIS species of Mole was also obliged to give way to the systematizing spirit of Linnæus, and to rank under the genus *Sorex*. It is about five inches and a half long, from head to tail; the tail, which is very slender, being scarce an inch in length. The nose is slender: the upper jaw much longer than the lower: in the upper jaw are two cutting-teeth, and four in the lower; the two middle ones being very small; and there are no canine-teeth: the fore feet are very broad, and the nails long: the hind feet small, with five claws on each: the hair is soft, glossy brown at the ends, and deep grey at the bottom: the tail and feet are white. It is a native of North America.

If this species be the same with the *Sorex aquaticus* of Linnæus, it has, according to that author, webbed fore feet, and, from its name, should seem to inhabit watery places; but neither of these circumstances are mentioned by Mr. Pennant.

## SOREX. SHREW.

*Generic Character.*

<i>Dentes Primores superiores</i>		<i>Front-teeth</i> in the upper jaw
duo, longi, bifidi.		two, long, bifid.
<i>Inferiores duo vel quatuor;</i>		In the lower two or four; the
<i>intermediis brevioribus.</i>		intermediate ones shorter.
<i>Laniarii utrinque plures.</i>		<i>Canine-teeth</i> several on each
		side.
<i>Molares cuspidati.</i>		<i>Grinders</i> cuspidated.

THE genus *Sorex*, in its general appearance, bears a great resemblance to the mouse tribe; but the structure, number, and situation of the teeth prove it to constitute a very different set of animals, which are evidently rather carnivorous than frugivorous. It is more closely allied to the genus *Talpa*; insomuch that these two genera may be considered as linked to each other by intermediate species, which in habit resemble the one genus, and in teeth the other. It is owing to this circumstance that Linnæus, in the twelfth edition of the *Systema Naturæ*, has placed one or two genuine species of *Talpa* in the genus *Sorex*. The most common species of *Sorex* in this country is the *S. Araneus*, commonly known by the name of the Shrew Mouse.





WATER SHREW.



COMMON SHREW.



## COMMON SHREW.

Sorex Araneus. *S. cauda mediocri, corpore subtus albido.* Lin.

*Syst. Nat. p. 74.*

Ferruginous-brown Shrew, whitish beneath, with tail rather shorter than the body.

Mus Araneus. *Gesn. Quadr. p. 747. Aldr. dig. p. 441.*

Musaraigne. *Buff. 8. p. 57. t. 10. f. 1.*

Foetid Shrew. *Pennant Quadr. 2. p. 224.*

THIS little animal, which is perhaps the smallest of the European quadrupeds, is a very common inhabitant of our fields and gardens, and measures about two inches and a half, and the tail one and a half. Its colour is nearly similar to that of a mouse, but of a somewhat more ferruginous tinge; and the animal is readily distinguished by its long and sharp snout: the eyes are small and almost hid in the fur. It feeds on roots, grain, insects, and almost any kind of neglected animal substance. It has a very strong and unpleasant smell; and it is remarkable that cats will kill but not eat it. Mr. Pennant observes that there seems to be an annual mortality among these little animals every autumn; numbers of them being found dead at that season by paths and in the fields. It inhabits most parts of Europe, and is also said to be found in Siberia and Kamtschatka. It breeds in holes, under banks, among moss, &c. and is said to produce several young at a time.

## MUSK SHREW.

*Sorex Moschatus*. *S. pedibus palmatis, cauda compressa lanceolata*. *Lin. Syst. Nat. Gmel. p. 113.*

Web-footed Shrew, with naked compressed tail.

*Castor Moschatus*. *C. cauda longa compresso-lanceolata, pedibus palmatis*. *Lin. Syst. Nat. p. 79.*

*Mus aquaticus*. *Clus exot. p. 375. Jonst. Quadr. p. 169. t. 73.*

*Mus aquatilis*. *Aldr. dig. p. 447.*

*Pallas, it. 1. p. 156. Lepechin, it. 1. p. 178. t. 13. Guldenstedt, Berl. Naturf. Besch. 3. p. 107. t. 2.*

*Desman. Buff. 10. p. 1. pl. 10.*

*Musky Shrew. Pennant Quadr. 2. p. 221.*

THIS is a very singular species, which, though extremely common in some of the northern parts of Europe and Asia, does not seem to have been very distinctly understood by modern naturalists, till Dr. Pallas, Lepechin, and Guldenstedt gave accurate descriptions of its form and manners. It was, indeed, long ago described in a general manner by Clusius, who has also given a figure, which is repeated by Aldrovandus, Jonston, and others; nor is it to be denied that both figure and description are so far just as to discriminate the animal from every other at that time known.

According to Dr. Pallas it chiefly inhabits the river *Volga* and the adjacent lakes, from *Novogorod* to *Saratof*; and is not found in *Russia*, nor does its existence in *Lapland* seem well ascertained. It is said to be very seldom seen on land; confining itself to lakes and rivers, in the banks of which it occasionally burrows to a great



MUSK SHREW.

Handy, July

1840-1841, published by George W. Peck, New York



distance. The general length of the animal is about seven inches from nose to tail, and of the tail eight inches; but it is sometimes found of a larger size. Its colour is a cinereous brown, paler beneath; the body is moderately thick, and rather of a depressed or flattened form; the head rather small; formed as in the rest of this genus, and terminating in a remarkably long and flattened snout, running far beyond the lower jaw: this part of the snout is nearly bare on the upper part, but edged along the sides with a row of vibrissæ or whiskers; and a furrow or line of division runs along its upper part: it is of a seemingly cartilaginous substance, and, in the living animal, very flexible: in the lower jaw are four *front-teeth*, and on each side six *canine*: the *grinders* are four on each side in the upper jaw, and three in the lower: the eyes are extremely small, and there are no external ears, but merely the appearance of a pair of small holes at some distance beyond the eyes: the legs are very short, with five toes on all the feet, connected by a naked web or membrane, which is much wider on the hind than on the fore feet: the feet are nearly naked, and of a brown colour: the tail, except at its base, is perfectly naked, marked out into scaly divisions, and is of a brown colour: it is also of a laterally compressed form, and gradually tapers to the extremity: near the base of the tail are situated several small follicles or glandular receptacles, in which is secreted a yellowish fluid, resembling in smell the strongest civet: of this

substance about the quantity of a scruple may, it is said, be obtained from each animal.

These creatures are said sometimes to be seen swimming about in considerable numbers on the surface of lakes and rivers, and may often be heard to snap their mouths with a sound not unlike that of a duck; feeding on worms, leeches, water insects, &c. as well as occasionally on vegetable substances.

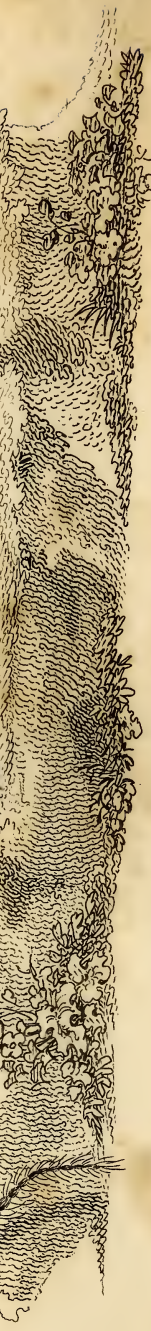
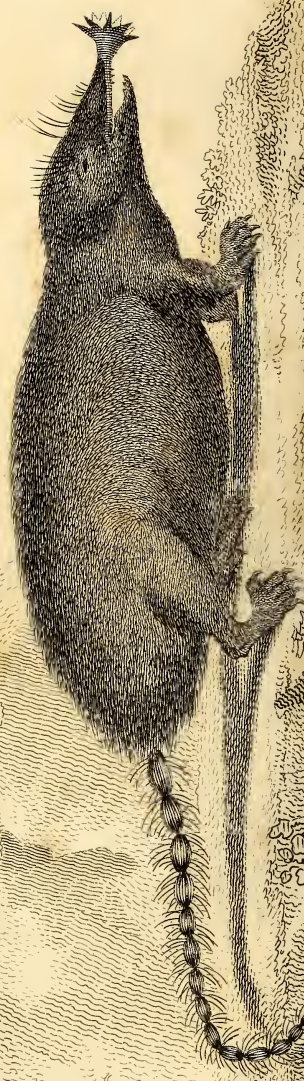
In some particulars this animal makes a distant approach to that most singular of quadrupeds, the Platypus. It may also be added, that the Platypus, if considered merely with regard to external habit, and without reference to its generic character, might, perhaps, with almost equal propriety be placed in the present order as in that of *Bruta*, did not its want of teeth lead us to place it with the rest of the edentulous or toothless quadrupeds, viz. the Ant-Eaters and the Pangolins.

The Musk Shrew is a slow-paced animal, and easily taken, if accidentally found on land. The skins are said to be sold in Russia to put into chests in order to drive away moths, and so common is the animal in the neighbourhood of Nizney Novogorod, that the peasants are said bring five hundred apiece to market, where they are sold for a ruble per hundred.

In the twelfth edition of the *Systema Naturæ* this animal is placed in the genus *Castor* or Beaver, under the title of *Castor moschatus*.



MINUTE SHREW.



RADIATED SHREW.

*Small text, possibly a signature or artist's mark.*



## CANADA SHREW.

*Sorex Radiatus. S. nigricans, rostro producto, apice tentaculis radiato.*

Blackish Shrew, with lengthened snout, radiated at the tip with tentacula.

La Taupe de Canada. *Buff. suppl. 6. p. 254. pl. 37.*  
*De la Faille mem. 1769.*

THIS animal may with great propriety be termed *Sorex radiatus*, since the snout, which is long and slender, has a dilated cartilaginous extremity, furnished with a circular series of sharp-pointed processes or soft tendrils, disposed in the manner of the rays in a spur. The whole animal is of a long form, and its habit immediately pronounces it to belong to the genus *Sorex*, and not to that of *Talpa*. It seems to have been first described and figured by Mons. de la Faille, in his Memoir on Moles. It is a native of Canada, and resembles the Mole only in some particular parts; while in others it approaches to the mouse tribe; having the same shape and agility. Its tail, which is three inches long, is knotty, and almost naked, as well as the feet, which have five toes on each, and are covered with small brown and white scales on the upper part. This animal, according to M. de la Faille (who considers it, in a general view, as a species of Mole), is more above ground, or less addicted to burrowing, than the common Mole. Its body is longish, and covered with black,

coarsish hair: the feet far less than those of a Mole: the eyes hid under the skin; the snout edged on each side with upright vibrissæ: the radiated tentacula at the end of the nose are of a bright rose-colour, and moveable at the pleasure of the animal, so as either to be brought together into a tubular form, or expanded in the form of a star.

It is said to inhabit Canada, but not to be very common there. It occasionally burrows somewhat in the manner of a Mole, but far less strongly, or more slowly, and is said to pass a considerable portion of its life beneath the surface of the snow. One would be inclined to think that the remarkable moniliform appearance of the tail in this animal, as exhibited in M. de la Faille's figure, may be partly owing to the contraction of the interstices of the joints in drying.

It is evidently allied to the radiated Mole, but if the figure given by M. de la Faille be accurate, must surely be a very distinct species.

## PERFUMING SHREW.

*Sorex Cærulescens.* *S. cinereo-cærulescens, subtus pallidior, rostro cauda pedibusque carneis.*

Blue-grey S. with flesh-coloured snout, feet, and tail.

*Sorex Pilorides.* *Museum Leverianum, vol. 1. No. 1. p. 31. t. 8.*

Perfuming Shrew. *Pennant Quadr. 2. p. 222.*

Musaraigne musquee de l'Inde. *Buff. suppl. 7. p. 281. pl. 7.*

THIS measures from nose to tail near eight inches: and the tail is about three inches and a half long: the snout is very long and slender; the upper jaw extending far beyond the lower: the upper fore teeth are short; the lower long, slender, and incurvated: the eyes small, the ears semitransparent, short and round: the fur soft and fine, and the whole animal is of an elegant blue grey colour, paler beneath: the end of the nose and the feet are naked and rose-coloured. This animal diffuses a musky smell, so extremely powerful as to penetrate almost every substance which it touches. Mr. Pennant informs us, that he has been assured, from good authority, that it has been known to make wine in a well-corked bottle undrinkable, merely by passing over it. This seems to be the same animal with that described and figured in the 7th supplemental volume of the Count de Buffon's Natural History, under the title of *Musaraigne musquéé de l'Inde*, which is said to have been brought by Mons. Sonnerat from Bengal: the tail, however, in this specimen seems shorter than in that before described, though

there can scarce remain a doubt as to the identity of the species. It inhabits fields, but is said sometimes to come into houses. It is found in the East-Indian islands, as well as in India, occurring in Java, &c. &c. and is said to feed chiefly on rice.

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WATER SHREW.

Sorex Fodiens. *S. supra niger, subtus albus.*

Black Shrew, white beneath.

*S. cauda mediocri subnuda, corpore nigricante subtus cinereo, digitis ciliatis.* *Lin. Syst. Nat. Gmel. p. 113.*

*Musaraneus dorso nigro ventreque albo.* *Merret. pin. p. 167.*

Sorex Bicolor. Water Shrew. *Naturalist's Miscellany, pl. 55.*

Water Shrew. *Pennant Quadr. 2. p. 225.*

Musaraigne d'eau. *Buff. 8. p. 64. pl. 11. fig. 1.*

THIS species is considerably larger than the common Shrew, measuring three inches and three quarters in length, from nose to tail, and the tail two inches. Its colour is black on the upper parts, and white or of a very pale ash-colour on the throat, breast, and belly: the feet are white, and beneath the tail is a triangular dusky spot: the nose is long and slender, and the ears very small. It inhabits various parts of Europe and Asia, and is chiefly found near the banks of rivers, in which it burrows, and is instantly distinguishable from the common Shrew by its colour as well as size. It is said to have a kind of chirping note, like that of a grasshopper. It breeds in spring, and produces eight or nine at

a birth. This little animal seems to have been scarce known in France till it was observed and described by Daubenton in the year 1756, but it had long before that time been known as a native of England, though considered as a rare animal. It is well figured in the Natural History of the Count de Buffon. In some parts of Germany it is said to be known by the name of Graeber, or the Digger.

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 BRASILIAN SHREW.

*Sorex Brasiliensis.* *S. fuscus, dorso striis tribus nigris.*

Brown Shrew, with three black stripes on the back.

*Sorex Brasiliensis.* *Lin. Syst. Nat. Gmel. p. 115.*

*Musaraneus figura muris.* *Marcgr. bras. p. 229.*

Brasilian Shrew. *Pennant Quadr. 2. p. 223.*

THIS, which is only known from Marcgrave's description, is said to have sharp nose and teeth, and to be about five inches long, with a tail of the length of two inches: the back is marked with three broad black streaks. It is a native of Brasil, and Marcgrave pretends that it is a bold animal, and does not fear even the cat; neither does that animal pursue it.

## SURINAM SHREW.

*Sorex Surinamensis. S. badius, subtus cinereo-flavescens, cauda corpore brevior.*

Bay Shrew, yellowish ash-coloured beneath, with tail shorter than the body.

Surinam Shrew. *Pennant Quadr. 2. p. 226.*

THIS is said to be about the size of the Water Shrew, which it much resembles, but is of a bay colour above, and of a pale yellowish ash beneath: the tail, which is about half the length of the body, is ash-coloured above and white below: the muzzle is white: the ears short and rounded, like those of the common Shrew. It is a native of Surinam.

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 ELEPHANT SHREW.

*Sorex Proboscideus. S. fuscus, naso cylindraco longissimo.*

Brown Shrew, with very long cylindric snout.

Elephant Shrew. *Pennant Quadr. 2. p. 226.*

THIS species is of a deep brown colour, and of a thickish form, with a slender tail about the length of the body, and a cylindric, long, and slender snout or upper jaw, stretching very far beyond the lower: the ears are very large and slightly pointed. It is very indifferently represented in Petiver's *Gazophylacium*, and is said to be a native of the Cape of Good Hope.

## WHITE-TOOTHED SHREW.

- Sorex Leucodon. *S. fuscus subtus albus, cauda mediocri.*  
 Dusky Shrew, white beneath, with tail of middling length.  
 Sorex Leucodon. *Schreb. suppl. t. 159. D.*  
 White-toothed Shrew. *Pennant Quadr. 2. p. 228.*

THIS seems, from Schreber's figure, to be about the size of the common Shrew, and is of a dusky or blackish brown above, and white beneath; the two colours pretty distinctly separated from each other, even along the tail itself, which is rather short: the teeth, as the name seems to import, remarkably white: this, however, appears rather too slight a foundation for a permanent trivial name.

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 SQUARE-TAILED SHREW.

- Sorex Tetragonurus. *S. cauda subquadrangula.*  
 Shrew with subquadrangular tail.  
 Sorex tetragonurus. *Schreb. suppl. t. 159. B.*  
 Square-tailed Shrew. *Pennant Quadr. 2. p. 228.*

THIS seems a rather larger species than the preceding: its colour is olive-brown above, and pale cinereous beneath: the tail but slightly hairy, and inclining to a quadrangular form. This species has no fetid smell.

## WHITISH-TAILED SHREW.

Sorex Leucurus. *S. subfuscus, subtus albidus, cauda brevi apicem versus albida.*

Brownish Shrew, whitish beneath, with short tail whitish towards the tip.

Sorex constrictus? *Schreb. suppl. t. 159. C.*

THIS appears, from Schreber's figure, to be of the size and colour of the common Shrew, and is whitish beneath: the tail is short, brown at the base, and whitish or much lighter as it proceeds to the tip.



## CINEREOUS SHREW.

Sorex Unicolor. *S. fusco cinereus, cauda basi angustata.*

Dusky-cinereous Shrew, with tail narrowed at the base.

Unicolore Shrew. *Pennant Quadr. 2. p. 228.*

THIS is of an uniform dusky-cinereous colour; with the base of the tail narrow or compressed. It inhabits, like the three preceding species, the neighbourhood of Strasburgh, where it was discovered by Professor Hermann.

This species, which is quoted by Mr. Pennant from Dr. Hermann, seems allied to the preceding.



## MURINE SHREW.

*Sorex Murinus.* *S. cauda mediocri, corpore fusco, pedibus caudaque cinereis.* *Lin. Syst. Nat. p. 74.*

Brown Shrew, with ash-coloured feet and tail, the latter of middling length.

Murine Shrew. *Pennant Quadr. 2. p. 424.*

THIS is about the size of a common Mouse, and is of a brown colour, with pale ash-coloured feet and tail, which latter is rather shorter than the body, and but slightly hairy: the ears are rounded and almost naked: the snout elongated, and channelled underneath, and is also beset with long vibrissæ. It is a native of Java.

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 PERSIAN SHREW.

*Sorex Pusillus.* *S. auriculis rotundatis, cauda brevi subdisticha.*  
*Lin. Syst. Nat. Gmel. p. 115.*

Shrew with rounded ears, and short subdistichous tail.

Persian Shrew. *Pennant Quadr. 2. p. 227.*

THIS is said to be rather larger than the Surinam Shrew, measuring about three inches and a half: it is of a dusky-grey above, and pale ash-coloured beneath: in the form of its teeth it is nearly allied to the common Shrew, and is a native of the northern parts of Persia.

## MINUTE SHREW.

*Sorex Minutus.* *S. rostro longissimo, cauda nulla.* *Lin. Syst. Nat. Gmel. p. 112.*

Tailless Shrew, with very long snout.

Minute Shrew. *Pennant Quadr. 2. p. 227.*

THIS is an extremely small animal, which inhabits moist places in Siberia, and makes its nest of lichens and mosses under the roots of trees, living on grains and seeds, &c. It is of a subferuginous brown colour above, and whitish below: the head is large; the snout very long and slender, and beset with a row of long whiskers on each side, reaching as far as the eyes. It has no tail: the eyes are small, and the ears short and naked. It is said to run swiftly, and to have a voice like that of a bat. It weighs about a dram.

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 PYGMY SHREW.

*Sorex Exilis.* *S. minimus, cauda crassissima tereti.*

Extremely small Shrew, with very thick cylindric tail.

Pygmy Shrew. *Pennant Quadr. 2. p. 227.*

THIS is the least of all quadrupeds, weighing not more than half a dram. In shape and colour it resembles the common Shrew: the nose is very long and slender, and the tail is slender at the

base, and grows very thick towards the middle, and again gradually tapers to the tip. It is a native of Siberia, and is said to be common about the neighbourhood of the rivers Jenesei and Oby.

## ERINACEUS. HEDGEHOG.

*Generic Character.*

<i>Dentes Primores superiores</i>	<i>Front-teeth</i> two both above
duo, distantes; inferiores	and below; those of the
duo, approximati.	upper jaw distant, of the
	lower approximated.
<i>Lanarii superiores utrinque</i>	<i>Canine-teeth</i> on each side, in
quinque, inferiores utrinque	the upper jaw five, in the
tres.	lower three.
<i>Molares utrinque supra et in-</i>	<i>Grinders</i> on each side both
fra quatuor.	above and below four.
<i>Dorsum spinis tectum.</i>	<i>Body</i> covered on the upper
	parts with spines.

## EUROPEAN HEDGEHOG.

*Erinaceus Europæus. E. auriculis rotundatis, naribus cristatis.*

*Lin. Syst. Nat. p. 75.*

Hedgehog with rounded ears and crested nostrils.

*Erinaceus auriculis erectis. Briss. Quadr. p. 128.*

*Echinus terrestris. Gesn. Quadr. p. 368. Aldr. dig. p. 459.*

Common Hedgehog. *Pennant Quadr. 2. p. 235.*

Herisson. *Buff. 8. p. 28. pl. 6.*

**I**F external appearance alone were regarded, the Hedgehog might be arranged in the same genus with the Porcupine, from which it chiefly appears

COMMON HEDGEHOG.



MALACCA HEDGEHOG.

1850

Dear Mother  
I received your letter  
of the 10th and was  
glad to hear from  
you. I am well and  
hope these few lines  
will find you the same.  
I have not much news  
to write at present.

I have been thinking  
of writing to you for  
some time but have  
not had time. I am  
well and hope these  
few lines will find  
you the same. I have  
not much news to  
write at present.

I am your affectionate  
son  
John

to differ in the shortness of its quills or spines. The structure of the teeth, however, shews it to belong to a different tribe. Indeed, if we thus arranged animals from external appearance alone, we might also place in the same tribe with the Hedgehog an animal entirely different in the structure of its mouth, and in no other particular allied to the Hedgehog and Porcupine, except in its quilly covering, viz. the *aculeated Ant-Eater*, already described under its proper genus.

The Hedgehog is found in most of the temperate parts of Europe and Asia, and, according to Mr. Pennant, is also seen in Madagascar. It commonly measures about eleven inches from the nose to the tip of the tail, which is about an inch long. Its colour is generally grey-brown, but it sometimes is found totally white, or of a yellowish-white; instances of which may be seen in the Leverian Museum: similar specimens are also found in the works of Seba and other authors.

It feeds principally on the roots of vegetables; but it also eats worms, as well as beetles, and other insects. It wanders about chiefly by night, and during the day conceals itself in its hole, under the roots of some tree, or mossy bank. It produces four or five young at a birth, which are soon covered with prickles like those of the parent animal, but shorter and weaker. The nest is large, and is composed of moss.

The Hedgehog, when disturbed, rolls itself up into a globular form, and thus presents to its adversary an invulnerable ball of prickles. From

this state of security it is not easily forced; scarcely any thing but cold water obliging it to unfold itself. It swims perfectly well when thrown into water.

The Hedgehog is one of those animals which, during the winter, are supposed to continue in a state of torpidity. In that season it lies concealed in its hole, surrounded with a bed of moss, secure from the rigours of the most piercing frost, and at the return of spring recommences its wanderings. It is commonly said that the Hedgehog, in order to transport apples and other fruit to its place of retirement, rolls itself upon them, and thus conveys them on its spines. Whether this be accurately true I will not take upon myself to determine: the circumstance is related by Aldrovandus, who tells us that it practises this method of transporting grapes during the vintage.

The Hedgehog may be rendered in a considerable degree domestic, and has frequently been introduced into houses for the purpose of expelling those troublesome insects the *Blattæ* or Cockroaches, which it pursues with avidity, and is fond of feeding on. It is itself an occasional article of food in some places, and is said to be best in the month of August: they are usually roasted; and Gesner advises that they be first steeped (after skinning) in warm wine and vinegar, and then larded with bacon, and stuck with cloves: but Castor Durantes seems to approve rather of their being made into a pye with plenty of spice and seasoning, in order to obviate the bad qua-



lity of the flesh, which, it seems, is cold in the first degree!!!

The Hedgehog is generally considered as a harmless inoffensive animal, but has been frequently supposed (and to this day the notion prevails in many places) to suck the teats of cows by night, and thus cause by its prickles those excruciations which are sometimes seen on cattle. From this accusation, however, it is completely absolved by Mr. Pennant, who observes, that its mouth is by far too small to admit of this practice. The Count de Buffon considers it as a creature of a malignant disposition, and observes, that one which he kept in a state of confinement in a tub, devoured its young ones, though supplied with proper food: this, however, is a phenomenon in natural history which occasionally takes place with several other animals.

The cruel practice of vivisection, so common among the more ancient anatomists, and too frequent even among modern ones, shews, in a striking manner, the patience of this creature under the most excruciating torture, since it has been known to undergo this severe operation without uttering any voice of distress.

“Clavis terebrari sibi pedes, & discindi viscera patientissime ferebat; omnes cultri ictus sine gemitu, plusquam Spartana nobilitate concoquens.”  
—*Borrchius in Blas. de Echino.*

As a curious example of the absurdities which sometimes occur in the works of the older writers, we may observe, that, according to Albertus

Magnus, the right eye of a Hedgehog, fried in oil, and kept in a brass vessel, imparts all its virtues to the oil, which, used as a collyrium or ointment for the eyes, produces such a clearness of vision as to enable a person to see as well by night as by day!!! and Pliny affirms, that its gall, mixed with the brain of a bat, is a good depilatory, or application for removing superfluous hair!

But, whatever virtues, either real or imaginary, may be supposed exist in other parts of the animal, it is certain that its skin may be successfully used as a succedaneum for a clothes-brush, and was, in fact, applied to this purpose by the ancients.

We are also informed by the Count de Buffon, that it is usual in some countries to muzzle calves, when it becomes necessary to wean them, with the skin of the Hedgehog.

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EARLESS HEDGEHOG.

*Erinaceus Inauris. E. auriculis nullis. Lin. Syst. Nat. p. 75.*

*Briss. Quadr. 184.*

Hedgehog without external ears.

*Erinaceus Americanus albus. Seb. mus. 1. p. 78. t. 49.*

Guiana Hedgehog. *Pennant Quadr. 2. p. 237.*

THIS, on a general view, seems to be nothing more than a variety of the common Hedgehog; differing chiefly, according to Seba, in having the spines on the upper parts of the body shorter,

thicker, and stronger: the head, however, is somewhat shorter and the snout blunter than in the common Hedgehog, and there is no appearance of external ears: the whole animal is also of a white or very pale colour. It is figured by Seba, who tells us he received it from Surinam. Its length from nose to tail is about eight inches; the tail scarce an inch long; the claws long and crooked.

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LONG-EARED HEDGEHOG.

*Erinaceus Auritus. E. auriculis ovalibus longis, naribus cristatis.*  
*Lin. Syst. Nat. Gmel. p. 116.*

Hedgehog with long oval ears, and crested nostrils.

THIS species resembles the common Hedgehog in form, and is found about the river *Volga*, and in the eastern parts beyond lake *Baikal*. In size it is said to vary, being in some places smaller, and in others larger than the common species, but may be immediately distinguished by its ears, which are large, oval, open, and naked, with soft whitish hair on the inside, and edged with brown: the legs and feet are longer and thinner than those of the common Hedgehog; and the tail shorter and almost naked: the upper part of the animal is covered with slender brown spines, with a whitish ring near the base, and another towards the tip: the legs and belly are covered with soft, white fur. In its general manner of life this species is said to resemble the com-

mon Hedgehog; the female produces six or seven young at a time, and is said sometimes to breed twice a-year.

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STRIPED HEDGEHOG.

*Erinaceus Madagascariensis. E. spinoso-setosus, fasciis longitudinalibus albis nigrisque, rostro longo acuto.*

Hedgehog with spines and long bristles; the body longitudinally banded with black and white; with long, sharp-pointed snout.

*E. Ecaudatus E. cauda nulla, rostro longissimo acuto. Lin. Syst. Nat. Gmel. p. 117.*

Le Tanrec & Le Tendrac. *Buff. 12. p. 438.*

Le jeune Tanrec. *Buff. suppl. 3. p. 214. pl. 37. and 7. p. 301. pl. 76.*

Le petit Tandrek de Madagascar. *Sonner. voy. 2. p. 146. pl. 93.*  
Asiatic Hedgehog. *Pennant Quadr. 2. p. 236.*

THIS animal, which is a native of Madagascar, was first described by the Count de Buffon, under the name of Le Tanrec; it should seem, however, that the specimen described had not attained its full growth, and consequently did not exhibit with sufficient clearness, all the characters of the animal. It is described and figured by Mr. Sonnerat in his voyage to Madagascar. Mr. Sonnerat calls it *Le petit Tandreck*, and says, that, at its full growth, it measures seven inches in length: it has two incisores in each jaw, and five toes, with claws, on each foot; the claws on the fore feet are much longer than those of the hind. The limbs are short, and the snout long, and terminating in a point; and it has no tail. It is of

a black colour, with five longitudinal bands on the body: all the black parts are covered with hard hair; the white bands with small prickles, analogous to those of a porcupine. From the black bands on the back spring long scattered hairs which reach to the ground: the head is covered with short black hairs or prickles: the snout is white; the eye surrounded by a white circle, and the feet are reddish. The Tandreks move slowly, and grunt like pigs; for which reason they are called Ground-Hogs, or Pig-Porcupine, by the Europeans. They burrow under ground, and remain torpid three months in the year: they hide themselves in the day-time, and only appear after sun-set, in order to seek their food: they live chiefly on fruits and herbs: their body is a mere lump of fat: the natives of Madagascar eat them, but consider them as but an indifferent food. Madagascar is the only country in which the Tandreks are found.

*Var. ?*

TANREC.

Tanrec. *Buff. 12. p. 44. pl. 56.*

THIS is larger than the former, and is covered with spines only on the top and hind parts of the head, the top and sides of the neck, and the shoulders: in that described by Buffon, the longest were on the upper part of the neck, and stood erect: the rest of the body was covered

with yellowish bristles, among which were intermixed some that were black, and much longer than the others.

Both the above animals are considered by Mr. Pennant as the same species, which he names the *Asiatic Hedgehog*. It is, according to Mr. Pennant, as large as a Rabbet when full-grown; and not only burrows on land, but frequents shallow waters. Mr. Pennant also adds, that, during the time of its lying torpid, its hair falls off. In Dr. Gmelin's edition of the *Systema Naturæ*, the Tendrac and the Tanrec are kept distinct, under the names of *Erinaceus setosus* and *E. ecaudatus*. But Mr. Pennant's idea seems most probable, viz. that both constitute but one species, and that those described by the Count de Buffon had not arrived at their full growth. It is remarkable, however, that Sonnerat, in his description of the Tendrak, says it measures but seven inches when full-grown.

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MALACCA HEDGEHOG.

*Erinaceus Malaccensis. E. auriculis pendulis. Lin. Syst. Nat. p. 75.*

Hedgehog with long spines and pendulous ears.

*Porcus aculeatus, seu Hystrix Malaccensis. Seb. I. p. 81. t. 51. f. 1.*

*Hystrix brachyura. Lin. Syst. Nat. ed. X. p. 57.*

Malacca Porcupine. *Pennant Quadr. 2. p. 123.*

THIS species, which seems to have been first described and figured by Seba, has so completely

the appearance of a Porcupine, that nothing but a severe adherence to systematic arrangement from the teeth, could justify its being placed in the present genus: yet even this particular seems not yet distinctly known, the animal being rarely imported into Europe. Mr. Pennant supposes that Linnæus might have been induced to consider it as belonging to the present genus, on account of the number of its toes, which are said to be five on the fore feet, instead of four, as in the Porcupine. The accurate Brisson, however, considered it as a species of Hedgehog, and Linnæus, in compliance with his opinion, transferred it from the genus *Hystrix* to that of *Erinaceus*. The particular size is not mentioned by Seba, but it appears to be a large species, since the length of its quills is said to be from an inch to a foot and half, on different parts of the animal. It is therefore probably about the size of the common Porcupine, and they are variegated in a similar manner: the ears are large and pendulous, and there is no crest or ruff of longer bristles than the rest on the back of the head, as in the common Porcupine.

This is said to be the animal from which is taken the particular Bezoar, called *Piedra del Porco*, the *Lapis Hystricis*, *Bezoar Hystricis* and *Lapis Porcinus*, of the old *Materia Medica*, so long and so highly extolled on account of its supposed virtues, which were such, according to some authors, as to produce the most wonderful and salutary ef-

fects in fevers and various other disorders of a malignant nature.

In order to experience the effect of this wonderful concrete, which is commonly about the size of a small walnut, round, smooth, and of a reddish brown colour, nothing more was necessary than to infuse it for some minutes in a glass of wine, water, or other liquor, which was by this method impregnated with all its virtues, and administered to the patient. The truth is, that, being a biliary concretion, found in the gall-bladder, it is intensely bitter, and being soluble in water, impregnates the fluid with its bitterness and with supposed aperient, stomachic, and alexipharmic virtues.

These concretions, which have now lost their consequence, and are regarded merely as curious specimens of the old materia medica, were once so esteemed as to have been sold, when large and perfect, for the sum of five hundred crowns.

END OF VOLUME I.

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