

## NATURALIST's POCKET

## MAGAZINE ;

OR,<br>COMPLEAT CABINET OF THE

CURIOSITIES AÑd BEAUTIES. OF

NATURE.

CONTAINING,
ELEGANT COLOURED PRINTS

BIRDS, FISHES, FLOWERS,

OF
| INSECTS, QUADRUPEDS, SHELLS,

AND OTHER NATURAL PRODUCTIONS. W1TH

DESCRIPTIONS.

## VOL. II.

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## THE

## NATURALIST’s POCKET

MAGAZINE; OR,

## COMPLEAT CABINET OF NATURE.

$\mathrm{N}^{\circ}$ XXI. CONTAINING,

1. The ANTELOPE.
2. The INDIAN BEE-EATER.
3. The Deiphobus Butterfly.

COLOURED AFTER NATURE.

DESCRIPTIONS.




## WHITE-FOOTED ANTELOPE.

'ThE name Antelope, or Gazell, is given by naturalists to a species of animals which can neither be referred to the deer nor to the goat race, though they partake of the nature of both.

In this tribe of animals there are, according to some naturalists, more than forty species; but Buffon only enumerates thirteen, and seems inclined rather to consider these as varieties than as absolutely distinct species. The distinguishing characters of the Gazell or Antelope race are, that their horns are differently constructed from those of the deer and goat families, by being annulated or ringed round, at the same time that there are longitudinal depressions running from the base to the apex ; that they have bunches of hair on their fore-legs; a black, red, or brown streak, running along the inferior parts of their sides; and three streaks of whitish hair on the internal sides of their ears. These are general characters; but there are, also, several others, which

## WHITE-FOOTED ANTELOPE.

which they commonly possess, and which are obvious to every beholder.

They resemble the goat, and differ from the deer, in never shedding their horns; in having a gall bladder; and in delighting more to browze on shrubs than crop grass: yet they are like the roe-buck in size, as well as in delicacy of conformation; have deep pits under their eves, like that animal; and resemble it in the nature and colour of their hair, as well as the bunches on their legs, which only vary by being on the fore-legs of the Antelope, and on the hind-legs of the roe-buck. Thus they appear to be of a middle nature; an intermediate link between the goat and the deer: whence it is difinult to pronounce, with any precision, whare the goat ends, or the deer commences.

Antelopes mostly inhabit the torrid regions; those parts, at least, of the tomperate zone, which are situated so near the tropics as to form a doubtiol climate. It is remarkable, however, that in no part of the new world, not even in South America, the warmth of which must necessarily be well suited to their
nature, has a single species of the Antelope ever been discovered. Their native countries seem, therefore, to be Asia and Africa.

The eyes of the Antelope, which are in general black, are so extremely brilliant, and at the same time of so mild or meek an aspect, that the oriental poets compare the eyes of their mistresses to those of this beautiful quadruped. "Aine el Czazel," or "You have the eyes of an Antelope," is considered, in the East, as the highest compliment that can be paid to a fine woman.

It is usually more delicately formed, and more finely limbed, than the roe-buck; and, though it's hair is equally short, it is finer and more glossy. It's hind-legs, like those of the hare, are longer than it's fore-legs; which not only qualify it for extraordinary swiftness, but afford it greater security than it would otherwise have, in ascending and descending precipices, a practice to which it seems peculiaily attached. It's fleetness, in fact, is equal, if not superior, to that of the roe-buck; though this animal bounds forward, while the Antelope

Antelope runs along in one uninterrupted course. It's lightness and elasticity strike the beholder with astonishment ; and, what is very singular, it will stop in the midst of it's course, for a moment gaze at it's pursuers, and then resume it's flight.

Most species of the Antelope are brown on the back, and white under the belly; haring a black stripe, which separates those colours. The tail, which is of various lengths, is always seen corcred with longish hair; and the ears, which aie beautiful in themselves, and pleasing? $y$ situated, terminate in a point. The lio of is cloven, like that of the sheep; and the homs of the female are considerably smaller than those of the male.

On comparing together the difermen spocies of the Antelope, their variations are very inconsiderable. The turn or magnitade of the horns; the different sposs in the skin; or the diversities of their size; constitute the chief marks by which the several species are distinguished: for, their mode of living, habits, and prodigious swiftness, fall under one general description.

Some species of the Antelope are said to form herds of two or three thousand, while others keep in small troops of five or six only. They frequently feed on the tender shoots of trees, which gives their flesh an excellent flavour. Those fattened for slaughter are far less delicious. The flesh of some species, indeed, is said to taste of musk; occasioned, probably, by the qualitics of the plants on which they feed.

They are taken by means of falcons trained o assist the greyhound, which would otherwise lever come up with them; by a sort of leoard, or ounce, carried on horseback by the unter ; and by sending a tame Antelope into xe herd, with ropes fastened about it's horns , as to entangle others.

The White-Footed Antelope, of which we e now more particularly to speak, measures rwards of four feet in height, to the top of the oulders, and nearly the same in length, from a bottom of the neck to the insertion of the 1. It's horns, which are short, and project a little
a little forward, are somewhat triangular towards the bottom, and blunt at the top; and they vary from most of the Antelope race, in being more distant at the bases, as well as in having no annulations. The head is like that of a stag; and the ears, which are large, are marked with two black stripes. It has a short black mane exterding half way down it's back; and a tuft of long hairs on the fore part of it's neck, above which is a large spot of white. There is also a similar spot on the chest, between the fore-legs; as well as a small white spot on each fore-foot, and two white spots on each hind-foot, which give the specific name to this animal. It's tail is rather long, and tufted with black hairs. The colour of the male is a dark grey, but that of the female is a pale brown. The fumale is destitute of homs; but has a mane, tuft, and striped ears, like the male.

These animals inhabit the interior parts of the Fast Indies; and are sometimes brough by the natives to the British settlements, wher they are purchased as great curiositics. The have, of late years, been frequently importe
into England; and, notwithstanding the prom digious difference of climate, have been known to breed and thrive surprisingly.

In the days of Aurengzebe, they abounded between Delhi and Lahor, on the way to Cachemire; and they were called Nyl-ghau, or Blue or Grey Bulls. According to Bernier, that warlike prince, when on a journey, inclosed them by his army of hunters within nets; which, being gradually drawn closer and closer, the king, with his omrahs or nobles, and other hunters, entered the circle, and dispatched them with arrows, spears, or firearms. This, indeed, is still a very common way of destroying wild beasts, in many oriental countries.

The White-Footed Antelopes, when habituated to a domestic life, are in general extremely docile, and express a peculiar affection for those who feed them; licking their hands, and expressively signifying their gratitude. They will eat oats;' but prefer grass and hay, and are particularly fond of Lread. When thirsty, they will drink two gallons at a time.
'They

They are said to be, occasionally, very vicious and fierce. When the males fight, they drop on their knees at a distance from each other; and, in this attitude, make their approaches, till they come within the compass of a single spring, when they suddenly dart forward at each other. In a state of confinement, they often fall into that posture, without any serious intention of mischief. They have, however, been known to attack mankind unprovoked. Of this Pennant gives an instance: a labourer, he says, looking over some pales which inclosed a few of these Antelopes, was alarmed by one of the males flying at him like lightning; but be was saved by the intervention of the wood-work, which the animal broke to pieces, and at the same time one of his horns.

The female is supposed to go nine months with young, and has sometimes two at a birth. The young, whether male or female, are of a fawn-colour.
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## INDIAN BEE-EATER.

'THIS beautiful bird, the Merops Viridis of Linnæus, is called by Buffon the Green BlueThroated Bee-Eater.

A little accident, Buffon remarks, which happened to a bird of this species long after it was dead, affords an instance of the mistakes which are apt to embarrass the nomenclature. The bird belonged to Mr. Dandridge, and was described, delineated, engraved, and coloured, by two English naturalists, Edwards and A1. bin: a Frenchman well skilled in ornithology, says. Buffon, and notwithstanding he had beside him a specimen, has supposed that these two figures have represented two distinct species, and has in consequence described them separately, and under different denominations:

The bird of Mr. Dandridge, observed by Edwards, was one-third smaller than the European Bee-Eater; and the two middle quills of it's tail were much longer and narrower.

## INDIAN BEE-EATER.

It is, in fact, thus described by that celebrated naturalist, whose figure we have also adopted.

The bill is pretty long, sharp-pointed, and has a downward incurvation; the upper mandible being black or dusky, and the lower whitish at the base. The beginning of the forehead, next the bill, is blue; of which colour, likewise, are the throat and sides of the head, beneath the eyes: and the crown, and hinder part of the head, as well as the hinder part of the neck, are of a red or orange-colour. On the upper part of the breast, there is a transverse mark in the form of a crescent, with the horns pointing upwards; the back, and lesser covert feathers of the wings, are of a parrot-green colour; the rump, or coverts of the tail, are of a blueish green; the breast and belly are of a light green; the thighs are of a reddish browir; and the coverts beneath the tail are of a dirty green. The greater quills of the wings are dusky at their tips, having a little green on their edges towards the base: the centre quills are of an orange colour, bordered with green, and marked with black spots a little within their tips, the extreme
treme tips being orange; the interior quills next the back are wholly green; and the first row of coverts above the quills is orange in the centre, and green on the edges. The tail is green, but the shafts of the feathers are brown; and the two centre feathers, which project more than two inches beyond the rest, are brown at their tips, and very narrow, being little more than the naked shafts. The under-side of the tail is of a dusky green. The legs are short; the three forward toes are partly connected together; and the claws are strong. The legs and feet are of a dusky brown colour.

In the subject described by Brisson, under the name of Apiaster Madagascariensis Torquatus, which is also delineated in the Planches Enluminées, there was no blue on the front, and the green on the under side of the body partook of the beryl cast; the upper side of the head, and of the neck, was of the same gold green as the back; there was, in general, a tint of gold yellow thrown loosely on the whole of the plumage, except on the quills of the wings and the superior coverts of the tail; and the black bar did not extend across the
eyes, but below them. Brisson has remarked, besides, that the wings were lined with fulvous feathers; that the shafts of the tail, which were brown above, as in Edwards's bird, were whitish beneath; and, lastly, that there were several quills and coverts of the wings, and many quills of the tail, edged near the end, as well as tipped, with yellow.

It is obvious, however, as Buffon mentions, that all these minute differences are not more than might be expected in individuals of even the same species, but only diversified by age or sex. The slight variation of size, Buffon adds, may be imputed to the same causes.
(a)


## DEIPHOBUS.

'THIS very large and fine Butterfly, though a native of China, is also well known to exist in many parts of the East Indies.

In the Linnæan-system, the Papillio, or Buttertlies, are divided into five phalanges, or genera: viz. the Equites, or those the underwings of which have each an appendage, or tail, and usually, for this reason, denominated Swallow-tails; the Heliconii, or those of which the wings are long, narrow, and even at the edges, the superior wings being large, and the inferior small; the Danaii, or those the wings of which are smooth and even at the edges, without either denticulations or tails, exactly like those of the common white Butterfly; the Nymphales, or those whose wings are denticulated, as well as occellated, or marked with eye-like spots or rings; and, lastly, the Plebeii, or common herd, comprehending all those numerous tribes of minute Butterflies, which seem to be a distinct gene-

## DEIPHOBUS.

ration, or order, from any of the other four classes just enumerated.

The Butterfly in the annexed print, which we are now particularly to describe, has received from Linnæus the name of Deiphobus; and it arranges itself, according to the system of that great naturalist, under the genus Equites: it is, consequently, regularly denominated ${ }^{-}$ the Deiphobus, Equites, of Linnæus.

For the following minute description, as well as for the original delineation, of this fine Butterfly, we are indebted to that celebrated English Aurelian, the late Mr. Moses Harris.

The antennæ, head, thorax, and abdomen, together with the superior wings, are of a fine dark brown; each wing having, however, near the shoulder ligament, two triangular spots of deep scarlet; the largest of which is nearly three-quarters of an inch long; and the smaliest, beneath it, about the size of a canary-seed. The inferior wings are of an orange brown, but very pale; and, in the centre, on each membrane, near the fan edge, is a large

## DEIPHOBUS.

large black spot: :these spots, joining together, compose a broad irregular bar extending to the abdominal part, where there are two sepa rate and distinct spots on each wing. The tails are black; and, on the fan-edge of each, there are six crescent-shaped spots of orange brown:

The expansion of the wings is six inches and a half.

The Butterfly thus described and figured, is a female. The male, which is smaller, is given by Edwards; who, Mr. Harris remarks, seems to produce it as a distinct species, though their markings are similar, and both were brought from China.

The fact seems to be, that very little is in general known respecting Butterflies, and many other objects, from distant regions, unless where skilful naturalists have not only visited but resided. The beauties, and the curiosities of nature, are often brought over to England, as well as other parts of Europe, by persons very little acquainted with the necessary en-
quiries to be made on the spot; and, not unfiequently, by such as would have insuffcient leisure for such pursuits, if they were even better informed. It is thus that we have frequently to lament a want of information respecting the habits and properties of some of the most pleasing subjects in nature.

## NATURALIST's POCKET

- MAGAZINE;

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COMPLEAT CABINET OF NATURE.

No XXII.

CONTAINING,

1. The black Leopard.
2. The SUMMER DUCK of CAROLINA.
3. The BANKSIA SERRATA.

COLOURED AFTER NATURE.<br>W1TM<br>DESCRIPTIONS.

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## BLACK LEOPARD.

THE Black Leopard is an animal which appears to be very little known by naturalists; and was, perhaps, never seen in Europe, till the subject from which our print is copied was brought over to England, from Bengal, by Warren Hastings, Esq. as a present to his Majesty.

Naturalists, indeed, seem not a little at a loss to distinguish between Leopards, strictly so called, and several other animals.

The Panther, the Ounce, and the Leopard, Buffon remarks, which are all animals of Asia and Africa, have not only been mistaken by naturalists for each other, but have been confounded with certain animals of the same kind found in America.

The Large Panther, which Buffon calls simply the Panther, is the animal, he asserts, which the Greeks distinguished by the name of Pardalis; the ancient Latins, first by that

## BLACK IEOPARD.

of Panthera, and afterwards by that of Pardus; and the modern Latins by the name of Leopardus. The body of this animal is five or six feet long, and the tail about two. It's skin, which is of a yellow hue, but whitish under the belly, is marked with black spots, either annular or in the form of beads. The generality of these rings have one or more central spots: some of them are oral, and others circular ; and they are frequently above three inches in diameter.

The Little Panther of Oppian, the ancients have not distinguished by any particular name: but our modern travellers have called it the Ounce, Once, or Onza ; corruptelly, Euffon says, from the name Lynx, or Luns. To this animal he preserves the denomination of the Ounce, from it's affinity to the Lrma, and describes it as much smaller than the Panther. It's body is oult about three feet and a half in length; hut it's tail frequently measures three feet. It's hair, too, is longer than that of the Panther; and it is of a whitish grey on the back and sides, and of a grey still more white under the bells. The spots, however, are nearly

## BLACK LEOPPARD.

nearly of the same form and size as those of the Panther.

The animal to which Buffon confines the name of Leopard, he says, is unnoticed by the ancients; being a native of Senegal, Guinea, and other southern countries, which they had not discovered. It is larger than the Ounce, but considerably smaller than the Panther, being only about four feet in length, and the tail two, or two and a half. The hair on the back and sides is of a yellow colour, more or less deep; under the belly it is whitish; and the spots, which are all annular, are smaller and less regularly disposed than those of either the Panther or the Ounce. The species of the Leopard is subject to more varieties than that of the Panther; and the Leopard skins differ much from each other, as well in the general colour of the hair as in that of the spots.

The Panther, the Ounce, and the Leopard, are found only in Africa, and in the hottest climates of Asia: they have never been diffused over the cold, nor even over the tempe-
rate, regions of the north. They could never, therefore, Buffon adds, have found a passage to the New World by any northern land; and the American animals of this kind, he says, ought not to be confounded with those of Africa and Asia, as has been erroneously done by the generality of nomenclators.

Leopards, in general, delight in thick forests, and often frequent the borders of rivers, and the environs of solitary habitations ; where animals, either wild or tame, are their prey. They easily climb trees, in pursuit of wild cats or other animals; but they seldom attack mankind.

Notwithstanding what Buffon has remarked, by way of censure, on those who class together the Panther, the Ounce, or the Leopard, with similar animals of the New World, we strongly inclire to consider, as the same species, our Black Leopard, brought from Bengal, and deposited in the Tower of London; and the animal which Buffon bas described under the oaine of the Jaguarette, a very rare animal,

## BLACK LEOPARD.

animal, but sometimes found in different parts of South America.

Our Black Leopard, from the East Indies, which is the figure annexed, we have reason to think, is there very uncommon. It is of a dusky black, sprinkled with spots of a glossy black, disposed in the same form as those of the common Leopard; but, what is very remarkable, the hair, on being turned aside, appears beneath of a yellowish tinge.

In Buffon's account of the Jaguarette, it is described as having black hair, variegated with spots of a still deeper black. It is thought, by most naturalists, to be a black variety of the Jaguar, which is in almost every respect like the Leopard; being of a bright yellow colour, about the size of Buffon's Ounce, but spotted more like the Leopard.

To us it appears, that these animals are, in fact, Leopards, or animals with simple circular spots, of the New World, as America is generally called by naturalists; and that the Jaguarette, and Black Leopard, both scarce animals,
animals, are merely the negroes of the Leopard race.

In short, simple spots, circular, or nearly circular, seem to be characteristics of the Leopard; and rings, or oval spots, with round spots in their centres, distinguish Panthers either large or small ; just as the Tiger, and it's affinities, some of which have also been confounded with the Leopard, are marked with oblong streaks, or stripes, and not with spots.



STTTMER DICK DY CAROLINA.


## SUMMER DUCK OF CAROLINA.

'THIS beautiful Duck, called by Edwards the Summer Duck of Carolina, is the Anas Sponsa of Linnæus. By Brisson, it is named Anas府stiva, or the Summer Duck; by Buffon, the Beautiful Crested Duck ; by Brown, the American Wood Duck; and, by Catesby, Pennant, and Latham, the Summer Duck. Fernandez also describes it under the native American name of the Yetactzonyayauhqui. Edwards, whom we have followed, calls it the Summer Duck of Carolina.

The rich plumage of this beautiful Duck has the appearance of being a studied attire, or gala dress, to which it's elegant crested head adds peculiar grace and listre. It is for this reason that Linnæus has given it the epithet of Sponsa, or the Bride.

It's specific charafer is, that it's crest is pendant, and double ; and it is variegated with green, with blue, and with white.

The

## SUMMER DUCK OF CAROLINA.

The bill of this bird, as desćribed by Edwards, is red in the middle, and there is a black spot at the extremity. The irides are yellow, with a purple circle; and, on cach side of the head, there are two long feathers, apparently divided into hairs of a blueish green colour, with a purplish cast, and a narrow white border. The feathers on the head are of a violet hue; from each side of the throat, which is white, run several bow-like streaks; and the breast is red spotted with white. Near the small coverts of the wings, there are broad black streaks, which run across the back; but the upper parts of the wings display a diversity of colours. The tail is blue and purple; and the feet, which are brown, have a reddish cast on their fore-parts.

Buffon gives the following; but neither words, nor even the pencil, can describe such varicgated plumage with absolute precision.

A piece of beautiful rufous, says Buffon, specked with little white dashes, covers the breast, as well as the back of the neck, and is neatly intersected on the shouiders by a otreak

## SUMMER DUCK OF CAROLINA.

of white, accompanied by a streak of black. The wing is covered with feathers of a brown that melts into black, with rich reflections of burnished steel ; and those of the flanks, which are very delicately fringed and vermiculated with little blackish lines on a grey ground, are prettily striped at the tips with black and white, the streaks being displayed alternately, and seeming to vary according to the motion of the bird. The under-side of the body is pearly white-grey; and a small white collar rises into a chin-piece below the bill, and sends off a scallop below the eye, on which another long streak of the same colour passes like a long eye-lid. The upper side of the head is decorated with a superb tuft of long, white, green, and violet feathers, which fall back like hair, in bunches parted by smaller white bunches. The front and the cheeks dazzle with the lustre of bronze. The iris is red; and the bill is the same, with a black spot above: the horny tip of the bill is also black, and the base is hemmed with a fleshy brim of yellow.

Besides the names already enumerated, as

## SUMMER DUCK OF CAROLINA.

having been given by travellers and naturalists to this beautiful bird, is that of the Branch Duck; which it has, no doubt, received from the singular circumstance of it's being fond of perching on branches of the tallest trees.
${ }^{66}$ The most beautiful birds that I have seen in this country," says M. Dierville, in his Voyage au Port-Royal de l'Acadie; or, Voyage to Port-Royal in Acadia, or Nova Scotia; 's are the Branch Ducks: so called, because they perch. Nothing is finer, or better mingled, than the endless variety of colours that compose their plumage : but I was still more astonished, to see them perched on a pime, an oak, or a beech tree; and to find, that they actually hatch their young in a hole of some of these trees, where they rear them till capable of quitting the nest, and of following, by instinct, their parents to the water. They are very different from the common ducks of that country; which are denominated Black, and are almost entirely of that colour, without being varicgated like the Ducks of Eurcpe. 'The Branch Ducks have a more slender body; and they are, likewise, more delicate food."

## SUMMER DUCK OF CAROLINA.

$=$ According to Du Pratz, this beautiful Duck inhabits Louisiana. "The Branch Ducks," says this author, " are somewhat larger than our teals. Their plumage is so exceedingly beautiful, and so changing, that painting cannot imitate it. They have on the head a beautiful crest of the brightest colours, and their red eyes appear like flames. The natives deck their calumets or pipes with the skin of the neck. Their flesh is very good; but, when too fat, it has an oily taste. This species of Duck is not migratory: it is found in all seasons ; and it perches, which the rest ${ }^{3}$ do not."

The Summer Duck of Carolina is smaller than the common Duck; but it's legs are longer in proportion. Thase rich descriptions, however, apply only to the male, or drake; for the femaic is as simply clothed as the male is pompously attired. She is, in fact, almost brown; " having however," according to Ed:vards, "somerhing of the crest of the male." This observer adds, that he received several of these charming Ducks

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SUMMER DUCK OF CAROLINA.
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alive from Carolina; but he does not inform us whether they bred in England.

From the name of Summer Ducks, given to them by Catesby in his celebrated History of Carolina, " it seems to be inferred," says Buffon, " that they reside there, and in Virginia, during the summer only." In winter, they have been supposed to retire to Mexico. They breed, however, in Carolina and Virginia; placing their nests in the holes made by the woodpeckers in large trees near water, and are said to be particularly attached to the cypress. "The parents," says Buffon, " carry the young into the water on their backs; when the ducklings, on the smallest symptoms of danger, cling fast by the bill of the old one."




## BANKSIA SERRATA.

THIS is one of the four species of Banksia lescribed in the Supplementum Plantarum of Linnæus, specimens of which are contained int the Herbarium of that incomparable naturalist, now in the possession of Dr. Smith, of Marlborough Street, London.

Though this plant, which is a native of New Holland, has received from Limneus the name Banksia Serrata; it is called; by Dr. Gaertner, Banksia Conchifera.

This circumstance, which in truth would need no apology, were it not for the very superlative merits of Limæus, has received a very liberal one in the Appendix to Mr. White's Journal of his Voyage to New South Wales, which we shall take the liberty to transcribe.
" Dr. Gaertner, in his admirable book on fruits and seeds, has figured the fruit of several Banksias, some of them described by Linneeus. Having had his plates, with the names, engraved before he saw the Supplementum of Linnæus, his nomenclature differs from that

## BANKSIA SERRATA.

of the last mentioned author; but he quotes his synonyms in the letter-press. We mention this, that he may not be accused of wantonly changing Linnæan names; and that for the worse, as it would appear to any one uninformed of this circumstance."
" The character of the genus," proceeds Mr. White's Appendix, which we have been informed was written by Dr. Shaw of the British Museum, " is very badly made out in Linnæus. Gaertner has greatly corrected it: but it is still a doubt, whether the flowers are constantly monopetalous, or tetrapetalous; nor have we materials sufficient to remove this difficulty. All we can say is, that Banksia is next in natural arrangement to Protea; from which it is essentially distinguished, by having a hard, woody, bivalve capsule, containing two winged seeds, with a moveable membranous partition between them. It is strangely misplaced in Murray's 14th edition of Systema Vegetabilium, being put between Ludwigia and Oldenlandia!"

Though nothing, perhaps, can be objected 10 these general remarks on the different spe-
cies of Banksia, we cannot but incline to an opinion, however presumptuous it may appear, that in the instance of the Banksia Serrata, at least, the appellation of Gaertner, which is Banksia Conchifera, cannot be regarded as a worse name than that of Linnæus. Were the merits of these two distinguished naturalists to be put in competition on this single point, we might even be tempted to prefer Gaertner to a man who has, in fact, no parallel. The name Serrata, it is true, being taken from the leaf, is a more constant denomination ; but still, in it's fructification, or most perfect state, it has so much the appearance of bearing shells, that we should prefer the Conchifera of Gaertner, if we did not think it right to follow, in almost every thing, him who has in almost every thing surpassed all other naturalists with respect to the systematic arrangements of nature.

The Banksia Serrata, then, which we have faithfully copied from an original drawing actually made in New South Wales from the living plant, is considered as the most stately of the genus. It's trunk is thick, and rugged;
and the leaves, which are alternate, stand thick about the ends of the branches, on short footstalks, and are narrow, obtuse, strongly serrated, or notched at the edges, smooth, and of a bright green colour above, but beneath opaque and whitish, with a strong rib running through their middle. A very large cylindrical spike of flowers terminates each branch : most of these flowers, however, are abortive; a few only, in each spike, producing ripe seed. The form of the capsules may be understood from the annexed figure, which represents a whole spike in fruit, but only about one-fifth of the natural size. Our figure, too, is not taken at the time of it's full maturity, since the shelly appearances are then scen open, somewhat like the aperture of a divided cockle-shell. The capsules are covered with a thick down.

The Banksia Serrata, when in bud, sreatly rescmibles the lianksia Incognita, as we have delineated that piant, except that the colour is of a blueish hue. When in Hower, the colour is nearly lilac.

## NATURALIST’s POCKET

## MAGAZINE;

OR,

COMPLEAT CABINET OF NATURE.

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& \text { No XXIII. } \\
& \text { containing, }
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I. The HEDGEHOG.
2. The BLUE-BREASTED PARROT.
3. The COMMON ANGLER.

COLOURED AFTER NATURE.

WITH
DESCRIPTIONS.


## HEDGEHOG.

THE character of this genus of animals, in which there are very few species, is-that they have five toes on each foot; and the body is covered with strong spines, or prickles.

Though the Common Hedgehog, or Erinaceus Europæus of Linnæus, has a very formidable appearance, it is one of the most harmless creatures in the universe.

It's head, back, and sides, are covered with strong sharp spines or prickles ; but the nose, breast, and belly, are cloathed with fine soft hair. The legs are short, almost naked, and of a dusky colour ; the ears are broad, round, and naked; the eyes are sinall, and placed high in the head; the mouth, which is also small, is, well furnished with teeth, to chew it's food, but of little use either for attack or defence. The toes on each foot are long and serrated; and the tail, which is little more than an inch in length, is so concealed by the
spines as scarcely to be visibie. .The prickles, which are about an inch in length, are very sharp-pointed; their points are whitish, the middle of them being a dark or dusky brown, and the lower part of the same colour with the tips.

The common Hedgehog, from the point of the nose, to the extremity of it's tail, usually measures about ten inches. The legs, tait, and snout, are generally of a dark, or blackish colour.

This animal has the power of defending itself from the enemy with which it declines to combat, and of annoying the foe which it never ventures to attack. Possessed of little strength, and less agility, to encounter or escape it's assailants, it has received from Nature a prickly armour, with the faculty of rolling itself up into a ball, and thus presenting, from every part of it's body, a poignant weapen of defence. Even from it's fear does the Hedgehog obtain another engine of security; for the smell of it's urine, which excess of apprehension generally induces it to shed, so much
annoys the nostrils of it's enemies, as to make them abandon the pursuit, and retire to 2 considerable đistance.

When touched, it does not offer to escape, or to defend itself with it's teeth or feet: but, instantly rolling itself up, presents only a round mass of prickles, impervious on every side. In this form, it patiently waits till it's enemies either pass by; or are fatigued with fruitless attempts to annoy it.

The cat, the weasel, the ferret, polecat, and martin, soon decline the combat; birds of prey never venture to seize it; and even the dog generally makes it's attacks in vain. Accumulated danger only increases this animal's precautions to keep on it's guard; and, in attempting to bite, the assailant more frequently receives than inflicts a wound. The enraged dog barks, and rolls the animal along with it's paws; but the patient Hedgehog submits to every indignity for the sake of remaining secure. The dog, at length, after expressing it's chagrin by barking, leaves the inoffensive animal as it was found: when

## IEDGEHOG.

the Hedgehog, finding itself free from danger, ventures to peep out from it's ball; and, if not a gain interrupted, deliberately advances to it's retreat. The fox, however, is said, by his superlative cunning, to weary out the patience of this little animal; teazing it with such perseverance, that it is at length constrained to unfold, when the artful glutton instantly devours it.

Like most wild animals, the Hedgehog spends the greatest part of the day in sleep, and is principally in motion during the night. It generally resides in small thickets, in hedges, or in ditches covered with bushes; making a hole about six or eight inches deep, which it lines with moss, grass, or leaves.

This animal feeds on roots, fruits, worms, and insects; but is falsely charged with sucking cows, and wounding their udders : indeed, the smalliness of it's mouth might seem sufficient to exculpate it from this reproach.

It is also said to be very destruetive to gardens and orchards; where, according to the
opinion of the vulgar, it rolls itself among a heap of fruit, and thus contrives to carry off a large quantity, which are transfixed on it's prickles. This imputation, however, is as unfounded as the former; since it's spines are evidently so disposed, that no fruit will stick on them, even when the experiment is attempted by human hands. In short, instead of being a noxious animal, and deserving proscription, it seems to us a very serviceable agent for destroying worms and insects, which are so prejudicial to vegetation.

As vulgar errors are not easily eradicated, we shall support our opinion by the testimony of the celebrated Buffon.

That naturalist, compleatly acquits Hedgehogs from the charge of being mischievous in gardens; but, at the same time, he accuses them of practices which their form and genetal habits would little incline us to suspect.
"I I have often," says he, "had the female and her young, brought me in the month of June: they are generally from three to five in
number; and are at first white, with only the rudiments of their spines apparent.
" Desirous to rear some of them, I once put the dam and her young into a tub, with abundant meat, bread, bran, and fruit; but the mother, instead of suckling her young, devoured them all, one, after the other.
" On another occasion, a Hedgehog that had made it's way into the kitchen, discovered a little pot, in which there was some meat prepared for boiling; when the mischievous animal drew out the meat, and left it's excrements in the stead.
" I kept males and females in the same apartment; where they lived together, but never coupled. I permitted several of them to range my garden: they did very little damage ; and it was scarcely perceivable that they were there. They lived on the fruits which feil from the trees; dug the earth into shallow holes with their snouts; and eat caterpillars, beetles, and worms, as well as some kinds of rocits. 'They were also very fond of flesh, which

## HEDGEHOG.

which they devoured either boiled, roasted, or raw."

These animals inhabit every part of Europe, except Lapland, Norway, and other very cold climates; and, as we are told by Flacourt, Hedgehogs like those of France, are found at Madagascar, where they are called Soras.
" Hedgehogs," says Buffon, "6 when at large in the country, are generally found in woods, under the trunk of old trees, as well as in the clefts of rocks. I do not believe that they ever climb up trees, as some naturalists have affirmed; or that they make use of their prickles to carry off the fruit, since it is with their mouths that they seize it. Though they are very numerous in the forests of France, I have never seen one of them on a tree: they always remain at the foot, in some hollow space, or under moss.
" They seldom approach human habitations; and, though they prefer dry and hilly grounds, they are not unfrequently found in meadows."

Hedgehogs

Hedgehogs couple in the spring, and bring forth about the beginning of summer.

They sleep during the winter; and, conse quently, the stories which have been propa. gated, respecting their providing against tha season, are certainly false: they are at al times satisfied with a small portion of food and are capable of subsisting a long time without any aliment whatever.

Like all other animals which remain in a torpid state during the winter, their blood is cold. Their fiesin, though gererally rejectec as unfit for human food, is nevertholess saic by some nataralists to possess an excellent flavour. .

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## BLUE-BREASTED PARROT.

FOR this very beautiful bird, which Edwards has named the Blue-Breasted Parrot, we are indebted to that ingenious naturalist.

By him we are informed, that this species is about eleven inches long; that the bill is remarkably black; that the head, neck, and back, are of a fine scarlet colour; that the breast and shoulders are of a deep rich blue; that the wings are scarlet, the primaries being blue; that the thighs are scarlet, with a few blue feathers intermixed; and, that the tail, which is very long, is of a bright scarlet colour, tipped with pale orange.

Few other naturalists have noticed this bird; which, probably, differs little or nothing, except in beauty of hue, from the generality of the species.



## COMMON ANGLER.

THE Common Angler is to be classed, not among the beauties, but the curiosities of Nature. It is, in fact, one of the most deformed inhabitants of the ocean.

This very singular species of fish was known to the ancients, by the names of Batrachos, and of Kana: among us, it has obtained the several appellations of the Toad Fish, the Frog Fish, and the Sea Devil; as well as it's most general denomination, the Common Angler.

It's entire form much resembles that of a frog, or toad, in their tadpole state; from which circumstance it has, of course, derived two of it's various names: but, as the fish often grows to the length of four or five feet, the vast difference of magnitude, between that and a tadpole, would prevent, in many minds, any idea of assimilation, without some previous hint of an existing likeness.

The head of the Common Angler, which is considerably larger than the full extent of the whole body, is round at the circumference, and flat above; and the mouth is sometimes a yard wide. The under jaw is longer than the upper, and both are well armed with slender sharp teeth. In the roof of the mouth, there arc also two or three rows of similar teeth; and, at the root of the tongue, are two elliptical bones, opposite each other, both likewise thickly set with very sharp teeth. The nostrils have no external orifice; but there are two large internal apertures in the upper part of the mouth, which supply their place. On each side of the upper jaw, are two sharp spines; and there are several others scattered over the upper surface of the head. Exactly above the snout, there are two long tough filaments; and, on the back, there are three more. To these filaments, Pliny gives the name of corniculæ ; asserting, that the animal makes use of them to attract small fish. With these extended, according to this author, the Common Angler, thus named from the circumstance, conceals itself in muddy waters, leaving only these corniculx, or beards, visible :
visible: the curiosity of the smaller fish soon prompts them to approach and view these filaments; when, their hunger inducing them to seize the bait, the ambushed Angler instantaneously draws in it's appendage, with the adhering little fish, which is thus precipitated into it's enormous mouth, and greedily devoured.

This account, however improbable it may appear, has gained credit among some of our most distinguished naturalists ; who, perhaps, have not sufficiently reflected that, from the multitude of fables blended with the facts of that naturalist, he is entitled but to a small degree of credit, where credulity seems called for, unless surported by some less doubtful authority.

On this occasion, say some naturalists, a strong presumption seems to oppose what is asserted by Pliny : since, it is well known that there is one species of this fish destitute of these filaments; which, they add, it certainly would not want, were they necessary to the existence of the kind.

## COMMON ANGLER.

But, after all, this reasoning, we apprehend, will not of itself overthrow what is advanced by Pliny: since he has not any where asserted that it is absolutely necessary to this fish's existence, that it should possess these filaments; and, if it were, it would by no means follow, that another species, without them, might not enjoy other means of obtaining ir's food.

Few people possess any opportunity of ascertaining facts, as to the habits of this fish; which, certainly, if no credit is to be given to the account of Pliny, has very little right to the appellation by which it is most commonly distinguished.

For our own parts, we profess our entire ignorance of the truth : though we risque little in suggesting, that these filaments can never be the sole means of the animal's securing it's prey ; since it is well known to be a great destroyer of the dog fish, which it could never possibly master by such means. Why. then, it may be demanded, cannot that species of the Angler which wants these filaments. obtaia ali is"s foul be the same means as the

Common

Common Angler procures the most important part of it's own?

From this opposition of opinions, however, the reader gains little knowledge of the fact, which appears still to remain problematical.

We must, therefore, content ourselves, till farther information on the subject may occur, with compleating our description of the fish, according to it's appearance, without farther notice of it's habits.

Along the edges of the head and body are a great number of short, fringed, skinny substances, placed at equal distances. The ventral fins are broad, thick, and fleshy; jointed like arms ; and, in the insides, divided into fingers. The aperture to the gills is situated behind, and is very large; the back fin is placed very low, near the beginning of the tail; and the anal fin is beneath, nearly opposite the former. The body becomes extremely slender near the tai!, the end of which is quite even..

The upper part of the Common Angler is of a dusky colour; the lower part is white; and the skin is smooth throughout.

Rondoletius informs us that, if we take out the bowels of this fish, the body will exhibit a transparent appearance; and that, accordingly, if a lighted candle be placed within the body, as in a lanthorn, the whole will have a very luminous and formidable aspect.

The fishermen, in general, entertain a very great veneration for this hideous fish. They consider it as a great enemy to the dog-fish, from having frequently found the body of that fierce and voracious animal in it's stomach; and, therefore, whenever they happen to catch the Common Angler in their rets, they now usually compliment it with it's liberty.

## NATURALIST's POCKET

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1. The FOSSANE.
2. The AMERICAN PELICAN.
3. The FLYING MAUCAUCO.

COLOURED AFTER NATURE.

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## DESCRIPTIONS.


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## FOSSANE.

THE Fossane is a beautiful animal of the weasel kind, about the size of a cat. It's body, which is slender, is covered, in general, with ash-coloured hair, mixed with tawny. Four black lines extend from the hinder part of the head towards the back and shoulders; the whole underside of the body is a dirty white; and the tail is semi-annulated.

This animal, which inhabits Madagascar, and Guinea; Cochin-China, and the Philippine Isles; is fierce, and difficult to be tamed. In Guinea, according to Bosman, it is called Berbe, by the natives; but the Europeans, there, have named it the Wine-Bibber, from it's excessive fondness of palm-wine: it is, also, very destructive to poultry. Flacourt, in his History of Madagascar, informs us, that it is there considered as good food, and called Fossa; whence, most probably, has been derived the European name Fossane, which we have adopted from Buffion.

In describing this animal, naturalists have certainly differed from each other; but, perhaps, not more than animals of one known species are very frequently seen to vary.

Pennant says, that the specimen of the Fossane in the Leverian Museum, differed in so many respects, that he found it necessary to give a full description of it.

He accordingly describes it, as a weasel with a white spot on each side of the nose, and another beneath each eye; the rest of the nose, cheeks, and throat, being black. The ears are very large, upright, rounded, thin, naked, and black; the forehead, sides, thighs, rump, and upper part of the legs, are cinereous; on the back are many long black hairs; and, on the shoulders, sides, and rump, are dispersed several black spots. The tail, which is black towards the end, and mixed with tawny near the base, is slightly annulated with black, and in length equal to the whole body. The feet are blackish, and the claws white. This animal, Pennant adds, is the size of the Genet, to which is bears a great resemblance.

Buffon, in describing the Fossane, observes that it is called by some travellers the Genet of Madagascar, on account of it's resemblance to that animal, in the colour of it's hair, and some other affinities. But, says Buffon, it is, in general, much smaller; and proves, to us, that it is not of the same kind, by it's want of an odoriferous bag, the essential attribute of the Genet. To ascertain this fact, the Count De Buffon, who had been unable to procure one of these animals for dissection, wrote a letter to Monsieur De Poivre, on the subject: in answer to which, he received the skin of a stuffed Fossane, with the following information.
" The Fossane which I brought from Madagascar, is an animal much resembling, in it's manners, those of our pole-cat. The inhabitants of the island assured me that, when the male Fossane is in heat, he emits a very strong smell like that of musk. When I skinned one of these animals, which was in the royal garden, I did not discover any bag, nor did I find any odoriferous smell. I reared two of these animals, which were both males. I had thens

## FOSSANE.

them very young, and kept them about two or three months, in which time they had grown pretty familiar. I never found any bag in the parts you mention; but only observed, that their excrements had the same smell as those of our pole-cat. They eat both flesh and fruit, but preferred the latter. The Fossane is a very wild animal, and extremely difficult to be tamed. Though those which I had were taken very young, they retained the aspect and character of forocity; which appeared to me somewhat extraordinary, in an animal which prefers fruit for it's food. The ere of the Fossane represents a black globe, very large in comparison with the size of it's head, which gives this animal a mischicrous loon."

Buffon adds, that the Berba, or Berbe. of Guinea, is said by travellers, to have a more pointed snout, and a smaller body, than our cat, and to be speckled like the civet. We know, concludes Buffon, of no other animal with which these indications so well agree, as that which we have just described under the name of the Fossane.


## AMERICAN PELICAN.

THE species of large birds, in general, like those of the large quadrupeds, Buffon repeatedly observes, exist single, detached, and almost without varieties. In the Pelican, he is of opinion, these varictics may be reduced to two : the Brown Pelican, and the Saw-Dilled Pelican.

The first of these varicties is the bird which we have delineated, and are now about to describe, under the appellation of the American Pelican, agreeably to Edwards and other naturalists. It is the Pelicanus Fuscus of Lin. næus; and Pennant has called it the Dusky Pelican.

The plumage of the Pelican, Buffon remarks, is subject to vary; which, according to the bird's age, is found more or less white, and tinged slightly with rose-colour: it secms also to vary from circumstances, for it is, sometimes mixed with grey and black. 'These differences have been remarked between indi-
riduals which undoubtedly belonged to the same species. Some, it is observed in "Memoires de l'Academie des Sciences," had their plumage entirely white, with a light and transparent cast of flesh-colour; except the wings, the great quills of which had a tinge of grey and black: the rest were of a much more decided flesh or rose-colour.

These intermingled colours, however, are so little removed from a general grey or brown cast, that Klein does not hesitate positively to assert, that the Brown and the White Pelicans are only varieties of the same species. Sir Hans Sloane, who had carefully observed the Brown Pelicans of America, confesses also that they appeared to be the same with the White or Common Pelican. Oriedo, too, speaking of the Pelicans with a cinereous plumage, which are seen on the rivers of the Antilles, remarks that some of them are of a very fine white.

Buffon inclines to think, that the browil colour, is the garb of the young ones; for the Brown Pelicans have generally been found to

## AMERICAN PELICAN.

be smaller than the white. Those seen by Ellis, and others, near Hudson's Bay, were also smaller, and of a dusky cast; so that their white is not occasioned by the severity of the climate. The same variety of colour is observed in the hot countries of the ancient continent. Sonnerat, after having described two Pelicans of the Philippine islands-the one brown, and the other rose-coloured-expresses a suspicion, that he had only viewed the same bird at different ages.

This opinion of Buffon's, he observes, is confirmed by the circumstance of Brisson's having given a Philippine Pelican; which seems to form the intermediate shacie, being not wholly either grey or brown, but having only the wings, with part of the back, of that colour, and the rest white.

For our parts, however, we shouid not be surprised, if this Philippine Pelican of Brisson, as it is called, should be no other than our American Pelican. I.t the readers jindge for themselves, from the folloving descriptions of both.

Brisson's Philippine Pelican is described as being "above grey cinereous, below white, and the rump of the same colour; the head and neck bright whitish, with a longitudinal bar on the upper part of the neck variegated with brown and whitish; the greater wing-quills cinereous blackish; the tail-quills cinereous. white, their shafts being blackish, and the lateral ones a bright white at their origin."

Our American Pelican has the whole head and neck covered with white feathers; the feathers on the back are small, white at their shafts, and of a dusky black ash-colour on their sides, all terminating in points; the tail is ash-coloured; the great quills of the wings are black; the lesser coverts of the wings are white in their middles, edged with cinereous; and the breast, belly, and sides, are of a dark ash-colour, approaching to black, without any intermixture of light colours. The legs, which are short, are of a dirty yellow greenish colour; and the claws are dusky.

The American Pelican is found from the Antilles, and Terra Firma, the Isthmus of Panama,

## AMERICAN PELICAN.

nama, and the Bay of Campeachy, as far as Louisiana, and the country adjoining to Hudson's Bay. These birds are seen, also, on the inhabited isles and inlets near St. Domingo ; and are very numerous on those small verdant isles which lie in the vicinity of Guadaloupe, and which seem to be adapted for the retreats of different species of winged inhabitants. One of these has even been called, by the French, 1'Isle aux Grand-Gosiers, or the Island of Pelicans. The name Grand-Gosier, or Great Gullet, having been given to the Pelican, by the French inhabitants of the West India islands, on account of the large sac beneath it's bill; as the Alpine inhabitants of Savoy are called Goitres, from the similar swelling in their throats, to which these mountaineers are subject.

The Pelican has been employed, by priests, and by pocts, as an emblem of maternal tenderness; lacerating it's breast, to nourish it's young with the flowing blood. This tale, which the ancient Fggptians related of the vulture, is thought to have been first applicd to the Pelican by St. Augustine, and St. Jerome.

## AMERICAN PELICAN.

But the fable is not in the slightest degree applicable to the Pelican.

Father Labat informs us, that nothing can exceed the indolence of the Pelican, but it's gluttony. When it has, with difficulty, raised itself thirty or forty feet above the sea, it turns it's head with one eye directed downwards, and continues to fly in that position till it perceives a fish sufficiently near the surface; when, with amazing swiftness, and unerring certainty, it darts down, and seizes the fish, which it deposits in it's bag. 'Thus it proceeds, though always rising slowly, till it has flled it's pouch; when it flies to land, and devours the prey at leisure. At night, this indolent bird retires a little way from the shore; and, though it has the wobbed feet and clumsy figure of a soose, it will porch only on some tree, among the light and airy tenants of the forest. Here, too, it spends great part of the day; sitting in dismal solemmity, and scomingly halt asleep. Nor is it less filthr, than slothful and voracious; leing secn, almost every moment, to void excrements of prodigious magnitude.

The

The female drops her eggs, to the number of four or five, on the bare ground; and, in that situation, they continue till hatched. She patiently suffers them to be taken away; only just venturing to peck, or to cry, when disturbed, as if actuated more by personal fear, than parental affection. That she feeds her young, however, for some time, with macerated fish, was ascertained by Father Labat; who, having taken two Pelicans very young, tied them by their legs to a post stuck in the ground, where he had the pleasure of seeing the old one come to feed them. She remained with them the greatest part of the day, and spent her nights on the branch of a tree which overshadowed them. Thus all three became so tame, that they suffered themselves to be handled; and the young ones very readily accepted whatever fish were presented, always first putting them into their bags, and then swallowing them at leisure.

Father Raymond assures us, that he has seen a Pelican, in South America, so tame, and well educated, that it would go off in the morning, at the word of command, and return
to it's master before night, having it's pouch distended with plunder; part of which the proprietor made it disgorge, and part he permitted it to retain for it's own sustenance.

The Bag of the Pelican, is termed Blague, or Blade, in the French West India islands, from the English word Bladder. It is prepared, by well rubbing between the hands, to soften the skin; and, to increase it's pliability, it is smeared with the butter of the cocoa, and again passed between the hands: care being taken to preserve from injury that part covered with feathers, which is considered as very ornamental. The sailors, when they kill a Pelican put a cannon-ball, into the bas, and then hang it up, to give it the shape of a tobacco-pouch. Sometimes the $y$ convert these bags into caps. 'They are also dressed by the American Indians, who make them into purses and tobacco-pouches. They are the thickness of good parchment, but extremely pliant and solt ; and the Spanish women in South America, by sewing them tastefuliy with gold and silk, form beautiful work-bags.

The flesh is much too rancid for human fonct.




## FLYING MAUCAUCO.

'THIS curious little animal, the Lemur Volans of Linnæus, has received the appellation of the Flying Maucauco ; from it's being somewhat similar to the Maucauco, as the Flying Squirrel is to the Squirrel properly so called: both, however, having wings, like the Bat tribes, by which they are enabled to fly. In short, it is one of those animals which sometimes so equally partake of the nature of quadrupeds, and of birds, that it is difficult to decide in what rank they are most properly placed ; and which, therefore, it is, perhaps, best to consider, in general, as a distinct class, filling up what might otherwise seem a chasm in nature between the two descriptions.

The Flying Maucauco, however, it must be confessed, has in it's formation but a very slight approximation to the winged tribes.

It has a long head, and a. small mouth, with little round and membranous ears. There
are no fore-teeth in the upper jaw; but, in the lower, there are sin, which are short, broad, elegantly pectinated, and placed distant from each other. From the neck to the hands, and from the hands to the hinder feet, extends a broad shin like that of the flying squirrel; and this skin is also continued from the hinder feet to the tip of the tail, which is included in it. The body, and the external part of this skin, are wholly covered with soft, hoary, or black and ash-coloured, hair: but, in adults, the back is hoary, crossed transversely with black lines. The inner side of the extended skin appears membranous, with small veins and fibres dispersed throughout; and the legs are cloathed with a soft vellow टंown. Each foot has ifve toes; and, the claws being broad, short, and crooked, the animal very strongly adheres to whatever it fastens on.

The entire length of the Flying Maucauce is about thace fect; it's ail, which is very slender, being a span long.

This animal inmbits the countre about (inzotrat: and is aiso a native of the Molucea and
and Philippine islands. It resides wholly in trees, and feeds on the delicious fruits of those climes. In descending from the top to any inferior part of a tree, it spreads it's mem. brane, and balances itself to the place which it is desirous of reaching, in a gentle and wary manner; but, in it's ascents, it uses a sort of leaping motion.

It is called, by the different Indians, who inhabit these countries, the Caguang, the Colugo, and the Gigua.

The Flying Maucauco has two young at a time; which adhere firmly to the maternal breasts by means of their mouths and claws.

Though this animal is most certainly a very distinct species from the bat, and the flying squirrel ; the genus assigned it by Linnæus, who classes it among Maucaucos, is by many naturalists considered as somewhat doubtful.

There seems, in fact, so litlle decisively characteristic of the Maucauco, more than of many other animals, in the Flying Muacauco.
that we should, perhaps, have been strongly tempted to reject any avowal of the alliance, had the name not been suggested by an authority so great as that of this superlative naturalist. It is but just to remark, however, that equal objection might possibly be made to any other precise denomination, borrowed from a different quadruped: so that the want of absolute perfection may be as well sustained in him who, perhaps, approaches it the nearest, as in those who are unable to boast any such pretensions.

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x. The COUGAR.
2. The SPOTTED KING.FISHER.
3. The MORRON BEETLE.

COLOURED AFTER NATURE.



## COUGAR.

T
The Cougar, or Tigris Fulvus, has received many appellations. In both Catesby's, and Lawson's Carolina, it is even called the Panther; in Marcgrave's Brasil, and Ray's Synopsis of Quadrupeds, it has the name of Cugacuarana, whence probably was derived that of the Cougar, or Couguar of Buffon: Schreber calls it Felis Concolor, and it is likewise described under that name in Molina's Chili.

Nor does the list end here: for, in South America, it is not only called Puma, but even mistaken for the lion ; and $i t$ is also, in many parts of America, very commonly denominated the Red Tiger.

But, as Buffon observes, it is neither marked with long stripes, like the tiger; nor with round and full spots, like the leopard; nor with annular spots, like the panther and the ounce. It is, he says, equal in length, but inferior in thickness, to the jaguar; having a
small head, and a long tail. The hair, which is short, is neariy of one entire colour; namely, a lively red, intermixed with a few blackish tints, particularly on the upper part of the back. The chin, neck, and all the inferior parts of the boily, are whitish.

Pennant describes the Cougar as having a very small head; ears a little pointed; eyes large; chin white; back, neck, rump, and sides, pale brownish red, mixed with dusky hairs; breast, belly, and insides of legs, cinerous; hair on the belly lung; tail dusky and furruginous, the tip being black; teeth of wast size; claws white, the outermost claw of the fore-feet being much longer than the others: the body long; and the animal standing high on it's legs. The length, he adds, from nose to tail, is five fect three inchos, and the tail tro feet eight. 'The anmal purrs like a cat.

Goldsmith, though he cannot but admit, that the Cougar is vory different from the tiger of the east, says-" Some, however, have thought proper to rank both together, and I will take leave to follow their cxample: metely
because the Cougar is more like a tiger, in every thing except the colour, than any other animal I know; having the head, the body, and the neck, shaped very much in the same manner. Of these slight differences, words would give but a very faint idea; it will be, therefore, sufficient to observe, that they are both equally slender, and are smaller where the neck joins the head, than others of the panther kind. 'There is one at present in the Tower, and it seemed to me, as well as I could see it through the bars, that were it properly streaked and coloured, it would in all things resemble a small tiger. It is, however," the doctor adds, " of a very different colour; being of a deep brown, and the tail very long and pointed. It is rather darker on the back; and, under the chin, it is a little whitish, as also on the lower part of the belly.
"Of all the $\Lambda$ merican animals," continues the doctor, "this is the most formidable and mischievous; even their pretended lion not excepted. It is said, there are several sorts of them; and, as well as I can remember, I have seen one or two here in England, buth differ-

## COUGAR.

ing from the present in size and conformation. It is, indeed, a vain endeavour, to attempt to describe all the less obvious varieties in the cat kind. If we examine them minutely, we shall find the differences multiply upon us so much, that instead of a history, we shall only be paid with a catalogue of distinctions. From such of them as I have seen within these last six years, I think I could add two animals of this species, that have not been hitherto described, and with the names of which he that shewed them was utterly unacquainted. But it is a poor ambition! that of being eager to find out new distinctions, or adding one noxious animal more to a list that is already sufficientlo numerous. Were the knowing a now variety to open an unknown history, or in the least to extend our knowledge, the enquiry would he then worth pursuing; but what signifies mentioning some trifling difference, and from thence becoming the authors of a new name, when the difference might have originally prococded cither from climate, soil, or indiscrimi. nate copulation?"

Though little could fall from the pen of Dr. Goldsmith,

Goldsmith, that was not, at least, ingenious ; few modern naturalists, it is presumed, will subscribe, in toto, to what he has advanced on the subject of minute discriminations, which not unfrequently lead to important distinctions.

With respect to the Cougar, it is, most unquestionably, a quite different animal from the tiger; though it's habits, as well as it's conformation, are in many respects similar.

It inhabits America, from Canada to Brasil, and is the scourge of the colonies in all the hotter parts of the new world. Fierce and ravenous in the highest degree, it swims over the broad rivers, and attacks cattle even in inclosures; and, when pressed with hunger, spares not even mankind. In North America, it's ferocity seems to be greatly subdued by the rigours of the climate: the smallest cur, in company with it's master, makes the Cougar seck for security, by running up trees; but then it is equally destructive to domestic animals, and constitutes the greatest nuisance which the planter has to encounter.

This animal, by the agility of it's body, and the length of it's legs, Buffon remarks, seems calculated to run, and to climb trees, better than the jaguar. They are both, he adds, equally remarkable for sloth and cowardice, when once glutted with prey; and seldom are known to attack men, except when they find them asleep. Travellers, who may find it necessary to pass the night, or halt, in the woods, need no other precaution, to prevent their approach, than that of kinding a fire.

The Cougar delights in the lofty shades of the forest, where it hides itself in the covert of a thick tree, waiting the approach of some animal, chiefly the moose or other deer; and, as one of these animals passes, drops on it, and instantly destroys it. Charlevoix, who mentions this property in the Cougar, calis it, by mistake, the carcajou. But, though deer of different descriptions are the usuak prey of the Cougar, it is known cren to attack some of the fiercer anmals. Pennant mentions, that the Cougar, whose skin is in the Museum of the Royal Socicty, was hilled just as it had pulled down a wolf.

In South America, where the Cougar greatly abounds, as the towns generally border on forests, it frequently makes incursions by night into the very houses; from whence it carries off fowls, dogs, and other domestic animals. It is, however, but a weak and contemptible creature, when compared with the tiger; being scarcely able to contend with any of the human species singly. The negroes, and natives, are very dextrous in encountering it; and some of them, for the $\cdot$ sole sake of it's skin, the fur of which is soft, and with which they cover themselves in the winter season, anxiously explore it's retreats. The weapons used in this apparently perilous undertaking, by the Indians, consist only of a lance about two or three yards in length, made of a ponderous wood, and having it's point hardened by the fire, and a kind of scymitar about three-quarters of a yard long. Thus armed, the Indian waits till the Cougar makes an assault on his left hand; which wields the lance, and is wrapped up in a short baize cloak. Sometimes the animal, aware of it's danger, seems to decline the combat; in which case, it's antagonist endeavours to provoke it, by a
slight touch of the lance; that, while the animal is defending itself, he may strike a secure blow. As soon as the Cougar feels the lance, it grasps the weapon with one of it's paws; and, with the other, strikes at the assailant's arm. It is at this critical juncture, that the Indian nimbly aims a blow with the scymitar, hitherto concealed in his other hand, and hamstrings the animal. The Cougar instantly draws back; but, being enraged, as suddenly returns to the charge. However, on receivanother stroke, it is generally-deprived of the power of motion; when the Indian, after dis. patching it without farcher molestation, shim, the animal, and cuts off the head, with which he returns to his companions, displaying them as trophies of his victury.

This animal, we are assured, is often more successful against the crocolile; and is, in fact, the only quadruped, which that part of the world affords, that is not afraid of the contest.
" It must," savs Goldsmith, " be no unpleasant sight, to observe, from a place of safety,
safety, this extraordinary combat between animals so terrible and obnoxious to man."

When the Cougar, impelled by that ardent thirst which seems perpetually to consume it, comes down to the river's side, and begins to drink, the crocodile, which makes no distinction in it's prey, lifts it's head above water, to seize the animal; which, not less rapacious than it's assailant, and unapprized of the strength of the enemy, boldly ventures to plunge it's claws into the eyes of the aggressor. 'The crocodile, thus seized in it's only vulnerable part, instantly dives under water; and the Cougar, having fixed it's claws, being as unwilling to relinquish it's hold as it's existence, descends with it's antagonist. 'There the combat continues, till the Cougar is drowned, as is sometimes the case, or escape: from it's disabled adversary.

When the French first settled at Cayenne, the infant colony suffered greatly from the devastations of the Cougar; but, by degrees, it was so repelled and destroyed, that this animai is no longer found in the vicinity of that place.

## COUGAR.

place. In Brasil, Paraguay, and the country of the Amazons, it is very frequently seen climbing up trees; either in quest of prey, or to avoid it's pursuers. Like all other animals of the cat kind, it is terrified at the sight of fire, and seldom ventures to approach; for, it not only suspects, as is imagined, it's enemies to be always near, but the brightness powerfully dazzles it's nocturnal eyes.

From the natere of this animal, which quenches it's thirst, Buffon says, more frequently with blood than with water, we might naturally suppose that it's flesh is not very proper for human food. It has, however, been said, by some travellers, to be extremely palatable. Piso, in particular, goes the length to assert, that it is as good and as white as veal; and Charievoix, and others, have compared it to mutton. But Buffon thinks it hardly credible, that it can be well tasted: and, therefore, he prefers the testimony of Desmatchais; who intimates, that the hest thing about this animal is it's skin, of which housings are made for horses, it's flesh being generally lean, and of a very disagrecable flavour.


SリOTTH: KISG•YISHFR.


## SPOTTED KING-FISHER.

THE distinguishing characters of the numerous species of the King-Fisher, or Alcedo of Linnæus, which comprehend a genus of beautiful piscivorous birds, are-that the bill is straight, strong, and sharp-pointed; that the tongue is short, and pointed; and that the threc lowest joints of the exterior toe are connected to the middle one.

Of these birds, in general, many fables have been related by the ancients, which will be found more particularly noticed under our description of the common King-Fisher, or Halcyon of the poets.

The species which we are at present to describe, and which, we believe, was first delineated by Edwards, was brought from Surinam, of which place it is said to be a native.

We have no authentic account of any peculiar habits by which it is distinguished from the various other species of the King-Fisher: though, indeed, there is another species, which bears the express name of the Surinam King-

Fisher;

## SPOTTED KING-FISHER.

Fisher; and is distinguished, by Linnæus, under the appellation of Alcedo Paradisea. Both, probably, though considerably different in their formation from each other, have the general habits of the genus, without any essential variations.

The bill of the Spotted King-Fisher is dusky ; a broad line extends from the bill on each side of the head; and there are, beneath the eyes, narrow lines of orange. The throat, breast, belly, thighs, coverts beneath the tail, and inner coverts of the wings, are also of a fine orange colour. Between the back and neck passes a broad list, or collar, of black feathers, edged with white. The crown of the head is black, but graduaily becomes green on the hinder part of the neck. 'The sides of the head are green; and the back, rump, and upper sides of the wings and tal, are also of a fine glossy dark green hue, varicgated with white spots. The under sides of the quills and tail are of a dark ash-colour, with whitish spots on their webs; the tips of the quills externally being dusky an inch deep. The legs and feet are of a reddish flesh-colour.



MORRON BEETLE.


## MORRON BEETLE.

OF this beautiful Beetle, little more than it's existence is known.

It is a native of New South Wales, but is probably scaice; as our friend, in a residence of ten years, saw no other of the species, ex. cept that from which the annexed figures are delineated.

It was brought to him, at Sidney Cove, Port Jackson, as an object of curiosity, which had been found in the interior of the country.

This gentleman immediately procured an exact drawing to be made; representing, not only the upper and under-sides of the Beetle, but the covering from which it was originally produced.

That drawing we have copied with the utmost precision, as well in it's markings, as in it's tints.

## MORRON BEETLE

The natives call this Beetle, the Morron, Mor-rhon, or Mor-rone ; for it is not always easy to convey the exact sound of these rude languages, by any arrangement of letters or syllables. Without having been able to discover what particular signification, if any, this word may denote, as descriptive of the Beetle's form or qualities, we have not scrupled to adopt it.

The beautiful markings, however, which give somewhat of an artificial appearance to this Beetle, and bear very little resemblance to any of the numerous forms in which nature is generally found to adorn her offspring of any description, would make it easy for those naturalists who are solicitous to swell the nomenclature of nature, to give a new and significant name to this very elegant and curious insect.

Though the size of the Morron Bectle, which we have figured, is exactly that of nature; it seems by no means certain, that the animal may not sometimes grow to a superior magnitude.

Indeed,

Indeed, from a comparison of the original covering, with the size of the Beetle, we should incline to suppose, that it actually does grow larger than that which we have delineated; and which, probably, was a young one, not at it's full growth

NATURALIST's POCKET MAGAZINE;
OR,

## COMPLEAT CABINET OF NATURE.

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1. The SIX-BANDED ARMADILLO.
2. The BLUE and RED MACAW.
3. The EMPEROR MOTH, of NEW SOUTH WALES.

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WITH
DESCRIPTIONS.

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## SIX-BANDED ARMADILLO.

The Armadillo forms a genus of animals, consisting of several species: the character of which is, that the head and upper part of the body are guarded by a crustaceous covering, the middle of the body having pliant bands formed of various segments and reaching from the back to the edge of the belly; and, that the animal has neither cutting nor camine teeth.

The whole genus inhabit South America, where they are called Tatous; the more common European name of Armadillos, having been given to them by the Spaniards.

The Armadillo has been called, by some Latin authors, Echinus Brasiliensis; and, by Linnæus, it is denominated, Dasypus Cingulis novem, Palmis tetradactylis, Plantis pentedactylis.

Buffon commences his account of this cu-

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SIX-BANDED ARMADILLO.
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rious animal, with observing that, when we talk of a quadruped, the very name seems to convey the idea of an animal covered with hair; as, when we mention a bird or a fish, feathers or scales present themselves to our imagination, and seem inseparable attributes of these creatures: yet Nature, as if willing to deviate from this characteristic unirormity, and to astonish us by uncommon productions, manifests herself contrary to our general iceas, at variance with our denominations, and with the characters which we have acknowledged. and amazes us still more by hor excentions than by her laws. The quadruped animals, which we regard as the first class of living nature, and which are, next to man, the most remarkable beings of this world, are not in every thing superior, neither are they separated or invariable attributes. The first of these characters, from which even their name is derivel, and which consists in their having four fiet, is common to lizards, frogs, \&ic. which differ, however, from quadrupeds, in many other respects, so as to make a quite distinct class. The scoond general properte, that of producing their young alive, is not peculiar to quadrupeds,
quadrupeds, since it is common with cetaceous monsters. The third attribute, which might seem, from it's being most apparent, to be the least equivocal, and which consists in their being covered with hair, is almost the direct opposite of the two others in several species which cannot be excluded from the quadruped class; because, this characteristic excepted, they are like them in all other respects. These seeming exceptions of nature, continues Buffon, being in reality nothing more than gra.. dations calculated to unite, in one general chain, the links of the most remote existences, -we must not lose sight of such singular relations, but contrive to seize them whenever they present themselves to our view. The Armadillos, or Tatous, instead of hair, are covered, like turtles, cray-fish, and other animals of the crustaccous kind, with a sort of solid crust; the pangolins arc armed with scales, like fish; and the porcupines carry a kind of prickly feathers, the quill of which is like that of a bird: thus, in the class of quadrupeds alone, and by the most constant characteristic of the animals of that class, which are covered with hair, Nature varies in nearly ap-
proximating them to the three other different classes; and brings to our ideas birds, fishes with scales, and fishes and cther animals of the crustaceous kinds. We must, therefore, be cautious, in judging of the nature of beings by one particular characteristic, which would continually lead us into errors: two or three characters, however general, are not always sufficient; and it is only, as Buffon frequently observes, by the re-union of all the attributes, and the enumeration of all the characters, that we can ascertain the essential forms of every production of nature. A good description, adds Buffon, and no definitions; an exposition more exact on the differences than the analogy; and a particular attention to exceptions, and almost imperceptible gradations; are the true rules, and the only means, he maintains, of knowing the nature of every thing: and, if all the time lost in definitions, had been employed in good descriptions, with an exact method, we should not, concludes Buffon, have now found Natural History in her cradle; we should have had less trouble in taking off her baubles, and in disencumbering her of her swaddling-cloaths! We should, perhaps,

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SIX-BANDED ARMADIELO,
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perhaps, have anticipated her slow discoveries; since we should have written more for science, and less against error.

The Armadillo is covered, like the tortoise, with a shell, or rather a number of shells, which prevent it's true proportions from being immediately apparent. At first view, the aninal seems a roundish mishapen mass; with a long head, and a very long tail, sticking out at the two extremities, as if unconnected with the rest of the body. It is of different sizes, from a single foot, or less, in length, to three feet and upwards: and is covered with a shell divided into several pieces, and folding over each other, like the tail of a lobster. The differences in the size of these animals, and the different dispositions of their armour, as divided into a variety of flexible stripes or bands, have been generally considered as constituting so many distinct species, to which suitable names are given: all, however, are cloathed with this partial coat of mail, the conformation of which is justly esteemed one of the greatest curiosities in the ample field of nature.

This

This shell, which in every respect resembles a bony substance, covers the head, the neck, the back, the sides, and the rump, as well as the entire length of the tail. Indeed, the only parts uncovered with this invulnerable armour, are the throat, breast, and belly; and even these, which appear only to have a white skin, resembling that of a plucked fowl, are in fact cloathed with shells in an incipient state, of a substance similar to those on the back. The skin, therefore, in the softest parts, seems to have a strong tendency to ossification, though it only compleatly takes place in such situations as have the smallest degree of friction, and are the most exposed to external injuries. The shells, which lie in bands over the body, are connected by yellow membranes, which give the animal a motion in it's back, and accommodate the armour to every necessary inflexion. The bands are various, in number and proportion. In general, however, there are twelve picces, one of which covers the shoulders, and the other the rump. Between these, on the back, tinc bands are placed, which fold over cach other, and communicate motion to the whole: having openings
across, as well as along the back, so that the animal is enabled to move in all directions. One species of the Armadillo has three of these bands; another six; a third eight; a fourth nine; a fifth twelve; and a sixth, eighteen. The shells are all covered with a thin, sleek, and transparent skin, variously coloured in the different kinds, but usually of a dirty grey, or rather a sand-colour.

Though these shells may well defend the Armadillo from a feeble enemy, they afford but a slight protection against any powerful opponent. Nature has, therefore, with her usual bounty, given this animal the same means of security as that with which it has endued the pangolin and the hedgehog: for, the instant it finds itself attacked, it draws in it's head, leaving no part visible but the tip of the nose ; and, in proportion, as the apprehension of danger is increased, augmenting it's exertions to become more secure, it tucks up it's feet under it's belly, and unites it's two extremities together, where the tail appears like a band to strengthen the rolled part into a sort of ball, flatted on each side. In this condi-
tion it remains till it's fears have entirely subsided; and it is thus often tossed about at the pleasure of other animals, with little appearance of either life or motion. Whenever the Indians catch it, which is always in this form, they drag the poor animal close to the fire, and thus compel it to expand itself, and submit to fate.

Before the discovery of America, the Armadillo was entirely unknown; nor does the old world appear to contain a single species of this extraordinary animal.

The different species are extremely similar in their manner of life. They are a peaceful and inoffensive race; except, indeed, that when they find their way into gardens, they destroy the choicest fruits and vegetable productions. Though natives of the warmest parts of America, they bear the severity of colder climates without any apparent injury ; and are often exhibited in England, among our collections of wild beasts. Their motion secms to be a quick walk; but they can neither run, leap, nor climb up trees: so that, if
they are once found in an open place, they have no possible means of escaping. In this extremity, they commonly make towards theit holes as fast as possible; or, that being found impracticable, they dig a new hole before the enemy arrives. A few moments suffice for this business, as they burrow with all the cxpedition of a mole: being furnished with very large, strong, and crooked claws, usually four on each foot. They are sometimes caught by the tail, while making their way into the earth; but so difficult is it to draw them back, that they readily leave their tail in the hand if any great force be exerted. The Indians, sensible of this, seldom pull them violently; but, in general, one holds the tail, while another digs the surrounding earth, and thus they contrive to take the animal alive. The instant it perceives itself in the power of it's enemy, it rolls itself up, and patiently awaits whatever torture the captor chuses to inflict.

The flesh, especially of the smaller species, when young, is said to be very delicious food, so that we may naturally suppose these animals find little mercy. 'They are, indeed,
SIX-BANDED ARMADILLO.
pursued with unceasing industry ; and, though they ofter burrow very deep, the Indians contrive to force them from their subtertanean retreats; either by filling the holes with smoke, or with water. A small species of dogs are also purposely trained to the discovery and persecution of these animals; by which, when at any distance from their burrows, they are speedily overtaken. It is in vain that the animal rolls itself up; for the hunter is at hand, and soon seizes his prey. When, however, they happen to be near a precipice, they often effect their escape; as they can, when rolled up, devolve from rock to rock, without the smallest degree of danger.

The smaller species are very frequentity caught in snares placed by the sides of rivers, and in low moist grounds, which these mose frequent; while the laser species chiefly re--ide in dry situations, and at a distance from the sea. As they never ventere far from their retreats, and seldom quit them at all till night, it requires some skill and persererance to intercept them in their way.

Almost every species of the Armadillo turn up the ground, like the hog, in search of potatoes, and other roots, which constitute a principal part of their food. They live also on melons, and other succulent vegetables; and will eat flesh, whenever they can procure it. They prey on worms, small fish, and water insects; and, when they can catch them, even on birds.

Though all roll themselves up into balls, those which are furnished with the smallest number of bands find the greatest difficulty in doing this compleatly.

The rattle-snake frequently takes up it's residence in the burrows of the Armadillo; from which circumstance, these animals have been supposed to live in peculiar amity. But the fact seems to be, that neither is qualified to injure the other; and thus they comtinue together, because neither chuses to quit a convenient abode. The Armadillo brecds monthly, and produces four at a birth. The shell, in powder, is not only esteemed sudorific; but said, also, to constitute a potent remedy for the lues venerea.

The Six Banded Armadillo, or Encoubert of Buffon, which is the animal we have figured, inhabits Brasil and Guiana. It is one of the larger species; and has the shelly covering composed of large angular pieces, elegantly disposed. The shell of the head is large, and in one piece to the moveable streak of the neck; the shells on the shoulders, and on the rump, are also in single angular pieces. The head and snout are like those of a pig; the eyes are small and hollow; the tongue is narfow and sharp; and the ears, which are short and naked, are of . brown colour, like the skin of the joints. There are cighteen teeth of moderate length in each jaw ; and five long toes of a roundish form, but rather narrow, on each foot. The tail is large in it's orgin, but gradually diminishes towards the extremity, where it is very slender, though sound at the end. Between the six bands in the back, as well as on the neck and belly, are a few scattered hairs. The colour of the body is reddish and yellow, and the animal is commonly thick and fat. It drinks often, and feeds on fruits, roots, and even birds.





## BLUE AND YELLOW MACAW.

THIS grand and beautiful bird, the Psittacus, Ararauna of Linnæus, is by Buffon called the blue Ara, and by Edwards, and other English naturalists, the Blue and Yellow Macaw.

Buffon says, it is easy to describe this bird: the upper side of the body, the wings, and the tail, are entirely azure, and the under side is a fine yellow. This yellow is rich and vivid, and the blue is glossy and sparkling. The Indians admire them greatly, and celebrate their beauty in songs ; the usual burden of which is"Canidé Jouve, Canidé Jouve, heura oncèbe." Yellow Bird, Yellow Bird, how charming !

We are of opinion, that Buffon had better have called it, like these Indians, the Yellow, than the Blue Ara, or Macaw, if he was averse to taking both predominating colours; since the Red Macaw has also a predominating Blue, and is called the Red and Blue Macair, by Edwards and other maturalists.

According

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BLUE AND YELLOW MACAW.
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According to Buffon, the two descriptions never mingle, though they frequent the same spots, and live in harmony; notwithstanding this, he says that they are of the same species, and inhabit the same parts of South America. Their voices are somewhat different, for the Indians can distinguish them by the cry alone; it is said, that the Blue and Yellow Macaw docs not pronounce the word Ara so distinctly as the Red and Blue.

Edwards says, that this bird is the Araracanga of the Brasilians; and, that it is more rare than the Red Macaw. They are, however, prodigiously alike in every thing but their plumage. Albin, he observes, has given a very imperfect figure of this bird, and erroneously calls it the hen Macaw, supposing it to be tha hen of the Scarlet and Blue Macaw, which i a somewhat larger bird.

They are the largest of the Parrot kind; and frequently a yard in length, from the tip of the bill, to the extremity of the tail, which is always very long.




## EMPEROR MOTH,

## OF NEW SOUTH WALES.

THIS grand and beautiful Moth is a native of New South Wales; and, though certainly very superior in magnitude, as well as in it's general hues, and different in several other respects, from the English Emperor Moth, it gave us, at first glance, in consequence of the not very dissimilar largest eye-like spots on the superior wings, so much idea of that insect, that we have been induced to describe it under the appellation of the Emperor Moth of New South Wales. We confess, however, that we were not a little tempted, by the singular appearance of the horn, or proboscis, circularly curved like the horn of a ram, but springing from the nose like that of a rhinoceros, to have given it a name expressive of these distinguishing characters: but, we must also acknowledge, we found it difficult to unite the two semblances under one general denomination ; and, therefore, have contented oursclves with the first more simple idea.

This

This Moth is delineated of it's exact natural size. The general colour is richly incarnate; the underwings being somewhat dusky. There are eye-like spots, of different sizes, both on the upper and under wings; those on the lower being very considerably the least. These spots are of a dark or dusky brown. The abdomen, which is annulated is cloathed with long dark hair, longest and darkest towards the shoulders. On the belly is a large oblong or oval spot, of a reddish flesh-colour.

We have no information respecting the appearance of this elegant Moth, either in it's caterpillar or chrysalis state: a deficiency which there is too often reason to lament, in the descriptions of foreign insects.

## NATURALIST's POCKET

MAGAZINE;

OR,
COMPLEAT CABINET OF NATURE.
Ne XXVII.
CONTAINING,
». The PIED SEAL.
2. THE NORTH AMERICAN ASH-COLOURED HERON.
3. The HORNED FISH.

COLOURED AFTER NATURE. wITH

DESCRIPTIONS.


## PIED SEAL.

THE Seal, or Phoca Vitulina of Linnæus, is a genus of pinnated quadrupeds: viz. quadrupeds having fin-like feet; fore legs buried deep in the skin; and hind legs pointing quite backwards. Of the Seal tribe, there are num merous species; their generical character being, that they have cutting teeth, with two canine teeth in each jaw ; five palmated toes on each foot; and a body thick at the shoulders, but tapering towards the tail.

The ancients were acquainted with the Seal, under the name of Phoca; iand Aristotle properly describes it to be of an ambiguous nature, intermediate between aquatic and terrestrial animals. Ail, however, that the ancients have written about the Phoca, Buffon is of opinion, must be referred to the Small Black Seal of India and the Levant. Aristotle could not have had any knowledge of the Great Seal of the Frozen Sca ; because, in his time,
time, all the north of Europe and Asia was unknown.

Buffon observes, that the Seal is formed on the model of the Tritons, Syrens, and other Sea Deities of the Poets; who fabled them with the head of a man, the body of a quadruped, and the tail of a fish. Perhaps, we may safely add that, it is the true and sole foundation of the Mermaid. At least, we find a wonderful coincidence between the fabulous attributes of that supposed animal, and the authenticated accounts of the Seal. 'The appearance of the Mermaid, has always been considered as foreboding a tempest, and the Seal, it is remarked, by Buffon and others, instead of being terrified by thunder and lightning, seems to be delighted on such occasions. It comes ashore in storms; and even quits it's icy abode to avoid the shock of the tempestuous waves. These animals, at such times, sport in great numbers along the shore: the tremendous conflict appears to divert them, and the fall of heavy rains to enliven and refresh them. Pcnnant remarks, that they frol:" greatly in their element, and will sport
without
without fear about ships and boats; which may, he thinks, have given rise to the fable of Sea Nymphs and Syrens; and our fishermen have frequently seen two young Seals sucking their dam at the same time, while she stood in a perpendicular position amidst the waves. Even the comb, with which painters have depicted the Mermaid, may be accounted for, without any very extravagant stretch of the imagination : by supposing, that these rivals of the poets in their love of the marvellous, having heard that one species of the Seal has a large comb; placed an artificial weapon of that name in the hand of their Mermaid, instead of the comb-like excrescence, about five or six inches long, hanging from the end of the upper jaw of the male Sea Lion, as described by Dr. Parsons in the Philosophical Transacions.

Dampier says, that Seals are seen by thousands on the Island of Juan Fernandex, where the young bleat like lambs: but that none are found in the South Sea, nerth of the Equator, till latitude 21 ; nor did he ever see them in any part of the West Indies, excopt the Ray
of Campeachy, or any where at all in the East Indies.

They are found in greatest multitudes towards the North and the Sonth: swarming near the Arctic circie, and the lower parts of South America, in both oceans; as well as near the southern end of Terra dei Fuego, and even among the floating ice as low as South Latitude 60. 21. They also inhabit the Caspian Sea; the Lake Aral; and the Lakes Baikal and Oron, which are fresh waters. In these last, they are of smaller size than those which frequent salt waters; but they as: so fat, as to seem almost shaneless. In Lako Baikal, some are cosered with silvery hairs; while others are rellowish, and have a large dark-colomed mark on the hind part of the back, covering atmose a thina part of the bou'. Those of the Caspans So, where ther absobetuly swam, wary prowisiously in their cohours: some are wholly white, others entirely Hack; some of a yellowish white, some mousecotored, and some spottod like a leopard. They croep on shore, and are killed by the hamate of fase as they lend, yep are iollowed

## PIED SEAL.

by a vast succession of others, which all meet the same fate. It seems singular, that the Seals of the Caspian Sca are said to be very tenacious of life; when it is a well known fact, that almost the smallest blow on the nose kills those of Europe. Perhaps, however, this effect may be unknown to the inhabitants of those parts. At the approach of winter, they go up the Jaik, and are killed in prodigious numbers on the ice. Many are destroyed by the wolves and jackals; but the Seal hunters, who seek them chiefly for their skins and oil, watch carefully the haunts of the Seals, to drive away their four-footed encmies.

The female brings forth in autumn; usually two young at a time, and never more thais three or four. She suckles them sitting on her hind legs, in caverns, or in rocks, the first sim or seven weeks, after which they take to the seas.

Pennant says, that the Seal cannot continue long under water: but frequently rises to take breath, and is often seen floating on the waves: and we are of opinion, that Botfon, and other saturaliscs,
naturalists, are quite mistaken, when they assert that the foramen ovale of the Seal is compleatly open, and that the animal can therefore exist without respiration.

The Seal sleeps, in summer, on a rock or bank of Sand; and, when alarmed, precipitates into the sea. If it happens to be too distant, it scrambles along, violertly flinging up the sand and gravel with ir's hind feet, and uttering most lamentable moanings: on being overtaken, however, it makes a vigorous defence with it's feet and teeth.

The young Seal, which is for some short space white and woolly, is particularly docile; distinguishing it's mother's voice, and paring her great obedience. 'The Seal, in fact, seems susceptible of education; and has been actuaily taught to salute persons with it's lips as well as it's voice, obey is's kecper, and give many uther proofs of intelligence. It's brain is larger in proportion than that of man; and, in sagacity, it exceeds most other quadrupeds: this is manifested hy it's clocility, and social qualities; it's strong sexual instinct; and it's great attention
to it's young; as well as by it's voice, which is more expressive and more modulated, than in other animals.

The Seal feeds on all sorts of fish, but never goes to any great distance from land: it is frequently eaten by voyagers; but is chiefly hunted for the sake of the oil and skin. A young Seal often yields eight gallons of oil; and the skin is useful for covering trunks, \&zc. as well as making leather of peculiar excellence.

The Pied Seal, represented in the annexed print, and which differs little else than in colour from the common species, was first figured and described by Pennant. It's nose is taper and elongated; it's fore feet are furnished with five toes, very distinct, though inclosed in a membrane, the claws being long and straight; and the hind feet, which are very broad, have also five distinct toes in a similar membrane, that expands to the form of a crescent, the claws just reaching the margin.

On the first capture of this Pied Seal, which
was taken near Chester, in May 1766, it's skin was naked, like that of a porpoise; only the head, and a small part beneath each leg, being then hairy. Before it died, Mr. Pennant says, the hair began to grow on other parts. The fore-part of the head was black; the hind part of the head, as well as the throat, was white; beneath each fore leg was also a white spot; the hind feet were of a dirty white; and ail the rest of the animal was intensely black.
" I believe," says Mr. Pennant, " the Pied Sals vary in the disposition of their colours: that given by M. De Buffon had only the beliy white. These species, according to that great writer, frequent the coast of the 1 driatic. The lengtin of that described by M. De Buffon was seven feet and a half: that which I saw was very much less; and, probably, a young one."

Seais are said, by Dr. Borlase, to be seen in greatest plenty, on the coast of Cornwall, is May, Juise, and July ; some as large as a cow of muderate size, and others not bigger than a small calf.





## NORTH AMERICAN ASHCOLOURED HERON.

FOR the description of this elegant bird, little more will be necessary, than an almost literal transcript of the account given by our minute and accurate English naturalist, Mr. George Edwards, which accompanied his original very beautiful figure.

This bird; Edwards tells us, differs from onet Common Heron, in being somewhat bigger. and of a brown or ash-colour on it's back: as well as in having no white feathers on it's forehead, or black spots on it's sides below the bottom of the neck.

Some of it's measurements are as follow: from the point of the bill, to the angle of the mouth, is full six inches; each wing, when closed, is eighteen inches long; the leg-bone, from the knee to the foot, is six inches and it half; the middle toe, to the end of the mail or claw $_{2}$ is five inches and a quarter; and the lere
are bare of feathers three inches above the knees.

The bill is straight, sharp-pointed, and toothed in both upper and under mandible towards the point. The upper mandible is channelled, and of a blackish colour ; the nostrils being placed in the channels, and pretty near the head: and, between the nostrils and the eye, the skin, which is woid of feathers, is of a greenish yellow colour. The lower mandible is yellow, or orange-coloured. Ths eves are placed over the angles of the mouth. Long black feathers wholly cover the top of the head; forming a crest of seven or eight inches long, if measured from the base of the bill backward: the sides and under part of the head are white. The neck is covered with long slender feathers of a brownish colour, barred transversely with dusky on the hinderpart. The feathers on the fore-part of the neck have broad white dashes down their middle; being black on each side, with reddish brown edges, which makes an agreeable variation. The back, and upper side of the wings and tail, are of a brownish ash-colour: the covert feathers

NORTH AMERICAN ASH-COLOURED HERON.
feathers of the wings are lighter; and the quill feathers of the wings, and the tail-feathers, are darker. The skin which connects the joints of the wing in it's upper part, is covered, both on the upper and under sides, with small dusky feathers having reddish tips. The inner coverts of the wings, and the sides under them, are of a blueish ash-colour. The breast is white; spotted with largish black spots, having a slight intermixture of reddish brown. The lower belly, and covert feathers under the tail, are white. The back is covered with ashcoloured down, which is hid by the long feathers springing from the shoulders. The upper parts of the thighs are of a reddish brown; the knees, and the bare spaces above them, are covered with yellow scales; and the legs, from the knees downwards, as well as the feet, have scales of a black or dusky colour. The claws are black, the middle ones being pectinated; and the outer toe is for a little way united by a web to the middle toe. The toes, especially the back toe of each foot, are much longer, in proportion to the legs, than in the crane kind.
"This
" This bird," Edwards adds, " was brought well preserved from Hudson's Bay. I cannot," says he, " discover any description agreeing with the above, so shall pronounce it a non-descript. This is one of the biggest of the Heron-kind; but Mr. Catesby has described one of North America, seemingly to me much larger. He has given a figure of the head only as big as the life: he makes the bill measure, from the point to the angles of the mouth, seven inches and three quarters: and, if the other parts bear proportion with the measures of the above-described, it must be much bigger than mine." See Catesby's large Crested Heron, in the Appendix to his Natural History of Curolina, \&xc.




## HORNED FISH.

THE very curious fish represented in the annexed figure, was originally brought from Madagascar, where it is by no means uncommon.

Willughby, in his book, De Piscibus, has given a print similar in it's general form, but of a quite different surface, irregularly spotted; and he calls it, Pisciculus Cornutus, or the Little Horned Fish.

The species are said to be numerous; and, therefore, it seems evident that Willughby's fish, if not a variety in the species which we are to describe, was at least of the same genus.

To this, indeed, the epithet Little might not be ill applied; since the object from which it was originally taken did not exceed six inches and a half in length, including both the horns and the tail.

This Horned Fish; or Pisciculus-Cornutus, for the figure of which we are indebted to Edwards, is of a squarish figure; the back being the narrowest part, and the belly the widest. A thick and strong horny case, which is fixed, and not in the smallest degree pliable, covers the entire body; it's surface being divided by lines into sexangular parts, with a sort of asterism, or star-like figure, marked in the centre of each. The body is wholly of a dusky colour ; but the irides are of an orange red. The mouth is small, and the teeth are long and slender.

The Horns, which give name to this fish, are four in number: two springing forwards, from above the eyes; and the other two, which spring from the plane of the belly, extending backwards towards the tail. These horns are of the same dusky hue as the lighter parts of the body.

On each side of the body, there is a fin; and there is also one on the hinder part of the back, and another on the belly behind the vent. The tail has likewise a fin, which is remarka-
bly long. All these fins, which pass through holes in the horny coat or covering of the fish, have full play; so that the fins and tail are as loose and pliable as those of any other fish.

Edwards, who opened this fish, informs us that he found in it no spinal bone, as in other fishes; nor, indeed, any other bone whatever: but, instead of them, some cartilaginous substances communicating with the fins and tail, in order to give them motion.

These Horned Fish are not peculiar to the oriental seas, being frequently seen in our West-India islands. 'lo us it appears, from their peculiar corneous covering, which makes them as well the Horny as the Horned Fish, that this tribe form a link nearly approaching that of the crustaceous or shelly inhabitants of the ocean, in the great chain which seems to bind universal nature.


## THE

NATURALIST's POCKET

> MAGAZINE;

OR,
COMPLEAT CABINET OF NATURE.
No XXViil.
CONTAINING,
$\therefore$ The WOLF。
The SMALLEST HUMMING-BIRD.
The WHISTLE INSECT.

COLOURED AFTER NATURE.<br>WITH<br>DESCRIPTIONS.




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## WOLF.

THE Wolf, or Canis Lupus of Linnæus, is an animal of universal dread and detestation, wherever it inhabits. The Greeks called it, auros; and the Romans, Lupus. In Italian, it is Lupo ; in Spanish, Lobo ; in German, Wolff; in_Swedish, Ulf; in Polish, Wilk; and in French, Loup.

Though dogs often far more resemble the Wolf, than each other; and are so internally alike, that scarcely any difference can be perceived by the most ingenious anatomist; which considerations have induced naturalists of the highest celebrity to regard the WTolf as the dog in it's original state of savage freedom: that opinion appears, at present, to be doubtful; notwithstanding Linnæus, Pemant, and others, have classed them in the same genus with the Dog. The natural antipathy which the two animals bear to each other; the longer time which the Wolf gocs with young, being a hundred days, while the Dog only
only goes sixty ; the Wolf living twenty years, and the Dog but fifteen: are considered, by Buffon, and others, as forming a distinction, and drawing a line, which must for ever keep them asunder. Catesby, however, declares that they intermix ; and that tamed Wolves were the only original Dogs of America.

The Wolf, from the tip of the nose to the insertion of the tail, is commonly about three feet seven inches long, and about two feet five inches high; while our great breed of mastiffs seldom exceed three feet by two. It's hair, in general, is a union of black, brown, and grey, extremely rough and hard, but mixed towards the roots with a sort of fur of an ash-colour.

Pennant says, that it has " a long head; pointed nose; cars crect and sharp; tail bushy, bending down, and the tip black; long legged; lair pretty long; teeth large; head and neck cinereous; body generally pale brown, tinged with vellow; sometimes white; sometimes black ; and taller than a large greyhound."
lin comparing the Wolf with any of our

> Dogs-

Dogs-the great Dane ormongrel Greyhound, for instance-it will appear to have the legs shorter, the head larger, the muzzle thicker, the eyes smaller and more separated from each other, and the ears shorter and feraighter. It seems in every respect stronger than the Dog; and the superior length of the hair aids this appearance. 'The visage of the Wolf is most distinguished from that of the Dog, by the eye; which opens slantingly upwards, in the same direction with the nose, while that of the Dog opens more at right angles with the nose, as in man. The colour of the eyeballs; which are of a fiery green, give a fierce and formidable air to the Wolf's aspect.

The Wolf possesses strength, speed, agility, and cunning, to obtain largely the animal food on which it preys; yet, in spite of these advantages, it is said frequently to perish for want of sufficient provision. The terror of the homan race, and destructive to domestic animals, man has every where set a price on it's heads and, stimulated by gain, what hope can reasonably be entertained, that any uning will long escape the perseveriog stratagems of
human cupidity ? Compelled to hide in forests, where the few animals found naturally exert all their powers to elude the voracious destrover, it finds it's food but little proportioned to it's rapacity. Dull, and pusillanimous, as it is by nature, being often reduced to the verge of famine, want renders it ingenious, and necessity inspires it with courage. Pressed by hunger, it ventures to attack those animals which are under the protection of man; and readily carries off sheep, lambs, or small dogs. Succeeding in a first excursion, it frequently returns; till, wounded or hard pressed, by the shepherds or their dogs, it conceals itself all day in the thickest coverts, and now ventures out only at night. Then, indeed, it scours the country ; peering round the villages, and carrying off whatever animals it finds unprotected. It attacks sheepfolds; and even scratches up, and undermines, the thresholds of doors where sheep are housed; when, entering furiously, it kills the whole flock before it begins to carry off a single carcase. With a whole sheep in it's mouth, however, it can outrun the shepherd. Should these sallies be unattended with success, it returns to the forest: there
it searches about with avidity; and, fullowing the track of wild beasts, ardently pursues them, in the hope that they will be stopped and seized by some other Wolf, with whom it may share the spoil. At length, becoming famished in the highest degree, it loses all idea of fear; attacks women, children, and even men; becomes maddened by excessive agitation; rages with unbridled fury; and falls a victim to distraction.

Such is the account given by Buffon, of the progress of insatiable hunger in this voracious and terrific animal.

Comparing it with the Dog, he admits that they appear formed on one model ; but says, that the Wolf exhibits beneath a mask the character of the Dog. The figure is similar, but the result is compleatly opposite. Their natural dispositions are so much at variance, that they seem repugnant by nature, and inimical by instinct. A young dog trembles at the first glance of a Wolf: the scent, though unknown, excites such aversion, that the little animal runs quivering to it's master's feet. A
strong dog bristles up at the sight; and testifies it's animosity by an instantaneous attack. They never meet without either flying or fighting, and the combat is only concluded by death. If the Wolf conquers, it tears and devours it's prey: the dog, more generous, is contented with remaining victor; seems to think, "that the body of a dead enemy does not smell well;" and leaves the carcase for birds or beafts of prey. The Wolves, indeed, devour each other; and, when one is much wounded, those which discover it's blood, follow the track, and dispatch the unfortunate animal.

The young Wolf may be tamed; but, Buffon say̌, it feels no attachment, resumes it's ferocious character with age, and returns to it's savage state the first convenient opportunity. It is an unsocial animal, and usually shuns even it's own species. During hard weathers however, Wolves assemble in vast troops, and make dreadful howlings. Horses generally defend themselves against their attacks, but all weaker anmals become their prey. 'They are wonderfully suspicious, and sally forth with
great caution. Throughout France, according to Pennant, the peasants are obliged nightly to house their flocks. They destroy Wolves by dogs, pit-falls, traps, or poison; and, when one is killed, the head is carried through the villages, and a small reward collected from the inhabitants. The hunters clothe their dogs, and guard their necks with spiked collars, to preserve them from the terribly large and sharp teeth of these animals.

The Wolf inhabits the Continents of Europe, Asia, and America; including Kamtschatka, and even as high as the Arctic Circle. It is unknown in Africa; notwithstanding what is said by M. Adanson, and other naturalists, particularly among the French, who have mis. taken it for the hyæna.

This destructive animal once greatly infested England; till King Ldgar, by commuting the punishment of certain crimes into the acceptance of a number of Wolves tongues from each criminal, soon diminished the breed. It was not, however, quite extirpated: for, some centuries after, Wolves had again increased

## WOLF.

increased to such a degree as to become the object of rowal attention; and, accordingly, Fdward I. issued out his mandate to Peter Corbet, to superintend, and assist in, their compleat destruction. From England and Wales they are supposed to have been extirpated about five hundred years; and the last Wolf known to have been killed in any part of the island of Great Britain, was destroved in 1630, by the famous Sir Ewen Cameron, in Scotland, according to the tradition of that country.

Buffon, however, with more of nationality than might have been expected from a man of such enlarged rescarch, appears unwilling to admit that Great Britain has yet been able io free herself from these ravenous and fierce animals, which still continue to baffle all the force and dexterity of France: and pertinaciously, though ingeniously, maintains a belief, or would at least lead others to believe, in their present existence, even while he feels it necessary to acknowledge, that he has never asserted it as a positive fact.
*Some
"' Some English authors," says he, "who treat of British Zoology, have reproached me for maintaining, that Wolves still exist in the northern parts of their island. I never did affirm this as a fact; but only said-"' I twas assured, that Wolves still existed in Scotland." Lord Morton, then President of the Royal Society, a Scotsman worthy of the greatest credit and respect, and proprietor of large territories in that country, assured me of this fact in the year 1756. To his testimony I still adhere, because it is positive; and because the assertion of those who deny the fact, amounts to a negative evidence only."

Pennant quotes Buffon's original assertion --" 6 the English pretend to have cleared their island of Wolves; I am assured, however, that they still exist in Scotland:" and, observing that he must have been greatly misinformed, " I have," says Pennant, " travelled into almost every corner of that country; but could not learn that there remained even the memory of those animals among the oldest people." In Ireland, it seems, they continued longer: for one was killed there in 1710 ;

## WOLF.

when the last presentment for killing Wolves, is related, in Sinith's History of Cork, to have been made in that country.

Thesc animals, which the vast forests on the Continent of Europe will probably always preserve, except pressed by extreme hunger, commonly fly from man; but, when once they have tasted human blood, they appear to give it the preference: " such," says Pennant, " were the Wolves of the Gevaucan, of which so many strange tales were told. The French peasants call these, Loups Garoux; and suppose them to be possessed with some evil spirit. Such was the Wrore Wulf of the old Saxon.".

When the Wolf is woundel with a bunct, it cries; but, while dispatching with a bludseon, according to Buffon, never complains. It is a pery aldy and suspicious animal, and is saild $e$ avoid cattle ticd by a rope; but, on falling into a smare, such is it's terror, that it may be killed, or taken alive, without resistance. It allows itself to be chained, muzzled, and led about, without exhibiting the smallest rymptom of resentment or discontent.

## WOLF.

The senses of the Wolf are exquisite; particularly it's sense of smelling, which ofters extends farther than it's sight. It stops on thie borders of the forest; smells on all sides; and receives the emanations of living or dead animals brought from a distance by the wind.

The female is followed by troops of males, while in heat, which is about fifteen days, usually at the beginning of winter; and the chief favourite is frequently killed by the rest. When near her time, she prepares a soft bed of moss, and brings forth from five to nine at a birth, which are blind for a few days.

The hair and colour vary with the climate, and sometimes even in the same country. Buffon informs us that, berides the common Wolves, some are'found in Prance and Germany with thicker and more yellow coloured hair; which, tliough wildest, avoill the fooks and habitations of men, and live solely by hunting.

In the Wolf, says this great naturalist, there is nothing valuable but it's skin, which makes a warm and durable fur. It's flesh is so
bad, that it is rejected with abhorrence by all other quadrupeds ; and no animal, but a Woif, will voluntarily eat a Woif. The smell of it's breath is exceedingly offensive: for, to appease it's ravenous appetite, it swallows whatever it can find; putrid flesh, bones, hair, skins half tanned and covered with lime, and even mud. It vomits often; and empties itself more frequently than it fills. In short, the Wolf is consummately disagreea. ble. It's aspect is base and savage, it's voice dreadful, it's odour insupportable, it's disposition perverse, and it's manners are ferccious: it is odious and destruetive, while lining; and, when dead, almost perfectly useless.

Pontoppidan, in his History of Norwar, asserts that Woives were unk nown in that country till the year 1713; when, during the last war with Siseden, the Wolves passed ins mountains, by following the provisions of the army. 'They certainly have been known to follow amiss; and even come in trouns to the field of battle, where bodies are carciessly interred, tearing them up, and devouring them with an insatiable avidity.


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## SMALLEST HUMMING BIRD.

THIS minute bird, is the Trochilus Minimus of Linnæus, Gmelin, and Klein; and the Smallest, or Least, Humming Bird, of Sir Hans Sloane, Edwards, and Latham. Brisson calls it, Mellisuga: and Buffon, who divides Humming Birds into Fly Birds and Colibri, names this the Smallest Fly Bird. Our figure is the exact size of the bird ; which, when dried, weighed no more than five grains. It was brought from Jamaica: and Edwards takes it to be the same species as that mentioned by Sir Hans Sloane, in his History of Jamaica; which weighed, when just killed, only twenty grains.

It is thus described by Edwards-" The bill, and the whole upper side of the head, neck, body, wings, and tail, are of a dirty brown colour; yet, in the sunshine, there is a small gloss of a golden green colour, which strikes not the eye in common lights. The under side of the bead, neck, and the belly, are of a disty white. The outside feathers of the
the tail are aiso wivite. Tile less and foet are上Yajk, A"! this irlbe of birds have a very Ene whe, ot pipe, which they con exteisd co: ci the:r moutins berond the point of the i...1. ; these athes seem to part in two very s:mall ones, at their extremities. With this sipe, tiacy suck the juices out of fiowers."

Dufon sars, it is smaller than some of our flics: all the upper side of the head and body being of a goid green, changing brown, with rojuin reflexions and all the under sides of a White groy. 'like fathers of the wiogs ate lrown, inciming to viciet. In the femaie, the cciours ate not so brizht; she is also smallor than the mate. The kill of tive Fly Bitd is ectually then throughour, simghy swolded at the tio, combessed hosizomally, and straight. 'This last character, Butuon - Jus, Custingustes the lif Dist ircm the Cu-
 Fhey have all six feathers in the tail. Thas amallest species is found in Brazil, and the





## WHISTLE INSECT

THIS beautiful and curious insect was first named, as well as figured, by Edwards. It was brought from Santa Crux, in Barbary; and received it's appellation of the Whistle Insect, from it's nearly agreeing with another insect found in Africa, called the Whistle Beetle, of which the natives make whistles, and wear them about their necks, for the parpose of calling together their cat le.

Edwards, with his usual frankness, acknowledges that he knows not in what tribe or genus to class this insect. He describes it, however, with his customary precision.
" The head," says he, " is made like that of a Locust. The upper body, or thorax, is surrounded with many sharp points; the lower part of the body, or abdomen, is composed of about ten rings, and has two points at it's end. It has six legs, of three joints each: the joints next the body are smooth,
smonth, the middle ones have some small points; the feet, or outer joints, are divided into roundish flat parts, which are pliable; and each foot has two small claws at it's end. The body is black on it's upper side, spotted with orange colour ; the under side is orange colour: the legs, also, are orange colour, but with some black about their joints. The horns are brown."

Were we as anxious to increase names of the same objects in natural history, as we are sincerely desirous to see them diminished, we might, from it's description in Edwards's own words, have given it the new appellation of the Locust Beetle.

The propriety of this idea is particularly obvious, on beliclding a side view of the insoct ; when, from the direction of the horns, as well as the form of the head, added to the clevation of the joints of the hind legs in the action of waiking, it has prodigiously the general appearance of the lucust tribes. It is, notwith tanding, we apprchend, to be considered as of the beetle race.

## THE

## ITURALIST"s POCKET

## MAGAZINE;

OR,

MPLEAT CABINET OF NATURE.

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\begin{aligned}
& \text { No XXIX. } \\
& \text { containing, }
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The MONGOOZ.
The GREAT CROWNED INDIAN PIGEON.
The WALKING LEAF.

COLOURED AFTER NATURE. WITH

DESCRIPTIONS.
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## リロッ゙゚ロロス



## MONGOOZ.

THIS beautiful animal, the Lemur Mongoz of Linnæus, is a species of the Maucauco; and, by Pennant, called the Woolly Maucauco. In Nieuhoff's Voyage, it is denominated the Macassar Fox. Linnæus, Pemnant remarks, confounds this animal with Mr. Edwards's Black Maucauco.

Buffon, who names the genus Makis or Maucaucos, divides them into three species: the Mococo, or Maucauco, commonly known by the name of the Ring-Tailed Maki, or Maucauco ; the Brown Maki, or Mongooz, improperly denominated the Brown, because some are all brown, whilc others have their cheeks black, and their fect yellow; and, lastly, the Vari, by some called the Picd Maki, though some only are Picd, others all Black, and others wholly White. Thesc animals are all of them natives of the eastern regions of Africa; particularly, of Madagascar, where they are very numervos.

> Pentant,

Pennant, who describes itunder the name of the Woolly Maucauco, says that it not only inhabits Madagascar, and the adjacent isles, but is found as far as Celebes and Macassar. It sleeps on trees; turns it's tail over it's head, to protect it from rain; lives on fruits; and is very sportive, good-natured, and tender. "This," he adds, " is the species Somerat calls Maquis a Bourres, but his figure is not by any means accurate."

The Mongooz is described, by Buffon, as smaller than the Ring-Taired Maucauco. It ${ }^{\circ}$ hair is silky, shortish, and somerwat curled. It's nose is larger than that of the RingI'ailed Mancauco, and resembles that of the Vari, or Pied Maki or Maucauco. "I had," says he, "a Mongooz in my possession for ecveral ycars, which was entirely brown; it had yellow eves, a black nose, and short ears. It amused itself with cating it's own tail, and actually destronci the last four or five vertebree. 'This animal was extremelv dirts ; and so troublesome, that we were obitged to chain it. Whonover it coull make it's escape, it Nont into the neighboung shops, to scarch
for fruits, sugar, and sweetmeats, and would readily open the boxes which contained them. It was with difficulty seized; and bit cruelly, even those with whom it was best acquainted. It uttered a low, grunting noise, almost perpetually; and, when tired of being alone, would croak like a frog, so loud as to be heard at a great distance. This Mongooz was a male, and his testicles were extremely large in proportion to the size of his body. He was fond of the slie cats; and even satisficd his desires without any intimate union: his embraces, of course, were ineffectual. He dreaded cold and moisture ; never willingly departed from a fire ; and stood upright to warm limself. He was fed with bread and fruits. llis tongue was rough, like that of a cat: and, when permitted, he licked any person's hand till it was inflamed; generally concluding this operation with a severe bite. The cold of the wintat 1750 , killed this Mongooz, though he nover: quitted his station near the fire. His movements were extremely brisk; and, sometimes, petulant. He often slept during the day; but his slumbers were so light, that the smelles: noise awaked him.
" in this species," adds Buffon, "there are several varieties, both in colour and size: the Mongocz whose history has just been given, was totally brown, and about the size of a common cat. I saw one which, though an adult, was not larger than a fat squirrel. If this small Mongooz had not perfectly resembled the large kind, except in size, it would unquestionably have been a distinct species: but, as we have no evidence that these two animals do not intermix, we must still regard them as the same species, till we acquire some new light as to their history and economy."

Edwards, from whom we have copied our becutif:l figure, with the Basket of Fruit, gives the following account of the Mongooz.
" These animals," sars he. " are brousht from Madagascar, and many of the smailer jslands between that and the East Indies. They seem to the ane remove from the diract Monker. 'The Mongooz is less than a small cat: this was a fcmale.

- The head of this animal is shaped much
like that of a fox, and is wholly covered with hair. The eyes are black; with orangecoloured irides, or circles round the eyes. The hair is black; and joins between the eyes, tending downward in a point toward the nose, which is also black: but there is a space between the eyes and nose purely white, which reaches under the eyes, on the side of the head. 'The upper part of the head, neck, back, tail, and limbs, is of a dark brownish ash-colour; the hair being something woolly. The underside of the body is white. The paws are made like those of monkies, with frat nails; except the second toes of the hirder feet, which have each of them a sharp-pointed claw. All the paws are covered with short hair of a light ash-colour. The tail is long. The hair is pretty thick and soft; and appears to have a mixture of lighter and darker parts all over the body. It's actions were like those of a monkey."

This Mongooz was drawn from life, in 1752; and the lady to whom sire belonged, informed Mr. Edwards, that she fed on fruits, herbs, and almost any thing, ceen living fishes.

She had, likewise, an evident desire to catch the birds in her mistress's cages. "Since I drew the above," adds Edwards, "I have seen others of this genus: one, said to be brought from the East Indies, of the size of a large house cat; having it's face and paws wholly black, ir's eyes like the above-described, and all the rest of the fur of a dark brown." Mr. Edwards concludes with observing, that " he also saw, at St. Bartholomew Fair, London, in 1753 , three or four of these animals, all pretty nearly of the size of house cats, agreeing in their shape one with the other, and differing chiefly in colour. One of them had the tail more bushy than any I had seen, and of a pretty equal thickness it's whole length."

Pemnant also says, that this animal varies; being sometimes found with white or yellow paws, and with a face wholly brown.





## GREAT CROWNED INDIAN PIGEON.

'THiS noble, elegant, and beautiful bird, is the Columba Coronata of Linnæus. Though it's magnitude be equal to that of a common Turkey, it undoubtedly belongs to the family of Pigeons.

The original, from which this bird was first copied by Edwards, was drawn from the life, in India; and is, with many other drawings, brought likewise from India by Governor Loten, deposited in the British Museum.

Governor Loten, it seems, brought several of these Great Crowned Pigeons alive from India; which he presented to the Princess Royal of Great Britain, the Princess Dowager of Orange, \&c. It is a native of the Isle of Banda, where the Dutch call it Kroon Voogel.

The description of this bird can hardly be better given than in Edwards's own words.

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GRFAT CROWNED INDIAN PIGEON゙.
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" The bill is biack; pretty straight; the point of the upper mandible a little overhianging the nethern. From the upper mandible, on each side, pass broad spaces of black, ending in points toward the hinder part of the head. The eyes have red irides, and are placed in the aforesaid black spaces. The head hath a towering crest, or crown, which I suppose to be always erect: it is composed of very delicate feathers, with slender shafts, and fine webs, not having their parts adhering to, but whoily derached from, each ocher. The crest, head, neck, quill-feathers of the wings, tail, and whole under sice, are of a fine lightish blue ash-colour, such as is seen in the lighter parts of some of our Dove-house Piscons. The covert feathers withour-side of the wings, and the miduic of the back, are of a dark reddish brick-colour; which, together, form a kind of sadule across the upper part of the bird. Some of the first row of coverts, above the quills, are white, with tips ef the above red : the remaindicy of the same rew of coverts, next the hack, are ahth-ctaused. The leys and feet, which scom to be made as in Pigeons, are of a whitis? culou", with :puts if red."

Edwards

## GREAT CROWNED INDIAN PIGEON.

Edwards remarks, that Brisson has figured this bird: " and," says he, " I am persuaded it was one of those very birds presented to the Princess of Orange ; for, he concludes his description by saying, it was brought from the Isle of Banda, and presented to the Princess of Orange, who presented it to Mr. Reaumur. Which was," ohserves Edwards, "I suppose, after it was dead; as the colour of the eyes is not given, and the crest seems to be flattened in the carriage, according to his figure; which see, in Brisson's Ornithology, vol.1. tab. vi. fig. 1. p. 278. He calls it, Le Faisan Coronnée des Indes. I do not wonder," says this candid writer, "t that Brisson places it among Pheasants; as he did not see it alive, to judge of it's genus from it's manner of acting. The size of the bird determined him to place it with Pheasants, \&c. But Mr. Loten has assured me, that it is properly a Pigeon; and has all the action and voice of a Pigcon, in it's cooing, courting, and billing, with it's femalc. I must confess, I should never have looked for a Pigeon in so large a bird, without such information."

Buffon says, though this bird is as large as a turkey, it undoubtedly belongs to the genus of the Pigeon. It's bill, it's head, it's neck, the general shape of it's body, it's legs, it's feet, it's nails, it's cooing, it's instincts, it's habits, \&c. all are analogous. "From being deceived by it's size, and never thinking of comparing it with a Pigeon, Brisson," says Buffon, " and afterwards our designer, termed it a Pheasant. The last work of Edwards was not then published; that excellent ornithologiss has since given his opinion on the subject."

This opinion having been already seen by the reader, we need not quote it again from Buffon; who adds, that the Prince of Soubise had recently received, at Paris, fise of these birds alive. "Thev are all," adds Buffon, "so much like each ocher, in size and colour, that it is impossible to distinguish their sex. Besides, they do not lay; and Mauduit, an intelligent naturalist, informs me, that he saw several in Holland, which also did not lay. I remember to have read, in seme voyages, that it is usual, in India, to raise these birds, as we do our pouitry."





## WALKING LEAF.

ThIS curious insect, known by the name of the Walking Lcaf, from it's resemblance in form, as well as in hue, to a dry leaf, is said to be brought from the Spanish West Inlies.

The following description was given by Edwards to accompany his print, which we have exactly copied.
" It is very flat-bodied, of the reddish cow lour of some dry leaves, the wings being a little more yellow: some of them incline to green. I am apt to believe, that they change from green to a reddish brown, according as the leaves of trees change with the seasons of the year, in order the better to deceive birds, \&c. that may feed on them. The hinder legs are perfect; but, I believe, the outer joints of the four other legs were broken off, and I did not care to supply them by conjecture: these were drawn after nature, from the insceis themselves, now preserved in the British Merseum at London."

The suggestion of Edwards, as to the change of this singular insect, with regard to it's hue, is certainly ingenious; but we do not clearly perceive the ground on which he has erected his conjecture. Whether he built it on any thing which he perceived in the thing itself, or on what he had read or been told, we are equally at a loss to guess. Some foundation, he certainly had; but, from the mere inspection of the object, we cannot possibly form the same conclusion. Indeed, we innfess, that it seems to us by no means indispensably necessary to the security of the insect: which, we almost suspect, was the true foundation of Edwards's idea; who well knew, and we also recognize, how very provident nature is constanty found in the requisite preservation of all her offspring. The appearance of a dead leat, however, scattered here and there in a tree, for we do not find that the insect is very common, cannot be ihought so unusual a sighit, as to imply, to the most sagacious bird, the presence of an insect on which it might prev.

We should disuain to caril at any thing advanced
vanced by a character so amiable as Ledwards seems to have been, or a naturalist so able as he certainly was: but such, we are persuaded, was his attachment to 'Truth and Nature, and his desire of seeing them traced to their last retreat by the readiest road; that he would not, were he now living, be displeased to see them successfully explored, though by a path, different, in some particular instances, from what he had himsplf pursued on the like occasions. This, we trust, may serve as a sufficient apolagy for any difference of opinion we should at any time feel it necessary to express respecting the excellent remarks of this very skilful and penetrating observer, whose positive asm sertions no man has ever bcen capable of refuting.
'The idea of Edwards, respecting the legs which seem wanting, appears to us just; the insect, which is of the Cimex or Bug kind, had certainly four, if not six legs. The perfect legs, however, are the fore legs, and not the hinder ones; which, probably, was a mistake of the printer. We have figured, of their natural size, both the upper and under sides of
this very curious insect, that a compleat idea may be formed of so wonderful a production of nature. If, however, we coolly consider the circumstance of colour, we shall find that, in this respect, it is not greatly dissimilar to many of the Bug species, and even those of the commonest kinds. It is the form which gives most singularity to this interesting object.

Dr. Brookes, who is not generally considered as a writer of much authority, gives the following account of this insect; which we shall insert literally, as it would in a great measure confirm the idea of Cdwards respect. ing the change of colour with the season, if it could be safely relied on. But we incline to suspeet, that either Dr. Brookes, who copicd Ldwards's Ggure, has converted the conjecture of that ingenuous naturalist into positive asscrtion; or that, drawing from the same source, what is said in that respect, has adopted it with less reservation than the more cautious, and better discriminating Edwards, judged it prudent to employ on the occasion.
" The Walking Leaf," is an insect brought from
from the Spanish West Indies, and has a very flat body, of a reddish colour, like that of certain dry leaves; that is, at some times of the year, for at first it is green. It is produced from a green egg, as big as a coriander seed; from which, in a few days, proceeds a little black insect like an ant when just hatched. The wings are at first like a green leaf, and have fibres run along them, from the inward edges to the outward, much like those of many leaves, and they branch into subdivisions as they come nearer the edge. On the fore part of the body are four other small wings; which, though they differ among themselves, each pair being of a different shape, yet they exactly resemble sone sort of leaves. The larger wings being shut, it exactly resembles a leaf, which has been the reason why it is called the Walking Leaf. The eyes are small, and prominent, and the mouth is forked; the head is round, and about the neck there is the resemblance of a ring, of the same colour with the bodv. Behind this the neck enlarges again, insomuch that it looks almost like another head, but larger. It is
above three inches long, and an inch and half broad."

To this we shall, for the present, only add, that the Cimex Paradoxus, since discovered by Dr. Sparmann, at the Cape of Good Hope, is evidently a species of the Walking Leaf; but so differing from this of Edwards in it's form, which is also perfect, that we shall take a future opportunity of presenting the figure, with what Dr. Sparmann has said on the subject, who does not appear to have been acquainted with our Wralking Leaf. In the mean time, it may not be improper to remark that, though discovered while retreating from the intolerable heat of the sun, it appeared like " a little withored, pale, crumpled leaf, eaten, as it were, by caterpillars."

The Editors of the Encycloprdia Britannica mention this, as the discovers of a new and very peculiar species of the Bug, by Dr. Sparmann: appeating, also, to be unapprized of the Walking I eaf, notwithstanding it has been so generally known for more than half a century.

## NATURALIST's POCKET

MAGAZINE;

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## COMPLEAT CABINET OF NATURE.

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\begin{aligned}
& N^{\circ} \text { XXX. } \\
& \text { containing, }
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1. The GILT-TAILED DORMOUSE。
2. The HORNED DOBCHICK.
3. The ARBUTUS; or, STRAWRERRYTREX,

COLOURED AFTER NATURE.
with
DESCRIPTIONS.
$\therefore x$

(GATT-TARLEA) DOHMOESH.

## GILT-TAILED DORMOUSE.

The Dormouse is a distinct tribe, or genus, of animals, of an intermediate class, between the Squirrel and the Rat or Mouse. They are characterized, by having two cutting teeth in each jaw; four toes on their fore feet, and five on their hind feet ; thin naked ears ; and a long tail covered with hair. Though there are but eight or nine known species, or varieties, in all; some of them are denominated, by naturalists, after the squirrel affinity, and others after that of the mouse.

Buffon, who treats of these animals much too generally, comprehends them all under the class of what he calls Fat Squirrels. "We have," says he, " three species of this animal; the Fat Squirrel, the Garden Squirrel, and the Dormouse; which, like the Marmot, slcep during the winter. Of these, the Fat Squirrel is the largest, and the Dormouse the least. Scveral authors have confounded these three opecies, though they are easily distinguishable.

The Eat Squirrel is about the size of the common squirrel, and has it's tail covered with long hair ; the Garden Squirrel is not so large as a rat, and has very short hair on it's tail, except near the extremity, where it is bushy; and the Dormouse is not larger than the common mouse, the hair on it's tail being longer than that of the Garden Squirrel, but shorter than that of the Fat Squirrel, and it's tip is bushy. The Garden Squirrel differs from the other two, by having black spots near it's eyes; and the Dormouse, by having whitish hair on it's back. All the three are white, or whitish, on the throat and belly: but the Garden Squirrel is of a fine white ; the Fat Squirrel only whitish; and the Dormouse rather yellowish, than white, in all the under parts of the body."

These animals, he is of opinion, are improperly said to sleep during winter; hecause it is bot a natural sleep, but a torpor, or numbness of the scnses and members, produced by a chillness of the blood. "The internal heat of these creatures," says this philusophical naturalist, " excceds not that of the air.

When the heat of the air is ten degrees above the freezing point, their temperature is precisely the same. I have plunged the ball of a thermometer into the bodies of several living Garden Squirrels, and found their internal heat to be always nearly equal to the tempe.. rature of the air. I have even seen the thermometer sink a degree, or half a degree, when applied to the heart ; the temperature of the air being at that time only 11 degrees: now, we know, that the heat of man, and of most quadrupeds, is always more than 30 degrees. It is not, therefore, surprising, that these animals, in which the heat is so inconsiderable, should fall into a benumbed state, whenever their internal heat is not augmented by that of the external air; and this constantly happens, when the thermometer exceeds not 10 or 11 degrecs above the freezing point. This is the true cause of the torpid state of what are called the sleeping animals; a cause which, though common to all animals that sleep duriing winter, has hitherto been overlooked. I have discovered it in the three animals under consideration; in the Hedgehors; and in the Bats: and, though I have never had an opportunity
of examining the Marmot, I am persuaded that it's blood, like that of the other sleepers, is cold; because it is subject to torpor during the winter. This torpid state continues as long as the causes by which it is produced, and ceases with the cold. A few degrees of heat above 10 or 11 , is sufficient to reanimate them: and, if kept in a warm place during the winter, they are never benumbed; but go about, and eat and sleep, from time to time, like other animals. When they feel cold, they roll themselves up in the form of a ball; in order to expose less surface to the air, and to preserve their natural warmoth. It is in this form that they are found, during the winter, in hollow trees, and in holes of walls exposed to the south. There they lay, without the smallest motion, on moss and leaves; and, though even tossed about, neither extend themselves, nor cxhibit any signs of life. From this state nothing can rouse them but the application of a gentle and gradual heat; for they die, when suddenly brought near a fire. Though, in this state, they have no motion; though their oges are shut, and they seem to be deprived of crery sensation; they are susceptible of acute pain.
pain. A wound, or a burn, makes them contract, or shrink, as well as utter a low cry, which they even several times repeat. Hence, it is evident, that their internal sensibility still exists, as well as the action of the heart and lungs. It is, however, to be presumed, that these vital motions act not with so much force as when the animal is in it's ordinary state. The circulation, it is probable, proceeds in the large vessels only; the respiration is slow and feeble; the secretions are inconsiderable; and no excrements are voided. There must, likewise, be little or no perspiration: since they pass several months without eating.; which could not happen, if they lost as much of their substance by perspiration, as they do at other times, when they have an opportunity of repairing this natural waste by taking nourishment. Still, however, they lose some part; being found, during long winters, to die in their holes: but, perhaps, it is not so much the duration, as the rigour, of the cold, which destroys them; for, when exposed to a strong frost, they soon die. I am induced to think, that they do not perish through loss of substance; because, in autumm, they are exceed- 1
GILT-TAILED DORMOU゙SE.
ingly fat, and they are equally so when they revive in the spring. This quantity of fat serves for an internal nourishment to the animal, and supplies what it loses by respiration. As cold is the sole cause of their torpor, and as they only fall into this state when the temperature of the air is below 10 or 11 degrees, they frequently revive during the winter; for, in this season, there are often many davs when the liquor in the thermometer stands at 12, 13, 14, and even at higher degrees: and, as long as fine weather of this sort continues, the Dormice come out of their holes, 10 search for food, or eat their autumnal hoard. Aristotle, and all succeeding naturalists, have asserted, that Dormice pass the whole winter without eating; that, in this season of abstinence, they grow very fat; and, that ther are better nourished by sleep alone, than other animals be food. This notion is both absurd and impossible. The Dormouse, which sleeps four or five months, can only fatten by the air it respires. Supposing a part of this air to be converted into nowrishment, an augmentation so considerable could never be the result. It would not even be sufficient to repair the con-
GILT-TAILED DORMOUSE.
tinual waste occasioned by perspiration. Aristotle might be led into this error by the mild winters of Greece; where the Dormice sleep not perpetually, but often revive, take plenty of food, and are consequently extremely fat, though in a torpid state. The truth is, they are fat at all times; and, particularly, in summer and autumn. Their flesh resembles that of the Guinea Pig. The Romans reckoned Dormice among their most delicate dishes, and accordingly reared them in great numbers. Varro describes the method of making warrens for them; and, from Appicius, we learn the manner of dressing them in the high taste of his times. In this practice, whether from a disgust at these animals because they resemble Rats, or from the badness of their flesh, the Romans have not been followed by other nations. I have been informed, by peasants who had eat them, that they were not better than Water Rats. Besides, the Fat Squirrel is the only species that is eatable ; the flesh of the Garden Squirrel is bad; and has a disagreeable flavour."

For these ingenious and very excellent remarks on the torpidity of animals, every ra-

## GILT-TAILED DORMOUSE.

tional admirer of nature is much indebted to the Count De Buffon: and, though introduced under his description of the Fat Squirrel, or Sciurus Glis of Linnæus, they will be found applicable to ail the torpid tribes. His Garden Squirrel is the Mus Quercinus of Linnæus ; and his Common Dormouse, or Sleeper, Linnæus's Mus Avellanarius.

The Gilt-Tailed Dormouse, which is tlie animal we have figured, seems to have been but lately noticed. It is a native of Surinam; though Buffon naturally enough supposed, that the Dormouse was not to be found in the warmer climates: a knowledge of this fact might, perhaps, have disturbed his ingenious theory. The length of this beautiful little animal, from tip to tip, is about eleven inches. It has short broad ears, and great whiskers. The face is marked with a gold-coloured line, extending from the nose to the space between the cars. The rest of the head, as well as the whole body, and beginning of the tail, are a purplish chesnut colour. The remaining half of the tail is black; the rest being of a beautiful gold colour. It climbs trees, and lives on fruits.




## HORNED DOBCHICK.

Though the name Dobchick is well known in England, we do not find it used by naturalists in general. Even Goldsmith has never mentioned it; and takes but a very slight and imperfect notice of the Grebe, which is it's most usual denomination with naturalists. Both Willughby, and Edwards, however, are among the few, who use the appellation of Dobchick. Of the Grebe, there are many families: some of which, have the Linnæan name, Colymbus; and others, that of Podiceps. Buffon divides these into Grebes and Chesnuts; the latter comprehending the smaller classes. "We have said," observes this naturalist, " that the Chesnut is much smaller than the other Grebes: we may even add that, except the Stormy Petrel, it is the least of all the swimming birds. It resembles the Petrel also, in being clothed with down instead of feathers; but it's bill, it's feet, and all it's body, are exactly like those of the Grebes: it's colours, too, are nearly the same as those of
the Grebes; but, as it's back is of a chesnut brown, it has been termed the Chesnut. Like the Grebes, the Chesnut wants the power of standing and walking on the ground: it's legs trail and project behind, unable to support it, and it wifh difficulty rises; but, when once it has mounted, it flies to a great distance. It is seen on the rivers the whole winter; at which time it is very fat. Though called the River Grebe, it is seen also on the sea-shore; where it eats shrimps and smelts, as it likewise feeds on young crabs and small fish in fiesh waters."

Buffon enumerates and discrikes ten spocies of the Grobe, and four of the Chesnut: to whith last he amexes, when the mene of a Fifth equcies, the Coote Gictic; Cherving, that nature never procceds hy vorte, but fills up all the intervals, and woncen remate ohjects b: a chain of intermediate proluctims. The Conte Grebe, hitherto unknown, : natad to both genera; it was sent to him iom Coyenne, and is as smali as the Chesmat. As all the upper surface of the boly, howerer is an olive beown, bution has mutions: areded calkers it a Chesnut; and, perhap, incead of
placing it as his fifth species of Chesnut, he should have made it an eleventh of his Grebe.

The plumage of the Grebe, particularly that of the breast, is a fine down, very close and firm, and regularly dispersed, the glistening filaments of which lay on each other, and unite, so as to form a glossy, shining surface, cqually impenetrable by cold or humidity: this clothing, so necessary to the Grebe, which in the severest winter remains constantly in the water, is formed into those well known beautiful silvery white muffs, which possess the soft closeness of down, with the agreeable elasticity of feathers, and the rich lustre of silk.

The Horned Dobchick, or Horned Grebe of Buffon, is the Colymbus Cornutus of Gmelin, the Podiceps Cornutus of Latham, and the Eared or Horned Dobchick of Edwards. It's specific character is, that the head is a glossy green; with a yellow bar at the eye, extended behind like a horn or crest.

There is no appearance of a tail. The thighs are so bound within the stin, that the bird,
bird, when on land, must of necessity walk upright. The legs are bare at the knees, and serrated or jagged behind; being of a blueish ash-colour on their outsides, and inclining to flesh-colour on their insides.

The Horned Grebe is said, by Buffon, to be extensively spread, and known in most parts of Europe. The bird which we have described came from Hudson's Bay; though another, supposed to be the hen, is given by Edwards, who says it was caught near London.
"Fcrnandcz," remarks Buffon, " accurately describes one of these found in Mexico ; and adds, that it is called the Water Hare, but does not assign the reason." The reason to us seems obvious: the Horned Dobchick is as swift in the water as the Hare on land.



AR135TTES


## ARBUTUS; of, STRAWBERRY TREE.

The Arbutus, or Strawberry Tree, is a genus of plants, ranged in the tenth class of Limnæus, being the Decandria Monogynia, from the flowers having ten stamina, and one style. It's generical characters are theseThe flower has a small obtuse permanent empalement, cut into five parts, on which sits the germen. The flower is of one leaf, shaped like a pitcher; and divided at the brim into five parts, which turn backward. It has ten short stamina, which are joined at the bottom to the flower leaf, and crowned with bifid summits. At the bottom of the flower is situated the globular germen, supporting a cylindrical stylc, crowned by a thick blunt stigma. After the flower is past, the germen becomes an. oval or round berry, having five cells, which are filled with hard seeds.

The species of the $\begin{aligned} & \text { ributus are five: viz. }\end{aligned}$ the Arbutus folio serrata, or Common Strawberry Tree, with smooth sawed leayes, ber-
ries full of seeds, and an erect woody stem; the Arbutus folio non serrato, or Oriental Strawberry Tree, called Adrachne; the Arbutus, called Vidus idæa Acadiensis foliis Alaterni, or Bilberry of Arcadia with the Alaternus leaf; the Arbutus, called Vitri idæa foliis oblongis albicantibus, or Bilberry with oblong whitish leaves; and the Arbutus, called ['ia Ursi, or Bearberry.

The first, or common species, is that which we have figured ; and is said, by Miller, " to Nrow naturally in Italy, Spain, and also in Ireland." It has three varieties: one with an oblong flower and oval fruit; another, with a double flower; and a third with a red flower.

The Common Strawberry Tree is in most of the English gardens; to which, in OCtober, November, and great part of December, it is one of the chief ornaments. In these months, the trees flower, and the fruit of the former year at the same time ripens, for the fruit is a whole year growing to perfection. When, therefore, the young blossoms, and the matwre fant appear plentifully on these trees, being
being at a season when most others are stripped of their beauty, the sight is peculiarly pleasing.

The best method of propagating the Arbutus, is from seeds; that by cutting and layers being considered as tedious, uncertain, and producing rather bushes than trees. They should be sown in pots, towards the latter end of February, and plunged into a moderate hotbed; when the plants will appear about April; and, with good management, grow before winter to the height of eight or ten inches, When the trees are three or four feet high, they may be shaken out of the pots, into the open ground where they are to remain; but this must be done in April, that they may take good root before winter.

The Arbutus is tolerably hardy; and seldom hurt, except in extreme hard winters, which often kill the young and tender branches, but seldom destroy the tree. The branches, however, if kept clear of snow, are not unfrequently preserved.

This tree flourishes most in a moist soil ; in

ARBUTUS; OR, STRAWBERRYTREE.
dry ground, it seldom produces much fruit. As the Howers appear in autumn, if the winter prove severe, they are generally destroyed. To obtain fruit, therefore, the trees should be placed in a warm situation; and, when the ground is not naturally moist, there should be a good quantity of loam and rotten neat's dung laid about their roots; besides which, in a dry spring, they must be plentifully watered.

The best time for transplanting, is September, when the blossoms begin to appear ; and, at that season, if it prove dry, and they are kept moist, they will take root very soon. The roots, however, towards the beginning of November, should be well covered with mulch, to keep out the frost.

Though the blossoms, which are of a yellowish white, possess no peculiar beauty; the singular appearance of fruit and flowers ors the same tree, at this unusual seacon, and in a situation also unusual for large scarlet strawberries, which the fruit exactly resembles, render it prodigiously interesting.

## JATURALIST's POCKET

MAGAZINE;
OR,

COMPLEAT CABINET OF NATURE.

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\begin{aligned}
& \text { No XXXI. } \\
& \text { containing, }
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1. The LONG-TAILED PORCUPINE.
2. The Short-TAILED PYE.
3. The Rhinoceros beetle.

COLOURED AFTER NATURE.

WITH
DESCRIPTIONS.
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## LONG:TAILED PORCUPINE.

The Porcupine is the Hystrix of Linnxus; which, in fact, is both the Greek and Latin names of this tribe of quadrupeds. In Arabic, according to Dr. Shaw, it is called Tzurban ; in German, Stachelschwein; in Italian, Porco Spinoso; in Spanish, Puerco Espino; and, in French, Porc-épic.

It is observed, by Buffon, that the name given to the Porcupine in most European lan. guages, leads to the notion that it is a Hog covered with prickles; though it has no resemblance to the Hoy, except in the grunting noise which it utters. Both in figure, and internal structure, it differs from the Hog as much as any other quadruped. Instead of a long head, furnished with long ears, armed with tusks, and terminated by a snout, and cloven feet covered with hoofs; the Porcupine has a short head like the Beaver, two large cutting tecth in each jaw, no tusks or canine teeth, the upper lip divided like that of the Hare,

Hore, rounl Aat ears, and feet armed with ciaws. Instead of a large stomach, with an anpendage shaped like a cowl, which seems to form, in the Hog, the shade between the ruminating and other quadrupeds, the Porcupine has only a simple stomach, and a large cæcum. The parts of generation are not apparent, as in the Boar; and the testicles are concealed in the groin. From these characters, added to the short tail in most of the species, and the long whiskers, we may conclude that the Porcupine makes a nearer approach to the Hare, or the Beaver, than to the Hog. The Hedgetog, which is armed like the Porcupine with pricties, has a greater resemblance to the Hog; for it's muzzle is long, and terminates in a kind of snout. But, adds Buffon, all there rsemblances being slight, and the differences conspicuous, the Porcupine undrestionahly constitutes a particular speries, totally Sistinct from that of the Hedgenos, the Exovor, the Mare, or any other animal to which faney may compare it.

To these remarks or Buffon, it may be objected, howvera, that there is, in the Borcu-
pine, far less affinity to the Beaver, or the Hare, than to the Hedgeliog, or even to the Hog. With respect to the Hedgehog, it is, in our opinion, very nearly allied to the Porcupine, in it's appearance, it's manners, and it's habits; though we mean not to contend, that they are precisely of the sanie species. In the Hog, though resemblances may be traced, by those who incline to seek them, the kindred is so very remote as to render hopeless any family claim:

Of the Porcupine, there are several varieties, and some of them are extremely different from others. The following observations; however, may be considered as applicable to the whole tribe.
" Travellers and naturalists," sars Buefon, " have attributed to the Porcupine the property of darting it's guills to a distance, -and with such force as to inflict dcep wounds: they have likewise said, that the quills, when separated from the body of the anmal, possess the extraordinary power of penctrating, by their own proper exertion, deeper into the

## LONG-TAILED PORCUPINE.

flesh as soon as their points have entered. This last fact is merely imaginary, and the first is as false as the second. The error seems to have originated from this circumstance: the Porcupine, when irritated, erects and mores it's quills; and, as some of them are aitached to the skin by a delicate pedicle only, they readily fall off. We have examined living Porcupines; and, though violently agitated, we never saw them discharge their quills Hke darts. It is not a little surprising, therefore, that the gravest authorss, both ancient and modern, as well as the most sensible traveliers, should join in giving their suffrages to a faishood. Some of them tell us, that they mave themselves been wounded by these darts; otiers affirm, that the quills are discharged with such violence, as to pierce a plank at the distance of several paces. The marvellous aiways augments, and gathers force, in proportion to the number of heads through which it passes: truth, on the contrary, loses in performing the same circuit. Notwithstanding the absolute negativc," concludes Buffon, "which I have stamped on these two fictions, I am persuaded that it will still be repeated,
by a thousand future writers, that the Porcu: pine darts it's quills; and, that these quills, when separated from the animal, penetrate deeper, by their own proper exertion, into the bodies which they have once entered."

From this group of credulous travellers Dr. Shaw is excepted-" Of the many Porcupines," says he, " which I have seen in Africa, I never knew any of them, though very much provoked, that could dart their quills. Their usual method of defence is, to recline themselves on one side; and, on the enemy's near approach, to rise up quickly, and gore him with the erected prickles on the other." Nor does $P$. Vincent Marie by any means assert, that the Porcupine darts it's quills; he only says, that this animal, when it meets with scrpents, against which it carries on a perpetual war, rolls itself up like a ball, concealing it's head and fect, and then rolls on and kills them with it's prickles, without running any risque of being wounded. He adds, what we believe to be true, that in the stomach of the Porcupine different kinds of bezoar are formed. Some of these are only a mass of roots enveloped
veloped with a crust ; others, which are smaller, seem to be composed of pieces of straw and sand; and the smallest kind, which exceed not the size of a nut, appear to be real petrifactions. "We bave no doubt," says Buffon, " as to the truth of these facts; for we found a bezoar of the first kind, o1 an ægagropilus, in the stomach of a Porcupine which was sent to us from Italy."

Our Long-Tailed Porcupine, which is the Hystrix Macroura of Linnæus, has long whiskers; short and naked ears; large bright eyes; and a short thick body, covered with long stiff hairs as sharp as needles, and of different colours, according to the rays of light falling on them. The feet are divided into five toes; that which serves as a thumb tuming backwards, to assist in climbing trecs. The tail is as long as the body, and verr s!ender to the end, which consists of a thick tuft; and the prickles, or spines, are jointed, being thick in the middle, rising one out of another like grains of rice, and having a transparent silvery appearance.

## LONG-TAILED PORCUPINE.

This animal is a native of the isles of the Indian Archipelago, and lives in the forests.

It is the Hystrix Orientalis of Brisson; and the Wild Hedgehog, or Singular Oriental Porcupine, of Seba: which, Buffon says, "he is even tempted to believe," is only the Canada Porcupine, or Edwards's Porcupine from Hudson's Bay. He seems, however, to have doubts: we have none, that he is quite mistaken in this conjecture.

The reader, without the trouble of reference, may wish to see the entire passage from Buffon, on which our so blunt decision is grounded.
"We are," says Buffon, " cven tempted to believe, that the animal described and engraved by Seba, under the name of a singular East India Poroupinc, anid which was afterwards pointed out by Elcin, Erisson, and Linnous, in their mothodical cataloguts, by the characters given by Seba, might be the same with the animal under question. This would not, as formerly remarked, be the only time

## LONG-TAIIED PORCUPINE.

that Scba has exhibited American animals as belonging to the East Indies. We cannot, however," he adds, " be so certain with regard to this animal as we have been with several others. We shall only say, that the resemblances appear to be very great, and the differences but slight; and that, as these animals are little known, the differences may be only individual varicties, or those which distinguish males and femalcs."

Without entering into a minute comparison of what Buffon has here been in the humour to denominate " slight differences;" we shall content ourselves with noticing a single, as we presume, essential distinction: the Canada Porcupine has four toes only on cach of the fore feet, though five on those behind; the LongTailed Porcupine, as above noticed, has five toes on every one of it's iour feet. This, we believe, there are very few naturalists who will consent to admit is at all likely to be any sexual distinction; whatever regard they might, in that respect, be inclined to pay this suggestion, as to the total dissimilarity of the tails, \&ec.
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## SHORT-TALLED PYE.

THIS beautiful bird, which is deposited in the British Museum, was brought by Governor Loten from the island of Ceylon. It is called by Edwards, who first figured it, the Short-Tailed Pye of the East Indies. "Brisson," says Edwards, " has figured and described it, or something very near it: by his saying the rris of the eye is "blanchatre," I suppose the bird was brought alive to him. He calls it, "Merle Verd des Moluques;" that is, the Green Blackbird of the Molucca Islands.
" Albin," Edwards remarks," calls it the Bengal Quail in his description, and the Quail from the Cape of Good Hope on his plate ; though it is nothing of the Quail kind, neither the bill nor feet agreeing at all with birds of that genus. But Albin," adds Edwards, " is so trifling an author, that it is pity any respectable writer on birds should have named him. His books are, mostly, a lame and erroneous transcript of Willughby; and the few
few real discoveries he has made, hard!y take up a twentieth part of his work."

This, though severe on Albin, is not all that Edwards has to say against that naturalist on this occasion. "Albin," observes Edwards, "has figured this bird from a bad drawing done in India, which I have seen at Mr. Dandrige's; though Abin would have the world believe his draught was taken from nature."

That Albin's works are trifling, we agree with lddwards, and have often wondered at the degree of celebrity which they formerly obtained. We would not, however, condemn any author, for an acciuental variance between the description and the plate: and Edwards himself has been rather unformate in this part of his censuri; having made a mistake exactly similar on his own plate of the very same bird.

Buffen makes a trike of the Short-Tails. " Namere" says he. " has established imporrant distinctions between these birds and the

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SHORT-TAILED PYE.
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the Blackbirds; and I, therefore, do not hesisate to range them separately. 'The shortness of the tail, the thickness of the bill, and the length of the legs, are characteristic features; and these must involve other differences, in their actions, their habits, and perhaps in their dispositions. We are acquainted with only four birds of this species: I say, species; because the resemblance in the plumage is so exact, that they must be regarded as varieties only of a common stem. In all of them, the neck, head, and tail, are black, or partly black; the upper part of the body is green of various intensities; the superior coverts of the wings and tail are of a fine beryl colour, with a white or whitish spot on the great quills; and, lastly, except that of the Philippines, the lower part of the body is yellow."

The first of these four varieties, as described by Buffon, is the Short-Tailed Philippine; the second, he calls simply the Short- ' ail, observing that Edwards has figured it by the name of Short-I'ailed Pic of the East Indies ; the third, is the Short-'Tail of Bengal; and, the fourth, the Short-Tail of Madagascar.

These birds are also, by Gmelin, considered as varieties, under the appellation Corvus Brachyurus, var. 1, 2, \&e. 'This ShortTailed Pye of Edwards being, likewise, the second variety of Gmelin. It is the Coturnix Capensis, of Klein; and the Madras Jay, of Ray.

Notwithstanding we have adopted the more popular name given by Edwards to this bird, we cannot but confess that it's resemblance to the Jay struck us very forcibly on a first view of the object. We have, however, no information of it's habits, by which we might be induced either to support or to abandon ous opinion.

The bird is weil described hy Fdwards, from whom we shall transcribe all that he has said on the subject.
"The bill is staig'ot, sharp-pented. and of a brownixh flesh-cohum. From the upper mandible of the hith. along the crown of the head, and down the hinder part of the neck, passes a hack lime: above the ever, from the
bill down the sides of the neck behind, pass lines of a light brown on their upper borders, and white beneath. From the corners of the mouth, beneath the eyes, and a little way down the sides of the neck, passes a pretty broad black line. The throat immediately beneath the bill is white. The back, the greater coverts of the wings, and a few of the inner quills next the back, are of a finc darkish green colour. The upper covert feathers of the tail, and the lesser coverts without-side of the wings, are of an exceeding fine bright skyblue. A few of the coverts of the wings have black tips, where they join the green on the back. The quills, and some of the coverts above the outer ones, are black. About six of the outer quills have white bars across them, which form a white spot both above and beneath. The tips of the quills are of a dusky white. 'The insides of the wings are black; except the before-mentioned white spot, and another smaller white spot on the inner co-vert-feathers. The tail is composed of twelve very short feathers, of a blackish colour, both above and beneath, with green tips. The breast, belly, and thighs, are of a ycllowish buff~
buff-colour. The lower belly, and the covert feathers beneath the tail, are of a fine light red colour. The legs are long in proportion. The legs, feet, and claws, are of a reddish yellow, or dull orange-colour. The outer toes adhere to the middle ones at their bottom."


## RHINOCEROS BEETLE.

Of the Rlinoceros Beetle there are several varieties, some of which are found in very distant parts of the world, and are very different from each other: they are, of course, named from their horns, which are of various forms.

That which is represented in the figure annexed, was brought from the island of Guadaloupe: but, on the continent of New Spain, this species is said to be often seen twice the magnitude of this, which is delineated of the natural size.

The horn of this Rhinoceros Beetle, above, is toothed on each side; and, beneath, it is covered with a substance resembling yellow plush : the proboscis below it is toothed. Between these, as it is said, the insect takes the smaller branches of trees; and, by swiftly flying round, soon saws them off, for the purpose of building it's nest. 'The tecth cut arvay
the wood, and the plush-like part serves to brush away the saw-dust.

The eye, which is reddish, is defended br a horny point in front. The inseet is whoily of a shining black colour, except the wings. 'The lower wings, which are of a brown colour, are quite transparent; and the upper wings, which entirely cover them, are of a hard substance, of a greenish brown or olive colour, and sprinkled with black spots of various sizes.

This Rhinoceros Beetle is said to be very mischievous, and exceedingly difficult to be taken.

## THE

# NATURALIST's POCKET 

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& \text { No XXXII. } \\
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1. The Lesser Cagui monkey.
2. The GREAT HORNED OWL.
3. The GoAT BEETLE.

# COLOURED AFTER NATURE. <br> WITH <br> DESCRIPTIONS. 



HESSERCAGU'MON゙KEV。


## LESSER CAGUI MONKEY.

'THIS beautiful little animal, the Simia Sagoinus Jacchus of Linnæus, has a variety of appellations. Marcgrave calls it the Cagui Minor; Clusius, Ray, Klein, Brisson, and others, recognise it under the name of Cercopithecus; Schreber denominates it Le Sagoin, which is the Brasilian name; Edwards, the Sanglin, Cagui Minor, or Lesser Cagui Monkey; Pennant, the Striated Monker; and Buffon, from it's articulate utterance of the soond Quistiti, adopts this word as the name of the mimal.

Buffon, in his description of this animal, observes, that " Mr. Edwards, in his Gicmings, has given an excellent figure of it." Ihes excellent figure we have accurately copicd; and shall also, as Buffon has judiciously done, make much use of that able maturalist's description.

The animal delineated is a male, and it was alive when Mr. Edwards made the druwing. Ite considers it of the Nifonkey hind, but par-
thhing
taking of the nature of the squirrel. The body, including the head, was about six inches and a half long, and the tail nearly twice that length. The largest of this species are supposed to weigh about six ounces, and the smallest only four and a half. They are all natives of Brasil.

The head of the animal figured was very round: it's crown being covered with black hairs; and it's sides, as well as all round the cars, having long white hair, which stood out in two tufts, after a very singular manner, so as to appear in front like a peruke. The ears, which were visible in a side view of the animal, resembled those of the human species; being naked, and of a dark flesh-colour. There was little or no hair on the face; the skin of which was a swarthy fiesh-colour, cxcept on the upper part of the forshead, whote it was white. '! he cous wome of a reddish hazcl, with blaci pupils. The whole body was onored with bati bommish ashcoloued hair, of a very suft woolly mature: that on the back was a lietle firmer than the rest; and each simgle hair was of various colours,

## LESSER CAGUI MONKEY.

lours, being dusky at the bettom, then reddish, and tipped with grey, which caused a mixture or variegation on it's back. The paws, except their insides, were covered with short hair. It had five toes on each foot, made like those of the squirrel, with pointed claws; except on the two great toes or thumbs of the hinder feet, which had flat nalls. The tail was covered with a thick fur, in rings of a light ash-colour and black, regularly succeeding each other throughout it's entire length.

This is the particular description of vur Lesser Cagui Monkey, as delineated and described by Edwards: who obscrves, that-this animal is described, and badly figured, by Piso, in his Natural History of Brasil: and, from him, described by Ray, in his Synopsia Nethodica Animalium Quadrupedum. It seems, also, according to Fidwards; and Buffon adopts the same opinion, that it is the Cercopithecus, Sagouin, of Clusius, figured in his Exoticks. Johnston, in his Mistory of Quadrupeds, has given the figures from both Yiso and Clusius, as separate and distinct animals: his fryme from Piso, he by mistake, romarks Edwards,
calls Caitaia, that name standing in Piso nearer the figure of the Cagui than it's own proper name. Ludolphus, in his History of Ethiopia, or Abyssinia, has given two figures of this ammal, which are described in the English translation: he calls it Fonkes, or Guereza, but his description does not at all agree with the figures; so that Edwards imagines this was met with in Holland, and supposed to be the Little Monkey described by Ludolphus, thouris it was really brought from Basil, which was possessed by the 1)utch at the tine when that history was published. Klein has given a figure as large as life in his book: De Quadruped; but it's tail is of a greater length than lidwards ever observed any of these aimals to have, though he had seen five or sis of them alive. Dr. Parsons, in the Whilosophical Transactions, Vol xivii. has siten he best and most copious desoription of thes amimal: " hut," says Fhuath, s. the doe wi had not the good luck to meet with a sulfit so vigorous and full of fur, as some of thone witich I saw after his was pahlisher. fand Kingston's I saw, whicin was the smallest and most sickly of all I have scen.

## LESSER CAGUI MONKEY.

Mr. Hyde's, when I saw it, also wanted vigour, and a fulness of fur natural to it. I aiterwards met with two or three that appeared quite other things, they being very healthy and full of fur. That from which I drew my figure, was the property of the good and very obliging Mrs. Kennon"-called, on Edwards's plate, Mrs. Cannon-" formerly midwife to the Royal Family; who informed me, that it fed on several sorts of things, as biscuits, fruits, greens, insects, snails, \&zc. and that, once, when let loose, he suddenly snatched a Chinese Gold Fish out of a bason of water, which he killed, and greedily devoured ; after which, she gave him small live eels, which frightened him at first, by their twisting round his neck, but he soon mastered them, and eat them. I saw a fine one of this kind at Mr. John Cook's, merchant in London. Mr. Cook had formerly resided at Lishon; where his lady, for her amusement, tried to breed the Sanglin, as they called this little creature: and succeeded so well, as to produce young ones; the climate being proper for it. The young were very ugly at their birth, having little or no fur on them. They cling or
stick very fast to the breasts of their dam; but when they grow a little bigger, hang to her back or shoulders; who, when she is tired of them, will rub them off against the wall, or any thing else in her way; when she has quitted them, the male immediately takes the care of them, and suffers them ro hang on his back for a while, to ease the female."

Buffon says, it is certain, that neither this 2nimal, nor any other Sagoin, exists in Etioopia; and, that the Fonkes, or Guereza, of Ludolphus, is probably the Maucauco, or Loris, both which are common in the soutioun regions of the Oid Continent.

The distinctire charactors of this species, as coumerated by Buffon, are these-

They have neither cheek pouches, nor callositics on the huttocks. 'The tail is faccid. very bushy, annalated with alternate bars of black and white, or rather of brown and grey, and twice as long as the head and body. 't he partion of the nostriis is very thick, and the apertures are placed in the sides. The head is reand
round. 'The top of the front is covered with black hair; and, above the nose, there is a white spot without hair. The face is likewise almost naked, and of a deep flesh-colour. On each side of the head, before the ears, is a tuft of long white hairs. The ears are roundish, flat, thin, and naked. The eyes are of a reddish chesnut colour. The body is covered with grey ash-coloured hair, interspersed with a litule yellow on the throat, breast, and belly. They walk on four feet; and often exceed not half a foot in length. The females do not menstruate.

Pennant's reason for calling this animal the Striated Monkey, is only to be known by his description of the colour. "The body," he says, " is ash-coloured, reddish, and dusky ; the last forms striated bars across the body." With less discrimination than might have been expeeted from this laborious and very respectable naturalist, he simply describes the hands and feet as "covered with short hairs; fingers like those of a squirrel; and nails, or rather claws, sharp." Edwards, with more minuteness and precision, as above quoted, no-
tices the flat nails on the two great toes, or thumbs, as he calls them, of the binder feet. Pennant also says, it "makes a weak noise ;" but gives no intimation, that it articulates the word Ouistiti, from which one of the names that he enumerates is alone derived.

Such are the occasional imperfections of even the most able and ingenious men

## GREAT HORNED OWL.

This grand, and very famous nocturnal bird, the Bubo Atheniensis of Linnæus, is by some naturalists called the Athenian Horned Owl; and, by others, the Great Eared Owl. "At first sight;" says Buffon, " it appears as large and strong as the common eagie; but it is really much smaller, and it's proportions are quite different. The legs, the body, and the tail, are shorter than in the eagle; the head is is much larger; and the wings, which are not so broad, expand only five feet. It is easily distinguished by it's coarse figure, it's enormous head, the broad and deep cavities of it's ears, and the two tufts which rise more than two inches and a half on it's crown. It utters the hideous cry of "Hihoo, Hohoo, Boohoo, Poohoo!" with which it interrupts the silence of the night, when other animals enjoy the sweets of repose. It awakens them to danger, disturbs them in their retreat, pursues them, scizes them, or tears them to pieces, and transports the fragments to the caverns

## GREAT HORNED OWL.

where it fixes it's gloomy abode. It haunts only rocks, or such old deserted towers as are situated near mountains: it seldom ventures into the plains; and, declining the boughs of trees, commonly perches on solitary churches, and ancient castles. It's prey consists, in general, of young hares, rabbits, moles, and mice; which it swallows entire, digests the fleshy parts, and afterwards throws up the hair, bones, and skin, rolled into a ball : it also devours bats, serpents, lizards, toads, and frogs, and feeds it's young with them. "This species," Buffon remarks, " is not so numerous in France as those of the other O wls ; and it is by no means certain, that they remain the whole year in the country. They nestle, however, sometimes in hollow trees, and oftener in the crags of rocks, or in the holes of lofty old walls. 'Their nest, which is nearty three feet in diameter, is composed of small dry sticks, interwoven with pliant roots, and strewed with leaves 'They commenly lay one or two eggs, and but seldom three; the colour of these somewhat resembles that of the bird's plumage, and they are larger than hens eggs. The young are very voracions;

## GREAT HORNED OWL.

and the parents are vigilant in providing subsistence, which they procure in silence, and with much more agility than theis extreme corpulence would lead us to suppose. They often contend with the buzzards, are victorious in the combat, and seize the plunder. The light of day is to them less insupportable than to the other nocturnal birds; for they leave their haunts earlier in the evening, and later in the morning. The Great-Eared Owl is sometimes seen attacked by flocks of crows, which accompany his flight, and surround him by thousands. He withstands their onset; drowns their hoarse murmurs with his louder screams ; disperses them ; and, often, when the light begins to fail, seizes some fated victim. Though his wings are shorter, than those of most of the birds which soar, he can rise to a great height, especially about twilight: but, at other times, he generally flies low, and to short distances. The Great-Eared ()wl is employed in falconry, to attract the notice of the kite; and he is furnished with a fox's tail, to heighten the singularity of his figure. Thus equipped, he skims along the surface of the ground; and alights on the plain, without

## GREAT HORNED OWL.

venturing to perch on a tree. The kite perceives him from a distance: and advances, not to fight or attark him, but to admire his odd appearance; and generally hovers about, unguarded, till surprised by the sportsman, or caught by the birds of prey flown at him. Most of the pheasant breeders also keep one of these Great-Eared Owls, which they place in a cage among the rushes, in an open place, to draw together the ravens and the crows; which gives them an opportunity of shooting and killing a greater number of these noisy birds, so alarming to the young pheasants. To awoid scaring the pheasants, they shoot at the crows with a cross-bow.

It appears that, in this species, there is a first variety, which includes a second; both are found in Italy, and have been mentioned by Aldrovandus: " the one may be called," says Buffon, " the Black-Winged GreatFared Owl; the second, the Naked-Fcoted Great-Eared Owl. The first differs from the Common Great-Eared Owl only by the colours of it's plumage, which is browner or blacker on the wings, the back, and the tail:

## GREAT HORNED OWL.

the second, which resembles it exactly in the deepness of it's colour, is distinguished by it's legs and feet, which are but slightly shaded with feathers.

What Buffon has above called the BlackWinged Great-Eared Owl , is our Great Horned Owl represented in the annexed print; and is thus described by Edwards, who made his original drawing from the living bird. " On placing," says he, " a ruler upright on it's perch near it, as it sat in the posture here figured, I found it's height to be above seventeen inches; by which the reader may conclude how much the bird exceeds the print in size. 'The bill is pretty much hooked, and it's base partly covered with small greyish feathers like hair, standing forwards. The bill, and talons, are of a dusky or blackish horn-colour. The eyes are, as in all the species of Horned Owls I have seen, of a fine golden colour, with black pupils. The face is flattish, as in the whole genus of Owls; of a whitish grey colour, terminated all round by lines and spots of dusky or black. 'The horns, or ears, are composed of feathers only; which

## GREAT HORNED OWL.

it can raise, or let fall almost fat: ther are brown on their upper sides, and biack beneath; which blackness falls immediately above the eyes, and a dusky line is carricd round them, as if nature had thereby designed in heighten their brilliant lustre. The whele bird is covered with brown feathers, variegated with black: the brown is ligheer on the breast and belly, than on the back, and uics away into a faint ash-colour, or white. on the lower part of the belly. 'Ine larse spots on the head, back, and wings, are some of them transverse, others drawn downwards in a broken confused manner: those on the breat and belly are, down the middle of the feathers, broader above, and growing gradualiy narrow below. Besides these jargci spots, they are ali marked with very minute transerse ducky !ives. The insides of the quills, and the malerside of the taif, are ash-colour, with the tuanswerse bars fainter than on the onter sides. The legs and feet are made as in cother Owls: and covered, to the ends of the toes, with whand soft downy feathers."
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Torn


## GOAT BEETLE.

This curious inseet, which is the exadt size represented in the figure annexed, was found by a cooper in London, on his cleaving a piece of Virginia oak, for pipe staves. It is of a dusky brown colour; and takes it's name from the position of it's long jointed horns, which tend backwards like those of the Goat. 'The piece of wood was given to Ediwards, by the celebrated Mr. Joseph Ames, F. R. S. in April 1758, with the insect then alive, and cais it's way through: a task which it accomplished in the July following, when it came out through the hole which it had gnawed at the end, as appears in the print; where, also, is visible, on the side of the wood, the cavity which it had made in the solid oak. The hole which it entered was in the other part of the wood, corresponding with that figured.

Dr. Pye, of Mile End, had onc of these Goat Beetles, which was found alive, iin the Worm state, in a piece of hard wood brought
GJG ISEETEE.
tiom Vew Lngland; and, in that state, actually gnawed the rood. When the Worm or Maggot was perfect, it changed to a Chrysaiis, in which the Becrle might be seen compleatly formed, and wrapped up in a thin transparent skin, a drawing of which was presereed by the docitor. After continuing in that state for some time, it came out a perfect Goat Bezile of the same species with the above descrited. There are. however, many different species of this genus of Beetle; and. Ediward is of ofinion, all of them wood eaters: one. fome in a solid piece of mahogany, he had seen of a very beautiful colour.

It is remarked, by Edwards, that the Goat Beetle grame the wood in it's perfect state. "The dust." savs be, "that I found in the carity of the wood, had not the appeararece of excrement, but of minute chips gnawed from the wood."

These Gonat Buctios auptar to be ail ratises of America.

## THE

## JATURALIST's POCKET

MAGAZINE;
OR,

COMPLEAT CABINET OF NATURE.

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& \text { No XXXIII. } \\
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1. The LITTE ANT-EATER.
2. The RED-BEAKED TOUCAN.
3. THE SMIALL BIND-WEED.

# COLOURED AFTER NATURE. <br> WITH <br> DESCRIPTIONS. 


I.ITREE ANTREATER.


## LITTLE ANT-EATER.

This curious animal, the Myrmecophaga Didactyla of Linnrus, appears to have beea first figured by Edwards, under the name of the Little Ant-Eater. By the natives of Guiana, where it inhabits, it is called, Buffon says, the Ouatiriouaou; and himself names it the Fourmillier.

The Little Ant-Eater, which is about the size of our common English squirrel, is thus described by Edwards, with his customary precision.

It is covered with very thick soft hair, shining like silk, and a little curled or waved on the back. A dusky line runs along the back, from the nock to the beginning of the tail; and a dusky list, also, on the belly, runs parallel to that on the back, but is somewhat broader. The hair of the head, body, and tail, is of a light reddish brown; that of the legs, and the thickest part of the tail, inclincs

## IITTLE ANT－EATER。

to ash－colour．The hair is every where nearly of the same length，even down to the claws． The inside of the tail，towards it＇s tip，is with－ out hair，and seems naturally to curl down－ wards：＂which，＂says Edwards，＂inclines me to believe，that it can suspend itself by the tail on boughs of trees．＂This idea has been confirmed by subsequent observation．
＂What is most extraordinary in this ani－ mal，＂remarks Edwards，＂is it＇s having only two claws on each of it＇s fore feet；or，as some authors call them，hands．The fingers，or toes，from which these claws or nails arise， have no visible division：the outer claw on each hand is remarkab！＇y large，and the imner very small in proportion to it．The hinder feet have each of them four claws，pretty nearly of an equal bigness．Both feet and hands have sotnething remarkable in their structure：having nothing in form of a thumb， or great toe，as many quadrupeds have；but， instead thereof，it hath thick，round，callous heels，on all it＇s feet，between which and it＇s claws the foct are lollow；so that it seems ca－ prible of eraspiag small brames of trees he－

## EITTLE ANT-EATER。

tween it's heels and claws. It's cars are small and round, hardly appearing above the hair. It's hinder legs are longer than those forward.
" The drawing was taken from the stuffed skin of this animal, well preserved, in the possession of his Excellency Count Perron, Ambassador from the King of Sardinia, who was informed that it was brought from the Spanish main in America. Another of these same animals, preserved in spirits, I bought by commission for the late Sir Hans Sloane, out of the late Duke of Richmond's collection, in whose catalogue it was called a species of the Sloth. It will continue in the British Museum, where it may be examined by naturalists. By the help of these two, a more perfeef figure, \&c. is here given, than could have been taken from either of them alone : the first being only a skin; and the other closely sealed up in spirits of wine, which I was not permitted to open. I could not examine the mouth of it; but, according to C. Limreus, it is without teeth. See his Systema Naturæ, Lipsiæ, A. D. 1748. p. 8. Ord. 3. "AGRI 1 , dentes nulli, lingua longissima cylim?rica. 15.

## LITTLE ANT-EATER.

Myrmecophaga, corpus pilosum, aures subrotundæ." His second species seems to me to be the above figured and described animal. " 2. MYRMECophagA, manibus dactylis, plantis tetradactylis :" which, in English," sary Edwards, may be rendered, "the Ant-Eater" -a family of the order of Field Animals, of which Linnæus makes this the second spe-cies-" with hands having two fingers, and feet having four toes." I find no figure, or any account of this animal, farther than what Limæus has given above, which amounts to no more than a name. So that, I believe. this figure is the first that has been made public."

This is the compleat account and description given by Edwards, to accompany his excellent figure, which we have also copied.

Pennant, who calls it the Least-or, rather, with his singularity of orthography, " the Lest"-Ant Eater, describes this animal as having a conic nose, bending a little down; ears small, and hid in the fur; two hooked claws on the fore fect, the exterior much the
largest; four on the hind feet; head, body, limbs, and upper part and sides of the tail, covered with long, soft, silky hair, or rather wool, of a yellowish brown colour; from nose to tail seven inches and a half long; tail eight inches and a half, the last four naked on the under side; the tail thick at the base, tapering to a point, and prehensile; inhabiting Guiana; and climbing trees in quest of a species of Ants which build their nests among the branches.

Seba is said, by Pennant and other respectable naturalists, " to have described this animal by the name of Tamandua sive Coati Americana Alba;'' or, the 'Tamandua, or White Coati, from America. This, we apprehend to be a mistake, as the Middle, and not the Least, Ant-Eater, could alone be designated under this character: that animal, indeed, Buffon says, " has whitish hair about two inches long;" and Pennant describes it to be " shining and hard, of a pale yellow colour."

Our Little or Least Ant-Eater, is thus described
scribed by M. De la Borde, the French King's Physician at Cayenne, who communicated these particulars to the Count De Buffon, as well as the description of two other species.
" It has," says M. De la Borde, " bright reddish hair, yet somewhat of a golden colour. It feeds on ants, which adhere to it's long worm-shaped tongue. This animal is not larger than a squirrel. It moves slowly, and is easily taken. Like the sloth, it fixes itsclf to a staff; and, as it has no desire to disengage itself, it may be carried in this manner whereever we please. It has no cry. We often find these animals adhering to branches by their claws. The females bring forth only one at a time, in holcs of trees, which they line with leaves. They feed in the night only: Their claws are very dangerous; and they clasp them so close, that it is impossible to loose them. They are not rare, but it is difficult to perceive them on the trees."



REU-BEAKED TOECAN


## RED-BEAKED TOUCAN.

THE Toucan, properly so called, according to Buffon, contains only five known species; but this genus subdivides itself into the Toucans and the Aracaris. These differ from oach other, in the first place, as to their size, the Toucans being much larger than the Aracaris; secondly, with respect both to the dimensions and substance of the bill, that of the Aracaris being much the largest, bardest, and most solid; and, lastly, in the tail, which the $\Delta_{\text {racaris }}$ have long, and very sensibly tapered, whereas it is rounded in the Toucans. The names and distinctions of the two varieties are said to have originated with the Brasilians: but the natives of Guiana, have made the same discrimination; only calling the Toucans the Kararouima, and the Aracaris the Grigri. In treating generally of these two tribes, under the title Toucans, Buffon makes the following preliminary remarks.
"What may be termed the physiognomy of animated beings, results from the aspect of
their head in different positions. Their form, their figure, their shape, \&c. refer to the appearance of their body and of it's members. In birds, it is easy to perceive, that such as have a small head, and a short slender bill, exhibit a delicate, pleasing, and sprightly physiognomy: those, on the contrary, with an over-proportioned head, such as the Barbets; or, with a bill as large as the head, such as the 'Toucans; have an air of stupidity, which seldom falsifies their natural talents. Any person, on beholding a Toucan for the first time, might take the head and bill, in a front view, to be one of those long-nosed masks which terrify children: but, when he seriously examined this enormous production, he would be surprised that nature had given so huge a bill to a bird of such moderate size; and his astonishment would increase, on reflecting that it was useless, and even burdensome, to it's owner, obliging it to swallow it's food whole, withou: cither dividing or crushing. So far, too, is this bill from serving the bird as an instrument of defence, or even as a counterpoisc, that it aits like a weight on a lever, which tends constantly to destroy the balance, and occasion
a sort of hobbling motion. The enormous and useless bill of the Toucan, includes a tongue still more useless, and of a structure very uncommon: it is neither fleshy, nor cartilaginous, as in other birds, but a real feather misplaced.

These birds have a very brilliant plumage, the throat being orange of the most vivid hue; and, though such beautiful feathers are found only in some of the species, they have given name to the whole genus; 'Toucan being the Brasilian word for a Feather. The 'Toucan's feathers are used, even in Europe, for making muffs: and it's huge bill has acquired it the honour of being translated among our southern constellations; where nothing is admitted, it has been ingeniously remarked, but what is striking and wonderful.

The form of this huge unwieldy bill is very different in each mandible: the upper is bent into the shape of a sickle, rounded above, and hooked at the extremity; the under is shorter, narrower, and less curved below. Both have indentings on the edges, but they do not fit
into each other, or even correspond in their relative positions. The tongue of the Toucan is, if possible, still more wonderful than the bill. It is the only bird which may be said to have a feather instead of a tongue: for a feather it certainly is, though the shaft be a cartilaginous substance. The Toucan, however, is not mute; but utters a sort of whistling, with so quick a reiteration, and with such continuance, that it has been denominated the Preaching Bird.

Toucans are scattered through all the warm parts of South America, but never appear in the ancient continents. They flit rather than migrate: following the maturity of the fruits on which they feed, particularly those of the palm. These trees flourishing most in wet situations, the Toucans resort to such spots; and, sometimes, they even lodge on the mangroves, which grow in deluged mud. Hence, says Buffon, it has been imagined that they devour fishes: but, at least, they must be very small, since these birds are obliged to swallow all their food entire. They generally go in small bodies of from six to ten; and, owing

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RED-BEAKEG TOUCAN.
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to the shortness of their wings, and the incumbrance of their enormous bill, their flight is heavy and laborious. They rise, however, above the tallest trees, on the summits of which they are almost always seen perched, and in continual flutter. But the vivacity of their motions dispels not their dull air; for the huge bill gives them a serious melancholy countenance, and their large dull eyes augment the effect. In short, though lively and active, they appear heavy and aukward. As they breed in holes abandoned by the Woodpecker, it has been supposed that they excavated these themselves: but the bill is much too thin for any such purpose; and, as Scaliger formerly remarked, being hooked downwards, it seems impossible that it should ever make a perforation. They lay only two eggs, yet all the species contain abundance of individuals. When taken young, they are easily tamed; and, it is said, will even propagate in the domestic state. They are not difficult to rear; for they swallow whatever is thrown to them, bread, flesh, or fish. They take, with the point of their bill, bits held near, toss them up, and receive them in their capacious throat.

They are so susceptible of cold, that the cool of the evening, in the hottest climates, greatly affects them; and they make beds of herbs, straw, \&c. even when housed. Their skin is in general blue under the feathers; and their flesh, though black and hard, is said to be palatable.

The Red-Beaked Toucan, or Ramphastos Erythrorhynchos of Linnæus, is of the bigness of a common tame pigeon, and shaped like a jackdaw. The bill, from the angles of the mouth to it's point, is six inches and a half long; it's height, or width, in the thickest part, a little more than two inches; and it's thickness near the head one inch and a quarter. It is arched, or rounded, along the top of the upper mandible, the under side is also round The upper mandible, round it's base, or joining to the head, and it's upper part quite to it's point, is of a bright yellow colour: it's sides are of a fine red or scarlet colour; and so is the lower mandible, except at it's base, which is purplish. The red, both on the upper and under chap, is clouded more or less in different parts with black; so that the point of the lower mandible is black. A black list

> RED-BEAKED TOUCAN.
passes almost round the bill near it's base, which separates the red from the other colours: between the head and the bill, there passes a narrow black line of separation all round the base of the bill, in the upper part of which the nostrils are placed, which do not shew themselves, being alnost covered with feathers. This, Edwards observes, " occasioned our first natural historians to say, it was without nostrils, and set them on straining their wits to supply that want some other way." Round the eyes, on each side of the head, is a space of blueish skin void of feathers; above which, the head is black, exce ${ }^{\text {t }}$ a white spot on each side, joining to the base of the upper mandible of the bill. The hinder part of the neck, the back, wings, tail, belly, and thighs, are black. The under sile of the head, the throat, and begimning of the breast, are white : between the white on the breast, and the black on the belly, is a space of red feathers in form of a new moon, having it's points upwards. The covert feathers undes the tail are red, and those above the tail are yellow. The legs, feet, and claws, are of an ash-colour. 'Ihe toes stand like those of parrots, two forwards and two behiad.

The figure which we have copied, was originally drawn by Edwards, from a preserved specimen of the real bird, of which the bill, head, body, and wings, were perfect, but the tail and legs were wanting. "On comparing it," says he, " with the drawings of Surinam birds, by Anna-Maria Marian, in the Museum of the late Sir Hans Sloane, I found a draught of it as big as life, which agreed exactly with the semains of the dried bird, and enabled me to compleat my figure."

It is evidently to this species of the Toucan that M. De la Condamine refers, when he speaks, in his Voyage a la Riviere des Amazones, of a Toucan which he saw on the banks of the Maragnon, whose monstrous bill was red and yellow; and it's tongue, which resembled a fine feather, esteemed by the Indians to have great medicinal virtues. Buffon is of opinion, that Edwards's Toucan, or Brasilian Pye, and his Red-Beaked 'Eoucan, are only male and female of the same species. An error in which he also implicates Linuæus and Gmelin, as well as Brisson, Fernandez, and Nieremberg.


SMALLBIND-WEED.


## SMALL BIND-WEED.

The original drawing, which represents this very common plant, was made by the ingenious Edwards; who observes, that it is the Smilax Lenis Minor, or Small Bind-Weed, described in Gerard's Herbal. "It grows," he adds, " very plentifully, on the hedges and banks that inclose the fields round London. The flower consists of a single leaf; though, by a kind of star, it is divided into five parts. It is generally of a reddish or purple colour; and, sometimes, so faint, that it is almost white. The stamina are yellow. I have," concludes Edwards, " been very careful to express this little plant exactly according to it's naturai growth, and the proper direction of the twining of it's stem round what falls in it's way; with the twist of the flowers before the y open, and the form of a seed-vesscl soon after the flower is fallen off."

It is not a little remarkable that, in our collection of original drawings from the plam:s
of New South Wales, there is one which exactly represents this Small Bind-Weed, in form, colour, and size, both of the flower and the leaf.

Of the Bind-Weed, usually confounded with the Colvolvolus, there are numerous species; some or other of which are to be found in almost every part of the world. Many of them have very potent medicinal qualities; particularly, the Convolvolus tribes.

## THE

## NATURALIST's POCKET

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x. The EGYptian Jerboa. 2. The Yellow-RUMPED FLY-CATCHER. 3. The Gentian of the DESART.

## COLOURED AFTER NATURE.

WITH
DESCRIPTIONS.

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## EGYPTIAN JERBOA.

The Jerboa, or Dipus of Linnæus, is a genus of animals, consisting of several species: the characteristics of which are-that they have two cutting teeth in each jaw; two very short fore legs; two very long hind legs, resembling those of cloven-footed water-fowl; and a very long tail, tufted at the end. The Kangaroo, some naturalists are of opinion, from it's similar conformation, ought to be ranged with the Jerboa. By the Grecks, the Jerboa was called Mus $\delta_{6 \pi r s}$ : and, by the Romans, Mus Bipes: the Arabian name, according to Dr. Shaw, is Jerboa, or Yerboa; and Edwards calls it the Gerbua:
" These animals," says Buffon, " gencrally conceal their hands or fore feet among the hair; so that, at first sight, they seem to have only two feet. In transporting themselves from place to place, they do wot walk, or advance one foot after another, but leap nimbly to the distance of three or form fect.

## EGYPTIAN JEREOA.

When reposing themselves, they sit on their knees, and sleep only during the day. Their dispositions are mild, and yet they can never be tamed beyond a certain point. They dig holes in the earth like rabbits, and in a much shorter time. About the end of summer, they lay up grain and herbage in their magazines; where, in cold countries, they pass the winter."

The Egyptian Jerboa, or Dipus Ægyptius of Linnæus, which is the animal we have figured in the annexed print, is a species described by Pennant, as inhabiting "Egypt, Barbary, Palestine, the desarts between Bassora and Aleppo, the sandy tracts between the Don and Volga, and the hills south of the Irtish, from Fort Janiyschera to the Seven Palaces, where the Altaic mountains begin. It is," he says, " the Mus Sagitta of Pallas; the Mus Jaculus of Linnæus; as well as the Daman Isiael, or Lamb of the Israelites, of the Arabs; and supposed to be the Saphan, or Coner, of Holy Writ, our Rabbit being unknown in the Holy Land. Dr. Shaw met with this species on Mount Libanus, but distinguishes it from the Jerboa. It is also the Mouse of Isaiah, lxvi.
17. The word Achbar, which is in the original, signifying a male Jerboa. This, and the Great Siberian Jerboa, which are both: found to extend to the colder regions, grow torpid on any approach of cold, and remain in that state till they are revived by a change of weather. Pallas denominates this class, the Species Lethargicæ."

In the above account, from Pennant, we suspect some confusion: and incline to argee with Buffon, in the distinctions which he makes between the 'Tarsier, or Woolly Jurboa, which he asserts to be an undoubted particular species, because it has five toes on cach foot, like those of a Monker; the Jerboa, properly so called, which is our Egyptian Jerboa; the Alagtaga, with legs like those of the Jerboa, but having five toes on the fore feet, and three only, with a short spur, which may pass for a thumb, or fourth toe, on the hind feet; and the Daman Israel, or Lamb of Israel, which may be the Mis I ongipes oi Linnæus, having four toes on the fore fert, and five on those behind. Alagtaga, which is the 'Tartarian name of that species of the Jerbea.
is said, by Messerchmid, to signify " an animal which cannot walk." The word Alar. taga, however, Buffon remarks, appears to be nearly the same with Letaga, which is applied to the Flying Squirrel. " Hence," says be, "I am inclined to believe, that Alagtaga, as well as Letaga, are generic rather than specinc names, and that they denote a Flying Animal ; especially, as Strahlenberg, quoted by Gmelin, calls this animal the Flying Hare."

The Jerboa is said by Buffon to be common in Circassia, Fgypt, Barbary, and Arabia; and the Alactaga in 'Tartary, along the Wolga, and as far as Siberia. It is seldom, he observes, that the same animal inhabits climates so different; and, when it does happen, the species undergoes great changes. This we presume to be the case with the Jerboa; of which, notwithstanding these differences, the Alagtaga, seems to be only a variety. With regard to the Daman, or Lamb of the Cnildren of Israel, which seens to be a kind of Jerboa, hecause it's fore legs are remarkahiy shorter than the hind, having never seen this anmal, we cannot do beter than copy the remarks
marks of Dr. Shaw, who had an opportunity of comparing it with the Jerboa, and speaks of them as two distinct species. "The Daman," says this author, " is likewise an animal of Mount Libanus, though common in other places of this country. It is a harmless creature, of the same size and quality as the rabbit; and with the like incurvating posture and disposition of the fore teeth. But it is of a browner colour, with smaller eyes, and a head more pointed, like the Marmots. The fore feet likewise are short, and the hinder are nearly as long in proportion as those of the Jerboa. Though this animal is known to burrow sometimes in the ground; yet, as it's usual residence and refuge are in the holes and clifts of the rocks, we have so far a more presumptive proof, that this creature may rather be the Saphan of the Scriptures, than the Jerboa. I could not learn, why it was called Daman Israel, i. e. Israel's Lamb, as these words are interpreted." Prosper Alpinus, who mentioned this animal before Dr. Shaw, says that it's flesh makes excellent eating, and that it is larger than the European rabbit. But this last fact, Buffon adds, appears to be sus-

## EGYPTIAN JERBOA.

picious: for Dr. Shaw has omitted this passage of Prosper $A$ lpinus, though he transcribes all the other remarks of that author.

Edwards, in describing the Egyptian Jerboa, which he figured from the living animal in London, observes, that it's general form resembles that of the rat. The head is shaped nearly like a rabbit's: the ears are shorter. The eyes stand pretty much out of the head. The nose is void of hair, of a flesh-colour. It's teeth are like those of a rabbit. The skin is covered, on the upper side of the head and back, with brownish hair, of the colour of a wild rabbit. 'The under side of the head, the throat, belly, and insides of the thighs, are covered with white hair. On the lower part of the back is a crescent, composed of black hair, the horns of which turn on the sides towards the head. The paws forward have four toes with claws, and a rudiment of a toe with no claw. These are void of hair, as well as the hinder legs, and of a flesh-colour. It generally hides it's fore fect in it's fur, so as to seem to have only the two hinder legs, which are very long, having only three toes, and are bare above the

EGYPTIAN.JEREOA.
first joint, so that they appear like birds legs of the wading kind. It's progression is by hopping, which it can do very quick, three or four feet at once. The tail is long, and of the colour of the back; except towards the end, where it becomes black and bushy, the very tip being white. It never touches the ground with it's fore feet, but holds it's food in them like a squirrel. "It is said to have but one vent, as in birds; but this," says Edwards, " I cannot affirm, as I could not conveniently handle the living animal, which would bite when held fast. It seems to be a very harmless creature; and feeds much in the same manner that rabbits and hares do, eating corn and herbs of many sorts. It is more strong, and keeps closer to it's hutch in the day-time, than in the dusk of the evening; when it ventures forth, and hops more familiarly, and with less fear, about the room where it is kept: this inclines me to believe that it is naturally a nocturnal animal."

Pennant says, of this animal, that "it is as singular in it's motions as in it's form; always stands on it's hind-feet, the fore fect perform-
ing the office of hands. It runs fast; and, when pursued, jumps five or six feet from the ground. It burrows like rabbits; keeps close in the day ; sleeps rolled up; is lively during night; and, when taken, emits a plaintive feeble note. It feeds on vegetables, and has great strength in it's fore feet. Two," adds Pennant, " which I saw living in Londor, burrowed almost through the brick wall of the room they were in; came out of their bole at night, for food; and, when caught, were much fatter and slecker than while confined to their box."
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## YELLOW-RUMPED FLYCATCHER.

Though the genus of Fly-Catchers, of the Muscicapa of Limnæus, is largely treated of by Buffon; who describes two species as found in Europe, eight in Africa and the warm regions of Asia, and thirty in America ; it is not a little remarkable, that he seems to have entirely overlooked this Yellow-Rumped FlyCatcher of Edwards. To us, as well as to this last naturalist, it appears that the bird in question is an indisputable Fly-Catcher; and it cannot be well doubted that Edwards, who had this bird, preserved dry, sent from America, by his friend Mr. William Bartram of Pennsylvania, himself no contemptible naturalist, received it under the appellation which he has given it in his inestimable work.

The Yellow-Rumped Fly-Catcher is very little larger than the figure, as represented in the annexed print ; and has a pleasing appearance, as well in it's general form, as in the chaste
chaste disposition of it's agreeably diversified hues. We need only to give, in addition to this delineation of Edwards, the excellent description of that able naturalist, for a compleatly perfect idea of the bird.
" It has," says he, "a slender bill, bending a little downwards at it's point, and of a dusky colour, but a little lighter at the base of the lower mandible. The top and sides of the head round the eyes, are of an ash colour, which gradually becomes of an olive green on the hinder part of the neck and back, which is sprinkled with black spots. The throat, breast, and rump, are of a bright yellow colour. The breast is marked with black spots like drop-pearls. The thighs, belly, and co-vert-feathers under the tail, are white. The wings are of a very dark ash-colour: the tips of the first and second rows of covert-feathers are white, and form two ohlique bars across each wing; the quills next the back are also edged with white. The covert-feathers with-in-side the wings are white: the insides of the cquills are ash-coloured, with narrow edges of white on their inner webs. The tail fea-
thers, except the two middlemost, which are black, 'have the middle parts of their inner webs white, their tips and bottoms being blackish. 'The covert-feathers on the upper side of the tail are black. The legs and feet are made as in most other small birds, and of a dusky colour."

It has been judiciously remarked by Buffon, that " the useful destination of the Fly-Catchers will occur to the most superficial observer. The insect tribes elude the interference of man; and, though despicable as individuals, they often become formidable by their numbers. I nstances are recorded of their multiplying to such an amazing degree as to darken the air; of their devouring the entire vegetable productions; and, of their carrying in their train the accumulated ills of famine and pestilence. Happily for mankind, such calamities are rare, and Nature has wisely provided the proper remedies. Most birds search for the eggs of insects; many feed on their groveling larvæ; some subsist on their crustaceous chrysalides; and the Fly-Catchers seize them after they escape from prison, ex-
ulting on their wings. Hence, in auturn, when these birds migrate into other climates, the swarms of gnats, flies, and beetles, are in our latitudes more than usually numerous. But, in the tropical countries, where heat and moisture conspire to ripen the exuberance of insect life, the Fiy-Catchers are more essential. All Nature is balanced, and the circle of generation and destruction is perpetual! The philosopher contemplates, with tender melancholy, this cruel system of war; he vainly strives to reconcile it with his ideas of benevolence of intention: but he is forcibly struck with the nice adjustment of the various parts ; their mutual connection and subordination; and the unity of plan which pervades the whole!"

By such excellent, such noble reflections, Buffon abundantly compensates for his occasional imperfections in what may be denominated the mechanism of natural history !



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## gentian of The desart.

The Gentian, or Gentiana of Linnæus, takes it's name from Gentius, a King of Illyrium, who first discovered the virtues of this genus of plants. It is also called Fellwort, and is sometimes described as the Gall of the Earth, from it's extreme bitterness. Several of the species are named, the Lesser Centaury, Greater Centaury, \&c.

The generic charafters are-that it has a permanent empalement to the flower, which is cut into five acute segments. 'The flower has one petal, which is tubulous, and cut into five parts at the tops, which are flat. It has five awl-shaped stamina, hich are shorter than the petal, terminated by single summits. In the centre is situated an oblong cylindrical germen, having no style, but crowned by two oval stigmas. 'The germen afterwards becomes an oblong taper-pointed capsule, with one cell, containing many small secds fastenced. to the valves of the capsule.

This genus of plants is ranged in the second section of Linnæus's fifth class, which includes the plants whose flowers have five stamina and two stigmas. Tournefort places the Gentian in the third section of his first class, which includes the herbs with a bellshaped flower of one leaf, whose pointal becomes a dry capsule, which in some have but onc, and in others have many cells.

Of the species, which are numerous, twelve are described by Miller. Their medical virtucs, which may, perhaps, be considered as nearly similar, are very great.

The Gentian of the Desart, from America, where it is said to be rare, though it approximates several species, and particularly those produced among the $\Lambda 1 p s$ and Appenines, seems to have escaped the notice of most naturalists.

The drawing of this plant was sent to Fngland, by Mr. Bartram of Pennsylyania; who calls it, the Autumnal Perennial Gentian of the Desart, and describes it as follows-

## GENTIAN OF THE DESART.

It produces three or four stalks from one root, each of about a foot high, and some stalks produce two flowers. The flowers are of a fine blue colour; the stalks and leaves green. 'The flowers keep long in their beauty, and the roots live many years.

This plant is scarce in Pennsylvania: and Catesby, in his History of Carolina, has given a different species of the Gentian.

Of the peculiar medicinal virtues of this Gentian of the Desart, we are wholly unapprized, though it probably corresponds with those of the species which it so much resembles. It's rareness may be supposed to have prevented it's importation into Europe; where, indeed, the Gentians, of various descriptions, very sufficiently abound.

All the modern English naturalists, who mention the Gentian, take notice of a fatal accident, which happened many years ago, in this country, from the unfortunate mixture of the root of the Henbane, in a parcel of the Gentian root, which it externally resembles,

## GENTIAN OF THE DESART.

and the incautious use of which was attended with the most calamitous effects.

The very little probability, however, of any similar mistake ever again happening, ought not to deter us from a free use of one of the most potent and salutary bitters in the whole circle of the materia medica.

NATURALIST's POCKET MAGAZINE;
OR,

## COMPLEAT CABINET OF NATURE.

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& \text { Ne XXXV. } \\
& \text { containing, }
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1. The VIRGINIAN OPOSSUM.
2. JAMAICA WOODPECKER.
3. FINGER FLOWER, OF NEW SOUTH WALES

COLOURED AFTER NATURE.

WITH
DESCRIPTIONS.

$1$


## VIRGINIAN OPOSSUM.

'THE Opossum, or Didelphis of Linnæus, is a peculiar genus of animals, consisting of many species, whose generical characteristics are thus described-

The fore-teeth are very small, and rounded: of these, there are ten in the upper jaw, with two intermediate ones longer than the rest; in the lower jaw, there are eight, with two intermediate ones broader than the rest, and very short. The tusks are long, and the grinders knobbed. The tongue is furnished with a fringe of pointed papillie. In most species, the female has a pouch, or false belly, within which the teats are placed. In general, too, the tail is long, slender, and naked.

Buffon says, "the Opossum is an American animal, and easily distinguished from all others, by two very singular characters: 1. Under the belly of the femaie there is a large cavity, in winin has receives and suckion

## VIKGINIAN OPOSSUM.

her young. 2. In both male and female, the first toe of the hind feet has no claws, and is separated from the rest, like the thumb in the human hand; while the other toes of the same feet are placed near each other, and armed with crooked claws. The first character has been remarked by some traveliers and naturalists; but the second has entirely escaped them. It was," adds Buffon, " first observed by Edward Tyson, an English physician. He is the only author who has given a good description of the female; and, a few years after, Mr. Cowper, a celebrated English anatomist, communicated to Tyson the observations which he had made on the male. Other authors, and particularly the nomenclators, who perpetually multiply species without necessity, have committed a number of blunders with regard to this animal, which we must endeavour to correct." Accordingly, the Count De Buffon enters into a long critical discussion; of much ingenuity, it must be confessed, but so far from proving satisfactory, that he is afterwards, on farther information, obliged to acknowledge himself in a very considerable error. 'The fact scems to be, that we are all
more or less under the influence of particular prejudices; and that we have, generally, too little charity, for those who are attached to notions, perhaps not more erroneous or absurd than those entertained by ourselves, but only of a different nature. Buffon, adverse to the dry and unentertaining manner of the mere nomenclator, treats with too much disdain the labours of intelligent and ingenious men, whose diligent research, patient investigation, and well considered arrangement, not only entitle them to the approbation, and even the applause, of mankind, for smoothing the study of the science of nature; but who, Buffon himself, on innumerable occasions, is compelled absołutely to copy, and without whose assistance his valuable investigations would probably have proved less attractive, as well as less entitled to universal regard. No slave of system, however, can more rigorously contend for his favourite arrangement of any particular species; nor any nomenclator for his select name of distinction; than Buffon constantly labours to establish his favourite doctrine, " that the animals of the Old World, as Europe, Asia, and Africa, are denominated,
will never be found procisely the same in America, or the New Worid, unless they are transported thither." This rule, though very general, has certainly, like most other general rules, as they are called, many exceptions.

Pennant, in his description of the Virginian Opossum, which is the object of our at present more particular attention, as if resolved to be even with the grand enemy of systematical authors, expressly says-" M. De Buffon seems nct to be acquainted with this animal; but has compiled an account of it's manners, and collected the symonyms of it. The figures which he has given, belong to other species, as does the description." Amidst all this opposition of sentiment, created by prejulice, we are to seek for truth, wherever it may be found, and howeres it may be carveloped; without being always quite certain, that we are not ourselves cqually swayed by prejudice. Some confusion we perceive in butfons account of the Virginian Opossum; which Pennant, perhaps, too gencialiy consures. From both these ingenious men, however, material assistance is to be derived.

The

The names of the Opossum are numerous : it is called, by the Brasilians, Sarigue, Sarigoi, Serwoi, Carigue, or Carigueya; by the Mexicans, Tlaquatzin; by the inhabitants of the Antilles, and Peruvians, Manitou; in Louisiana, Rat Sauvage, Rat de Bois, or Wood Rat; by Gesner, Aldrovandus, \&c. Simi-Vulpa, and Vulpes Major Putoria ; in the East Indies, Cerignon; and by Seba, Brisson, \&c. the Philander. Seba enumerates three species of the Philander, which Buffon pronounces the same; but afterwards, in his Supplement, is convinced, by a criticism of M. De Vosmaër, Dircetor of the Prince of Orange's Cabinct of Natural History, that he had been mistaken, though he still admits only two distinct species.

Our Virginian Opossum, we have figured from what Pennant justly calls " the very faithful representation in the Philosophical Transactions." The usual length of this animal, from the tip of the nose, to the base of the tail, is about twenty inches; and the tail is about a foot long. It has a long, sharppointed nose; large, round, naked, and very thin black ears, edged with pure white; and
small, black, lively eyes. There are long stiff hairs on each side of the nose, and behind the eyes. The face is covered with short, soft, white hairs; the space round the eyes being dusky. The neck is very short; and, it's sides are of a dirty yellow, but the hind part, as well as the entire back of the animal, is cowered with soft, uneven hairs, two inches long, the bottoms of which are of a vellowish white, the middle parts black, and the ends whitish. The sides are clothed with dirty and dusky hair; the belly is covered with soft, woolly, dirty white hair; the legs and thighs are black; the feet dusky; and the claws white. The base of the tail is covered with long hairs, like those of the back; but the rest of the tail is covered with small scales: the half next the body is black, the rest white. This tail, which has a disgusting appearance, from it's similitude to the body of a snake, possesses the same prehensile quality as that of some monkies. On the lower part of the belly of the female there is a large pouch; in which the teats are placed, and where the young shelter. 'This species, which inhavits Virginia, Louisiana, Mexico, Brasil, and Piru, is very destructive

## VIRGINIAN OPOSSUM.

destructive to poultry ; sucking the blood, without eating the flesh. It feeds, also, on roots ${ }_{\text {t }}$ and wild fruits. It walks or runs slower than most animals; but, in climbing trees, is very active. It hangs suspended by it's tail from the branches, and swings itself among the boughs of the neighbouring trees, in search of birds and their nests. $\Lambda$ fter killing a small bird, it is said to lay down it's prey in an exposed situation near a tree; then, mounting the tree, to suspend itself by the tail on a branch near the bird, with it's head downwards, and wait patiently till some carnivorous bird comes to carry it off, on which it instantly darts, and thus makes a prey of both. A man may easily overtake this animal ; and, when caught, it feigns itself dead: but, it is not easily killed, being as tenacious of life as a cat. The female makes a warm nest of dry grass, in some thick bush at the foot of a tree ; bringing forth from four to six young at a time, which immediately take shclter in the pouch or false belly, and fasten so closely to the teats as not to be separated withnut diffculty. They are blind, naked, and incredibly small, so as to resemble fretuscs. In
this receptacle, therefore, they continue with a furm adherence to the teats, till they attain a perfect form, strength, sight, and hair; after which, they occasionally run into the pouch, and the mother thus carries them about. During what may he termed the second gestation, the female demonstrates such an excessive attachment to her young, that she will suffer any torture, rather than permit this receptacle to be opened: for, by aid of some very strong muscles, she has the power of opening or closing it at pleasure. M. Le Page du Pratz, in his Histoire de la Louisiane, says that, "the female, when taken, allows herself, without shewing the smallest sign of life, to be suspended by the tail above a fire. The tail adheres of itself; and both the mother and her young thus perish, for no torture is sufficient to make her open her pouch."

The flesh of the old animals is said to resembic, in goodncss and quality, that of a sucking pig; hut the skin is exceedingly foetid. The Indian women dye the hair, and weave it into garters and gindics.




## JAMAICA WOODPECKER.

This bird seems considered, by naturalists in general, as the Picus Carolinus of Linnæus; the Picus Varius Jamaicensis, of Brisson; the Picus Varius Medius, of Sir Hans Sloane; the Picus Varius Medius Jamaicensis, of Ray; the Carolina Woodpecker, of Pennant and Latham; the Red-Bellied Woodpecker, of Catesby; the Variegated Jamaica Woodpecker, of Buffon; and the Jamaica Wood. pecker, of Edwards.

Buffon says, that " this Woodpecker is ot a midalle size, between the Green Woodpecker and the Spotted Woodpecker of Europe. Catesby," he remarks, "makes it too small, when he compares it to the Spotted Woodpecker; and kdwards represents it tow large, in asserting it to be equal in bulk to the Green Woodpecker. 'The same author," adds Buffon, "reckons only eight quills in the tail: but, probably, the two others were wanting
in the subject which he describes; for all the Woodpeckers have ten quills in the tail."

Who would imagine, after seeing the above reflection on Edwards, that there is not, in fact, throughout his whole description, a single syllable of comparison with the Green Woodpecker, in any respect whatever? Iet this is most literally true: nor has Edwards, in his account of the Jamaica. Woodpecker, even mentioned the name of the Green W oodpecker.

What he does say, we shall literally give, as by far the best description of this bird with which we are acquainted.
"t The wing, when closed, is five inches long: the bill, from it's point, to the corners of the mouth, is an inch and a half. In the wing I counted nineteen quills: in the tail, eight feathers; which seemed to me to be perfect, though Willughby says, that Woodpeckers have ten feathers in their tails."

Thus it appears, that Elwards was by no means

## JAMAICA WOODPECKER.

means unapprized, that the Woodpeckers in general have ten tail feathers; but, on view of this bird, found it to contain only eight, though the tail seemed to him perfect. He does not insist that it was so; and this diffident expression is unfairly converted into a positive assertion against him, by Buffon, who is not always very precise in his distinctions.
"The bill," continues Edwards, "is straight, pretty sharp-pointed, and black. It can extend the tongue to a good length; which is pointed and horny at the end, fit to strike insects. 'The fore part of the head, all round the base of the bill, and beyond the eyes, is of a yellowish white. 'The hinder part of the head and neck is of a fine red or scarlct colour. The throat, and breast, are of a dirty olive colour; which, gradually, becomes reddish on the belly, with transverse dusky lines on the lower belly and thighs. The covertfeathers under the tail are marked with dusky and whitish transverse broken lines. The back, upper side of the wings, rump, and tail, we black; with narrow transverse light-brown ines on the back, whiter on the wings, and broarder,
broader, and white, on the rump. The twa outer feathers of the taii have white spots on their outer webs. The inner coverts of the wings are dusky, and white, in a small transverse mixture. The under side of the tail, and the insides of the quills, are of a very dark ash-colour. The inner webs of the quills are barred across wath white. The legs and feet are made, as in other Woodpeckers, with strong claws, all of a black or dusky colour."

Edwards says, that this bird was brous?at. in 1753, from the island of Jamaica, by Dr. Patrick Browne; who obliged him with it, to make a drawing. It is, he remaths, the same that is described by Sir Hans Sioare, in his Natural History of Jamaica: " be:t." savs Edwards, "as Sir Hans had the misimane to meet with a very bad draughteman in Jamaica, to daw his bird', his frgures of them are of little value; for whic: reason, I have thought promer to inake this scooid dawing, which beter sees wan the hemest description my :." $\quad \therefore$.tima and pation lias given
 strifliy so c........ Lume in ticcinam of Jamaica,
maica, either by Sir Hans Sloanc, or Dr. Browne, who has: lately travelled all over the island in search of it's natural productions. 'Though there are a good number of Woodpeckers on the continent of America-Catesby has described about eight different species of them-the nearest to this of Jamaica, though something different, is his Red-Bellied Woodpecker, vol. I. p. 19. of his Natural Histors of Carolina."

Buffon appears, therefore, to be also mistaken, in asserting that, " this bird occurs likewise in Carolina:" as well as in stating that, " notwithstanding some differences, it may be recognized in the Red-Bellied Woudpecker of Catesby."

Yet, into this last error, it may be presumed, not only Buffon, but Limmeus him... self, as well as Pennant and Latham, have all fallen. So, at least, it appears to us, who feel satisfied by the reasoning of Edwards.
" Those," says this exccllent naturalist, "who would see very particular obscrvations
on the motion, \&cc. of the tongue of the Woodpecker, may consult Memoires de l'Academie, $\delta z c$. of Paris, for the year 1709, or the Abridged English Translation, hy Martyn and Chambers. The figures, both in the original, and translation, are very elegant. There is also an account of it's anatomy in the Philosophical Transactions, No. 350. See, also, a figure of the head, and tongue, in Willughby's Ornithology, Tab. xxi. The same structure of the tongue runs through the whole genus of Woodjeckers. The abovementioned Dr. Browne," concludes Edwards, "has given a description of this bird; [See his Natural History of Jamaica, Folio, London 1750 , p. 47t.] but omitted giving a figure, having referred his readers th my Natural History, for the figures of scveral of the birds which he has described."





## FINGER FLOWER, OF NEW SOUTH WALES.

To this elegant flower, which is a production of New South Wales, we have given the appellation of the Finger Flower: not that we can decidedly pronounce it a species of the Fox-Glove, or Digitalis of Linnæus, on a bare inspection of the original drawing, which is all we know, with certainty, respecting the form of this non-descript plant.

If not of the Fox-Glove family, the flowers bcar a not very remote resemblance, in shape, at least, to those of that elegant plant; sufficiently justifying us, as we apprchend, iu calling it the Finger Flower of New South Wales. The flowers are smaller than those of the Common European Fox-Glove, but they are incomparably more beautiful than any known species of that handsome plant.

It is, we are informed, a perennial plant, rising to the height of about three fect; flourishes
rishes in sandy or gravelly 60 i ; and is in full bloom about September, when the flowers emit a most agreeable odour.

If this last circumstance, added to the not very dissimilar form of the flower, should incline some botanists to consider it as allied to the Hyacinth, we shall not be disposed to enter any violent protest against it's claim of kindred with eren that elevated family.

The different specios of the Digitalis are well known to possess ver: strong medicinal powers; but we are yet to learn, whether the Finger Flower participates in these salutary qualities, having been unable to obtain any satisfa\&tory answer to our enquiries on that subject.

THE

## NATURALIST’s POCKET

MAGAZINE;
OR,

COMPLEAT CABINET OF NATURE.

## No XXXVI. CONTAINING,

1. The ASIATIC HEDGEHOG.
2. The PURPLE-BREASTED BLUE MANAKiN.
3. The Yellow fragile Flower.

COLOURED AFTER NATURE.
WITH

DESCRIPTIONS.



## ASIATIC HEDGEHOG.

THIS animal, with the fatc of too maty others, appears to have been very imperfectly described by naturalists. Pennant, who secms to have most particularly described it, has not quoted any Linnæan name: though some late. writers suppose it to be the Erinaceus Laudatus, and others the Erinaccus Setosus, of that great Swedish naturalist; the latter being denominated the Tendrac, and the former the: 'Tantec. Perhaps, Pemnant might be of opinion, with us, that there is too much uncertainty in both these slight accounts of Liisnæus, for either to be hastily adopted, notwithstanding it is sufficiently clear that the Asiatic Hedgehog was meant in one or other of the descriptions.

Buffon describes, together, the Tanrec and the Tendrac, or Asiatic Hadschog, in one combined account: yet he scarcely admits them to be of the Hedgehog race; and, in a note on this article, severely attacks the Lirinaceus Americanus Albus of Seba. " '1 his

## ASIATIC HEDGEHOG.

Hedgehog," says he, "which Seba saỵs was sent to him from Amboyna, has so strong a resemblance to the Tendrac, that it must be the same animal; and, if it be a native of Madagascar, it ought not to be found in America. With regard to this animal, Seba is wrong in every article; for it.neither belongs to America, nor is it white, but only less brown than our European Hedgehog."

In these reflections on Seba, what reader docs not recognize the prejudice of Buffon, who considers this author as a formidable enemy of his favourite system respecting the constant differences between the animals of the old and the new worlds? Whether the charge against Seba be true, or false, the mode of reasoning which Buffon has on this occasion adopted, is palpably fallacious, and altogether unworthy of that great man !

From a comparison of what is said by Buffon, on the subject of our Asiatic Hedgehog, with the description of Pennant, will sufficiently appear, as we apprehend, the foundation on which we have asserted, that much imperfection scems manifcstly to prevail in the ac-
counts given by different naturalists of this curious little animal.
" The Tanrecs, or Tendracs," says Buffon, thus making them synonimous, " are small East Indian animals, which have some resemblance to our Hedgehog, but differ so much from it as to constitute a distinct species. This is apparent, independent of inspection or comparison; for they never roll themselves up into a ball, like the Hedgehog: and, besides, the Tanrecs are found in Madagascar; where there are, also, Hedgehogs of the same kind with ours, which bear not the name of 'Tanrec, but are called Sora. There seems to be two species, or perhaps two races, of Tanrecs. The first, which is nearly as large as our Hedgehog, has a muzzle proportionably longer than the second; it's ears are also more apparent; and it has fewer bristles than the other, to which we have given the name of Tendrac, to distinguish it from the first. This Tendrac is not larger than a large rat. It's muzzle and ears are shorter than those of the 'Tanrec; which last is covered with smaller bristles, but equally numerous with those of

## ASIATIC HEDGEHOG.

the Hedgehog. The Tendrac, on the contrary, has no spines, except on the head, the neck, and the withers; the rest of the body being covered with coarse hair, like a hog's bristles. These small animals, which have short legs, move very slowly. They grunt, and wallow in the mire, like hogs; are fond of water, in which they dwell longer than on land; and are caught in salt water, in canals, and in small gulphs of the sea. They are very ardent in their amours, and multiply greatly. 'They dig holes in the ground, into which they retire, and remain in a torpid state several months. While in this state, their hair falls off; but it grows again after ther awake. They are generally vory fat; and, though their flesh is insipid and reedy, the Indians cat it with pleasure."

The above comprehends all that is said by Buffon on this subiect; but Pennant has far more particularly described the animal which we have delineated.

He calls it the Isiatic Heckehos, the Little Tandeck of Somerat, and the lendrac and

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ASIATIC HEDGEHOG.
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Tanrec of Buffon. It has, he says, " a long' slender nose; short rounded ears; and short legs. The body is marked, longitudinally, with five broad lines of black, and the same of white, which are continued over the shoulders and thighs:- the white marks consist of short spines; the black marks are furnished with long loose hairs, which fall quite to the ground. The head and face are black. It has no tail. The length of the animal is seven inches. M. De Buffon has given the figure of a young one.
" The other, or the Tanrec, is rather larger; covered with spines only on the top and hind part of the head, the top and sides of the neck, and the shoulders: the largest 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 larger than the others.
"Each of these animals, which are varieties, or young of the same species, had five toes on each foot. They inhabit the isles of India,

## ASIATIC HEDGEHOG.

and that of Madagascar; are, when of their full growth, of the size of Rabbits, but those in the Cabinet of the French King were much smaller, being probably young; grunt like hogs; grow very fat; multiply greatly; frequent shallow pieces of fresh or salt water; burrow on land; and lie torpid six months, during which time their old hair falls off. Their flesh is eaten by the Indians, but is very flabby and insipid."





## PURPLE-BREASTED RLUE MANAKIN.

Though, with the figure of this very beautiful bird, we have adopted also the name of Edwards, under which it is likewise described by Pemnant and Latham, we incline to think, with Baffon, that the Manakins, in general, have been too much confounded, by naturalists, with other tribes; and that this bird, in particular, is in reality rather a Cotinga than a Manakin.
"These birds," says Buffon, speaking of the Manakins, " are small, and handsome: the largest are not equal in size to a sparrow, and the others are inferior to that of a wren. The general characters are these: the bill is short, slender, and compressed on the sides near the tip; the upper mandible is conves above, and slightly scalloped on the edges, rather longer than the lower mandible, which is plain and straight. In all these birds, the tail is short, and square-cut; and the tocs have the
same disposition as the Cock of the Rock, the Tody, and the Calao: viz. the middle toe is closely connected to the outer toe by a membrane, as far as the third joint, and the inner toe as far as the first joint only. But, as much as in that circumstance they resemble the Cock of the Rock, so much are they removed from the Cotingas: yet some authors," says Buffon, naming Edwards, in a note, as an instance, " have ranged the Manakins with the Coingas; others," instancing Klein, " have joined them with the Sparrows; Linnæus with the Titmice; Klein, again, with the Linnets; Marcgrave, Willughby, Johnston, Salerne, and others, with the Tanagres; and Gerini, with the Wren. Other nomenclators, are more culpable, for denominating them Pipra, or for classing them with the Cock of the Rock," as is done by Brisson; " to which they bear no analogy, except in this disposition of the toes, and in the square shape of the tail: for, besides the total disproportion in size, the Cock of the Rock being as large, compared with the Manakins, as the Common Hen contrasted with a Sparrow, there are many other obvious characters which distinguish
tinguish them. Their bill is much shorter in proportion; they are, generally, not crested; and, in those which have a crest, it is not double, as in the Cock of the Rock, but formed by single feathers somewhat longer than the rest. We ought, therefore, to remove from the Manakins, not only the Hornbills, but the Cock of the Rock, and reckon them an independent genus."

To this account of the Manakins, we shall add Buffon's general description of the Cotingas. "Few birds have such beautiful plumage as the Cotingas; all those who have had an opportunity of seeing them, whether travellers or naturalists, seem to have. been charmed, and speak of them with rapture. Nature has selected her choicest and her richest colours, and spread them with elegance and profusion: the painting glows with all the tints of blue, of violet, of red, of orange, of purple, of snow-white, and of brilliant black. Sometimes, these tints melt into each other by the sweetest gradations; at others, they are contrasted with wonderful taste: the various reflexions heightening and enlivening
enlivening the whole．The worth is intrinsic ： it is expressive；it is inimitable！All the spe－ cies－or if we chuse，all the branches－of the brilliant family of the Cotingas，belong to the New Continent；and there is no foundarion for what some have alledged，that they are found in Sencgal．They appest to deiight in warm countries：they seldom ofcur south of Brasil，or roam north of Mexico；and，conre－ quently，they would hardly traverse the im ． mense stretch of ocean that separates the con－ tinents in those latitudes．All that we know of their habits is，that they never ferform distant journies；but have only periocical flit－ tings，which ate confined within a narrow circle：ther anpear swice a rear in the planta－ tions；and，thourh they all arrive nearly at the same time，they are never observed in flocis．They generally haunt the sides of crecks，in swampy ground，which has occasi－ oned some to eall them water－fowls：and Mr． Edwards，who was unacquainted with the deconiny of the Coliagas，conjectured，from the stucture of tincir feet，that they frequented marshes．They find，among the aquatic glants，abundance of inseit：，on which the：
feed；
feed ; and, particularly, what are termed Karias, in America; and which, according to some, are wood-lice; and, according to others, a sort of ants. The Creoles, it is said, have more motives than one, for hunting after these birds: the beauty of the plumage, which pleases the eye; and, according to some, the delicacy of the flesh, which delights the palate. But it is difficult to obtain both: for the plumage is often spoiled in attempting to skin the bird; and this, probably, is the reason why so many imperfect specimens are now brought from America. It is said, that they alight among the rice crops, and do considerable injury; if this be true, they have still another reason for destroying them. The size varies in the different species, from that of a small Pigeon to that of a Redwing, or even under. In all of them, the bill is broad at the base: the ellges of the upper mandible, and often those of the lower, are scalloped near the tip. The first phalanx of the outer toe is joined to the middie toe ; and, lasty, in most of them, the tail is a little forked, or notched, and consists of twelve quills.

Our Purple-Breasted Blue Manakin of Edwards, is said to be, in fact, the Ampelis Cotinga of Linnæus, and the Cordon Bleu, of Buffon. It is called the Thrush of Rio Janeiro, and the Creoles term it the Hen of the Woods. Buffon says, that 's a bright blue is spread on the upper part of the body, of the head, and of the neck, on the rump, the superior coverts of the tail, and the small coverts of the wings: the same colour appears, also, on the inferior coverts of the tail, the lower belly, and the thighs. A fine violet purple covers the throat, the neck, the breast, and a part of the belly as far as the thighs; and on this ground is traced, at the breast, a belt of the same blue with that of the back, and which has procured this bird the appellation of Blue Riband, or Knight of the Holy Ghost. Below the first belt, there is, in some subjects, another of a beautiful red, besides many flamespots on the neck and the belly: these spots are not disposed regularly, but scattered with that negligence in which nature seems to delight, and which art labours in vain to imitate. All the quills of the tail, and of the wings, are black; but those of the tail, and the mid-

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PURPLE-BREASTED BLUE MANAKIN.
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dle ones of the wings, are edged exteriorly with blue. The female has neither of these belts; nor has it the flame-spots on the belly and breast. In every other respect, it resembles the male. The bill and legs of both are black. The tarsus is covered behind with a sort of down. "At Cayenne," says Salerne, " there are two other Thrushes, which resemble this exactly; except that the one wants these spots, and the other the Blue Riband."

The bird figured by Edwards, was brought to England by Commodore Mitchel, who went with Lord Anson on his expedition round the world. Edwards conjectures, "that it was taken in some latitude of South America, nearly parallel to that of Surinam ; having had several birds of this family, as he considered them, though smaller, most of which were brought from Surinam. "The bill," says Edwards, " is black, and rather slender than thick; a little arched on the top, and inclining somewhat downwards at the point. 'The top and sides of the head, upper side of the neck, back, rump, thighs, lower belly, and covert-feathers both above and beneath the tail, are of the finest blue that

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PURFLE-BREASTED SLUE MAN゙AKIN.
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can be conceived by the imagination, clouded with a little black on the crown of the head, in the middle of the back, and on the feathers between the back and wings: there is, also, a small border of black round the upper mandible of the bill. All the fine blue feathers have their bottoms of a hlack or dusky colour: the throat and breast are of an exceeding fine zeddish purple colour; the pottoms or downy part, of these purple feathers, are quite white. The wings are black; except the lesser covert feathers, which are blue. The inner coverts of the wings are black; the insides of the quills are dusky. The tail, legs, feet, and ciaws, are all black. The outer toe in each foot is joined to the middlemost toe, as in King-Fishers."

Edwards, who was an accurate observer, and a most cxact delineator, affords not the smallest hint of the Rlue Riband appearance, on which Buffen creets his now rame of this bird: and, ateer all, cu: Purple-Dieased Manakin may bos:thy be une of the other birds mentioned by Salerne, as found at Caveme, and not Buffon's more than in one scnise presumptuously named hinght of the LJoly Ghost.


FERIOW FRACIV. FLOWER.


## YELLOW FRAGILE FLOWER.

THIS handsome flower is a native of New South Wales, where the original drawing was made of the natural size, being somewhat more than twice as large as we have represented it in the annexed figare.

All the information which we have received is, that it is a very humble flower, and foume plentifully in sandy or rocky situations; and, that it is so excessively tender in the yellorv leaves, as to fall off almost constantly on removal.

To this last circumstance, it obviously owes the name by which we have distinguished it. In this property, however, it only resembles many known common European flowers; and, among others, the large common Butterflower; to which it is in other respecis somewhat similar, though certainly a more grand and beautiful plant.

THE

## NATURALIST's POCKET

## MAGAZINE; <br> OR,

## COMPLEAT CABINET OF NATURE.

No XXXVII.

CONTAINING,

1. The LLAMA.
2. The NUTCRACKER.

3: The PURPLE SHELL FLOWER.

COLOURED AFTER NATURE.

WITH
DESCRIPTIONS.

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## LLAMA．

IT is observed by Buffon，that 6 in all lan－ guages，two names are frequently bestowed on the same animal；one of which relates to it＇s state of liberty，and the other to it＇s do－ mestic state．The Wild Boar，and the Hog， are the same animal；and these two names have no relation to any difference in the na－ ture of the creatures，but to the condition of the species，one part of which is under the dominion of man，and the other independent． The same remark，＂says Buffon，who treats of the Llamas，and the Pacos，under one ge－ neral head，＂applies to the Llamas and Pacos， which were the only domestic animals of the ancient Americans．These names were ap－ propriated to them in their tame state：the Wild Llama was called Huanacus，or Gंua－ naco；and the Wild Pacos，Vicuna，or Vi－ gogne．I thought this remark necessaiy．，＂ adds Buffon，＂to prevent confusion．＇These animals are peculiar to the New World ：they even love particular lands，beyond which they
are never found. They appear to be confined to that chain of mountains which extends from New Spain to Terra Magellanica: they inhabit the most clevated regions of this globe; and seem to require a lighter air than that of our highest mountains." It is with no great regard to consistencty, that we afterwards find Buffon asserting, that "these animals might be rendered extremely useful to us; for," says he, "it is probable, that they would thrive on our Alps and Pyrences, as well as on the Cordelieres:" and, as if this were not sufficient, he repeats, for it seems to be a favourite idea, "I am persuaded, as I formerly remarked, that these animals might succeed in our mountains, and particularly in the Pyrenees. Those who brought them to Spain, did not consider that, even in Pere, they subsist only in the cold region, or on the tops of the highest mountains; that they are wever found in low lands; and that they die in warm countries: that, on the contrary, they are at present very numerous in the neighbourhood of the Straits of Magellan, where the cold is much more intense than in the Soutio of Europe; and consequently that, in order to pre-
serve them, they should be landed, not in Spain, but in Scotland, or even in Norway. The foot of the Pyrences, Alps, \&c. would probably answer the intention still better, where they could climb to the region which was most agreeable to their constitution. I have dwelt the longer on this subject," he concludes, "because I imagine that these animals would be a great acquisition to Europe, and productive of more real advantage than all the metals of the New World; which only load us with a useless weight, since a grain of gold or silver was formerly equal in value to what now costs us an ounce of these metals."

Though Buffon thus treats the Llama and Pacos as only two species, Linnæus has divided them into five: the Camelus Glama, or Llama; the Camelus Huanacus, or Guanacs: the Camelus Araucanus, or Chilihueque; the Camelus Vicugna, or Vicugna; and the $\mathrm{Ca}-$ melus Paco, or Pacos. Pennant, who pursucs a similar arrangement, describes them ail as Camels of America; under the names of the Llama, the Vicunna, the Paco, the Gua-
naco, and the Chilihueque; he observes, that " Molina, who had frequent opportunity of seeing these animals in their native country, assures us, that the Llama differs specifically from the Guanaco." From the same authority, he states, that the Pacos and the Vicunna, are both found on the mountains of Peru, in a state of nature, but never mix together; which "destroys the opinion M. De Buffon had, that the Paco and the Vicunna were the same animal, and that the first was only a Wild Vi cunna." It may seem trivial to notice the mistake of Pennant; who should have said, instead of a Wild Vicunna, a tame or domesticated one, which is the true sense of Buffon.

Without pursuing a discussion, which would carry us much too far, we shall endeavour to confine our present attention to the Llama: observing, however, that Buffon, who admits, between the Llama, and the Pacos, a distinction exactly similar to that between the Horse and the Ass, seems to us but little warranted in uniting their descriptions.

The Llama, or Camelus Glama of Lin-
næus,
næus, is the Camel of Peru. It has an almost even back, a small head, and fine black eyes. It's neck, which is very long, bends greatly : and, on the breast, there is a considerable protuberance, kept naturally moist, near the junction with the body, by a greasy exudation. In a tame state, it is cloathed with smooth short hair; but, when wild, the hair is long and coarse. The colours vary greatly. Father Blas Vallera, whose account seems to be adopted by Buffon, as he remarks that the cattle of Peru are divided into a large and a smaller kind, and so mild, that children use them as they please, says that the tamed Hua-nacus-or Llamas, as he evidently meansare of different colours, and the wild kind are all of a bay brown. "These animals," he adds, " are about the height of a stag; and resemble the Camel, only they want the bunch, and their neck is long and smooth. Buffon says, the Llama is about four feet high; it's body, including the neck and head, being five or six feet long. The tail is very short, not exceeding eight inches. The ears, which the animal moves at pleasure, are four inches in length. It has no cutting or canine teeth
in the upper jaw. The upper lip is divided like that of the hare; and, from this aperture, the creature spits in the face of those who offend it, to the distance of ten paces, with a saliva so acrid, that it inflames or blisters the skin. The feet are not only cloven, like those of the ox; but they are armed behind with a spur, which assists the animal in supporting itself on rugged and uneven ground. The wool, or hair, on the back, crupper, and tail, is short; but, on the flank and belly, it is very long.
'Through the whole extent of Peru, from Potosi to Caracas, these animals are extremely numerous: their flesh is good eating; their wool is excellent; and their whole lives are spent in transporting the commodities of the country. Their common load is a hundred and fifty pounds; they march slowly, and scldom go more than four or five leagues a day. They descend precipitous ravins, and climb stecp rocks, where even man feats to venture. They are much employed in carrying the rich ores dug out of the mines of Potosi. Bolivar remarks that, in his time, three hundred thousand of these animals were constantly occupied in this work.

The growth of the Llama is quick, and it's life not long. At three years of age it produces; continues in full vigour till twelve; and, at fifteen, is entirely useless. When inclined to rest for a few minutes, during it's journey, it bends it's knees, and lowers it's body, with the greatest precaution, to prevent any derangement of it's load; and, rising at the sound of the conductor's whistle, with the like care, proceeds on it's journey. While sleeping, or ruminating, it rests on it's breast, with it's legs folded under it's belly. Some are left unloaded, that they may instantly relieve those which begin to be fatigued; for, if a Llama once sinks down with the fatigue of it's burden, blows will not force it to rise: the only resource is, that of squeezing the testicles, which often proves ineffectual ; and if chastisement be brutally persisted in, it at length, in despair, strikes it's head on the ground, alternately from right to left, till it kills itself.

These animals experience much inconvenience, from the peculiar structure of the sexual organs. The female has only five teats, and seldom produces more than a single young one, which follows her the instant it has birth.

## LLAMA.

Pennant remarks, that " their bodies are covered with fat between the skin and the flesh, and they abound with blood; both requisite to preserve warmth in their frozen residence." The wild animals herd together in the highost and steepest parts of the hills; and, while they are feeding, one keeps sentry on the pinnacle of some rock: if it percejves the approach of any one, it neighs nearly like a horse; when the herd takes the a!arm, and goes off with incredible speed. "They out-run all dors, so that there is no other way of kiling them than with a gun. 'Their flesh is eaten; with their skin, the Indians make sules to their shoes, and the Spaniarts fine harnesses for their horses; and their hair is wove into a rich cloth. In a domestic state, they are peculiariy valuable: their food costs scarcely any thing; their cloven feet prevents the necessity of shoeing; and they are never saddled. The thickness of their long woolly hair prevents them from being incommoded by their burden, which the owner takes care not to place on the hack bone, woll knowing that it woud certainly kill them.

$\because!\cdots!!!!!!?$


## NUTCRACKER.

The Nutcracker, or Corvus Caryocatactes of Linnæus, was unknown to the Greeks, though it has reeeived the Greek name Kasuo-
 or destroy. In Latin, it is called Nucifraga, or Nutbreaker; Ossifragus, or Stonebreaker: and, by some, Turda Saxatilis, or the Stone Thrush; Pica Abietunn Guttata, or the Speckled Pine Magpye. The Turks call it Gurga; the Russians, Kostohryz; the Poles, Klesk, Grabulusk; the Germans, Nussbretscher, or Nutbreaker, Nuskraehe, or NutCrow, Tannen-Heyer, or Fir-Jay, SteinHeyer, or Stone-Jay, Wald-Starl, or WoodStare, and Turkischer Holst-Schreyer, or the Turkish Forest-Brawler; and the French, Pic Grivelée. Aldrovandus names it Merula Saxatilis; and Willughby calls it the Caryocatactes of Gesner and Turner, but, as Edwards ohserves, Gesner has added the mame Nucifraga in his Nomenclator de dvibus.

Buffon, who calls it the Casse Noix, or
Crackea

Cracker of Nuts, says that it is distinguished from the Jays and Magpies by the shape of it's bill; which is straighter, blunter, and composed of two unequal pieces. It's instinct is also different; for it prefers the residence of high mountains, and it's disposition is not so much tinctured with cunning and suspicion. However, it is closely related to these two species of birds; and most authors, not fettered by their systems, have ranged it with the Jays and Magpies, and even with the Jackdaws, which are well known to bear a great analogy to the Magpies. But, remarks Buffon, it is asserted, that it chatters more than any of these.

Klein distinguishes two varieties of the Nutcracker: the one, speckled like the Stare, has a strong angular bill, and a long forked tongue, as in all the Magpies; the other is of inferior size, and it's bill-for he says nothing of the plumage-is sicnderer, more round, and composed of two unequal mandibles, the upper being longest, and it's tongue, which is divided deeply, is very short, and almost lost in the throat. Both birds eat hazel-nuts; but the
former breaks them, and the latter bores them. These birds also feed on acorns, wild berries, the kernels of pine-tops, and even insects ; and, like the Jays, the Magpies, and the Daws, they conceal what they cannot consume.
" The Nutcracker," says Buffon, " is remarkable for the triangular white spots which are spread over it's whole body, except the head. These spots are smaller on the upper part, and broader on the breast; their effect is the greater, as they are contrasted with the brown ground. 'These birds are most attached to mountainous situations. 'They are common in Auvergne, Savoy, Lorraine, Franche-Compté, Switzerland, the Bergamasque, and in the Austrian mountains covered with forests of pine: they occur, also, in Sweden, though only in the southern parts of that country, and rarely elsewhere than in Smoland. Gerinire marks, that they are never seen in Tuscany. The common people in Germany, call them Turkey birds, Italian birds, or African birds; which language only means, that they are foreign." Just as, in England,

## NUTCRACRER.

land, Buffon might have added, the vulgar call every foreigner a Frenchman.
"Though the Nutcrackers are not birds of passage," observes Buffon, " they fly sometimes from the mountains to the plains. In 1754, great flights of them entered France; particularly, Burgundy, where there are few pines. They were so fatigued on their arrival, that they suffered themselves to be eaught by the hand. One was killed, in the October of that same year, at Mostyn, in Flintshire, which was supposed to have come from Germany. We may remark, that this year was exceedingly arid and hot, which must have dried up most of the springs, and much affueted those fruits on which the Nutcrackers usually feed. Besides, as they seemed, on their arrival, to be famished, and were caught by almost every sort of bait, it is probable that they were constrained to abandon their retreats by the want of subsistence.
"One of the reasons, it is said, whe the Nutcrackers do not settie and breed in the inviting climates, is the perpetual war waged against
against them by the proprietors of the woods, for the injuries which they commit on the large trees, by piercing the trunks, like the Woodpeckers; part are, therefore, soon destroyed, and the rest forced to seek an asylum in the desart unprotected forests. Nor is this the only circumstance in which they resemble the Woodpeckers. They nestle, like them, in holes of trees, which perhaps they have themselves formed," observes Buffon; and in which case, he might have added, they are literally Woodpeckers: " the middle quills of the tail being also even near the end, which demonstrates that they, as well as the Woodpeckers, clamber on trees. In short, Nature seems to have placed the Nutcrackers between the Woodpeckers and Jays; and it is singular, that Willughby has given them this precise arrangement in his Ornithology, though his description suggests no relation between these species. The irides of the Nutcracker are of a hazel colour; the bill, the feet, and the nails, are black; the nostrils are shaded with whitish feathers, straight, stiff, and projecting; the feathers of the wings and tail are blackish, without spots, but terminated for the most part
with white. There are, however, some varieties in the different individuals, and in the different descriptions; which seems to confirm the opinion of Klein, with regard to the two races, or varieties, which he admits into the species of the Nutcrackers.
"We cannot find," adds Buffon, " in writers of natural history, any details with respeet to their laying, their incubation, the training of their young, the duration of their life, \&c. for they haunt inaccessible spots, where they enjoy undisturbed safety and felicity."

It is singular, that Buffon has given to the Pipra-Manacus of Linnæus, or Black-Capped Manakin of Edwards and Latham, the name of Cassenoisette, or the Nutcracker; "because the cry of that bird is exactly like the noise made by the small iustrument with which we crack nuts."

C




## PURPLE SHELL FLOWER.

THIS elegant little flower is represented nearly of the natural size. It is a native of New South Wales; where it is said to spring up spontaneously, in the warmer seasons, and to be abundantly found in all soils. This spontaneous growth, however, can cnly be philosophically considered, as arising from seed previousty scattered by the hand of Na ture, without the interference, or particular obscrvation, of human art: since the doctrine of spontaneous productions has been long since universally exploded.

The beauty and simplicity of this plant is very peculiar; not only from the triangular form, and chaste colouring of the flower, but it's pleasing shell-like appearance, which has induced us to denominate it the Purple. Shell Hlower: a name which speaks to the imagination, at least, of every bcholder, a language more forcible than many of the austere terms given by the rigid botanist to simple produc-
tions of the vegetable world. The plant certainly wears a conchiferous appearance: and, to this circumstance it owes the appellation by which we have thought proper to distinguish it; as we received this drawing, with many other exact delineations of subjects from New South Wales, unaccompanied by any mame whatever.

We may here remark, that it has repeatedly struck intelligent persons, on viewing our collection of drawings from the plants of New South Wales, that numbers of them, and this is certainly one, have a great resemblance to those fanciful flowers which are frequently manufactured by the ingenious artificial Horists of Lurope; some of which were, formerly, very often composed of shells.

## THE

## NATURALIST's POCKET

## MAGAZINE;

OR,

COMPLEAT CABINET OF NATURE.

## Ne XXXVIII, CONTAINING,

1. The CROCODILE.
2. The GOLD-BREASTED BIRD OF

PARADISE.
3. The ANGEL FISH.

COLOURED AFTER NATURE.

WITH
DESCRIPTIONS.



## CROCODILE.

THIS grand, fierce, and terrific animal, though it has four feet, seems to be rejectcd, by most naturalists, from the quadruped race; and placed at the head of a distinct class, under the general appellation of the Lizard kind. That there is much similarity between the Crocodile and the Lizard, as far as relates to their general forms, cannot possibly be disputed: but it is equally unquestionahle that. in many particulars of even their respective conformations, there exists great manifest and essential distinction; to say nothing of their habits and qualities, where still greater differences prevail. Nor can we omit to notice, on this occasion, the impropriety of taking the name of a class, or genus, from the minor species, instead of the major; and calling that the Lizard tribe, which should, in fact, if the affnity be allowed, have rather been denominated the Crocodile tribe: for, aware as we are, that the same thing is done with respect to several other generical classes, we are decide ily of opinion, that it forms a vice in matural history. The difficulty, indeed, of assigning
proper stations to the Crocodile and Lizard, in any regular system, has so far cartied great men into opposite extremes, that Ray exalts them both among Quadrupeds; while even the acute Linnæus, by placing them among Serpents, degrades them into the rank of Reptiles. Brisson positively calls them, in spite of their four legs, a distinct class of Reptiles; while Klein, on the other hand, denominates them Naked Quadrupeds. In short, from their scaly covering, and attachment to the water, some have given them to the Fishes; while others have even classed them with Insects. I'r this last class, the ingenious Goldsmith seems willing to place the smaller kinds of Lizarids; but he feels sensible of the absurdity, when he comes thus to marshal the Crocodile, exclaining-" a Crocodile would be a terrible insect, indeed!"

When we consider, that Crocodiles are often thirty feet in length, and some Lizards not more than a single inch; if size, alone, were any rule in arrançing the productions of nature, which it certainly is not, we might wonder, with Soba, how they ever came to be classed sorether. Ofter Iwat pecies there is scarcely
any end ; they have many different forms, and hues yet more diversified: while the Crocodile has hardly any varicties. The Americans usu ally call their Crocodile the Alligator; by some it is named the Cayman; and, in Brasil, Jacere. Still it is the same animal of different climates, with much less variation than climate alone commonly occasions. It is pretended, by some, that the body of the Alligator, or Crocodile of the western world, is not so slender as that of the African and Asiatic Crocodile; that it's nose, instead of resembling that of a greyhound, is indented like the nose of a lapdog; that it's swallow is not so wide; that it's colours are dasker, being black varied with white ; and, lastly, that it is less mischicvous. 'These distinctions, however, by no means prevent the Crocodiles of $\Lambda$ frica, of $\Lambda$ sia, and of America, from being fainly included under one general description.

The Crocodile is unknown in every part of Europe; but inhabits most great rivers, and extensive lakes, in the other thrce quarters of the globe. 'The Nile has always been famous for Crocodiles; and the Niger, and River of the Amazons, are said to produce them in
still greater numbers, as well as of larger size. In America, though they are largest and most numerous in the torrid zone, the continent abounds with them ten degrees more north.

From the magnitude, strength, and terrific appearance, of this formidable amphibious animal, it has often been noticed by ancient and modern travellers; but few have contented themselves with publishing no more than they knew. They beheld the Crocodile under certain prejudices ; and have related, without sufficient discriminations, not only what they perceived, but what they had heard and read: and thus is the task of presenting a faithtol and consistent history and description of this wonderful creature, like that of many other curious and interesting subjects in nature, rendered prodigiously difficult; which might lie accomplished with much case, and a far superior degree of satisfaction, were circumspeetion and precision ahways duly regarded by original observers.

The Crocouile, when at it's largest growth, appears to be from twenty to thirty feet long : in northern situations, it seldom excceds haif
that length. It's thickness, in the middle of the body, is from the bulk of a man to that of a horse. The colour of the scales, or mail, with which it is covered, is sometimes a dark or dusky brown, with an admixture of grey; sometimes a reddish ycllow; and sometimes almost black: the under sides, including the tail, and insides of the limbs, being of a whitish citron, spotted on the sides, similar to the scales of the upper parts. Artists, however, availing themselves of the Lizard varieties, not unfrequently attire the Crocodile in green, green and yellow, \&c. according to the caprice of their respective fancies. Even our Green Dragon, the boasted victim of St. George, tutelar champion of England, has probably no. other origin than the Crocodile.

Catesby observes, that this animal cannot be more terrible in it's aspect, than it is formidable and mischievous in it's nature: sparing neither man nor beast which it can surprize; but pulling them under water, to kill them, that it may with greater facility, and without struggle or resistance, devour them. As these, however, do not often come in it's way, it chiefly subsists on fish. In South Carolina,

## CROCODILE.

being of an inferior size, it rarely attacks men or cattle, but is a great devourer of hogs. "This destructive animal," Catesby adds, " by the close connection of the joints of it's vertebre, can neither swim nor run any other way than straight forward; and is,consequently, disabled from turning with that agility which is requisite to catch it's prey by pursuit. It does it, therefore, by surprize, in the water as well as by land: for effecting which, nature seems in some measure to have fecompensed it's want of agility, by giving it a power of dereiving and catching it's prey with a sagacity peculiar to itself, as well as by the outer form and colour of it's body, which on land resembles an old dirty $\log$ or tree, and in the water, where it frequently lays floating on the surface, it has a similas appearance; through which, and it's silent artifice, fish, fowl, turtle, and all other animals, being deceived, are suddenly caught and devoured."

From what has been said respecting the Crocodile's want of agility in turning; some have roundly asserted, that it could not turn at 211: while others, convinced that it must be capable of turning, from the very iature of it's structure,

## CROCODILE.

structure, have taken the opposite side, and maintained that it wheels about with the utmost alertness; which is, perhaps, equally remote from the truth. 'That it usually runs, or swims, in a right line, seems to be the fact; but it appears equally true, that it can turn, at pleasure, either on land or in the water, though with abundantly most celerity in it's favourite element. It preys, however, at land, where it pursues animals which it has wounded in the water; and, during inundations, enters cottages, and attacks all it finds. ' 'igers, \&c. allured by their ardent thirst to the haunts of the Crocodile, often maintain terrible conflicts, but seldom escape. Yet Labat asserts, that it is by no means uncommon for a negro, with only a knife in his right hand, and a cow's hide round his left arm, boldly to attack the Crocodile, even in it's awn element. By the Siamese it is taken alive in nets; rendered motionless with loss of blood; and afterwards tamed, for the diversion of the eastern grandees. Nor is Siam the only place where the Crocodile forms an object of savage grandeur; for ${ }_{2}$ at Sabi , on the Slave Coast, Philips says, there are two ponds near the royal palace, for breeding Crocodiles, just as carp are bred in Europe.

In the amphitheatre of ancient Rome, the Crocodile was one of the various conflicting animals. Of it's powers, some idea may be formed, from the following description of a horrid combat between two Crocodiles, which was seen, at a small distance, by Bartram, the American Traveller. "Behold him," says he, "rushing forth from the flags and reeds: His enormous body swells. His plaited tail, brandished high, floats on the lake. The waters, like a cataract, descehd from his opening jaws. Clouds of smoke issue from his dilated nostrils. The eath trembles with his thunder; when, immediately, from the opposite coast of the lagoon, emerges from the deep his rival champion. They suddenly dart on each other. The boiling surface of the lake marks their rapid course, and a terrific conflict commences. They now sink to the bottom, folded together in horrid wreaths. The water becomes thick and discoloured. Again they sise ; théir jaws clap together, re-ecchoing through the deep surrounding forests. Again they sink; when the contest ends at the muddy bottom of the lake, and the vanquished makes a hazardous escape, hiding himself in the muddy turbulent waters, and sedge, on a distant shore.
shore. The proud victor, exulting, returns to the place of action. The shores and forests resound his dreadful roar; together with the triumphing shouts of the plaited tribe around, witnesses of the horrid combat."

Our friend Bartram afterwards describes a Crocodile spectacle of still superior horror. "How," exclaims he, " shall I express myself, so as to convey an adequate idea of it to the reader, and at the same time avoid raising suspicions of my veracity; should I say, that the river, in this place, from shore to shore, and perhaps near half a mile above and below me, appeared to be one solid bank of fish, of various kinds, pushing through this narrow pass of St. Juan's into the little lake, in their return down the river ; and, that the Crocodiles were in such incredible numbers, and so close together, from shore to shore, that it would have been easy to have walked across on their heads, had the animals been harmless! What expressions can sufficiently declare the shocking scene that for some minutes continued, while this mighty army of fish were forcing the pass! During this attempt, thousands - I may say, hundreds of thousands-were caught

## CROCODILE.

and swallowed by the devouring Crocodiles. The horrid noise of their closing jaws; their plunging amidst the broken banks of fish, and rising, with their prey, some feet upright above the water; the floods of water and blood rushing out of their mouths; and the clouds of vapour issuing from their wide nostrils; were truly frightful."

Catesby says, " it is to be adinired, that so vast an animal should at first. be contained in an egg no bigger than that of a turkey." The female, according to Bartram, lays a floor of tempered mortar on the ground, composed of mud, grass, and herbage, on which she deposits a layer of eggs; ami, on this, a stratum of mortar seven or eight inches thick, and then another layer of eggs: and, in this manner, from day to day, one stratum above another, till she has formed a nest or hillock, in the form of an obtuse cone, or hay-cock, four feet high, and four or five feet diameter at the base, containing from one to two hundred eggs. These are hatched by the heat of the sun; "or, perhaps," remarks Bartram, "t the vegetable substance, mixed with the earth, being acted on by the sun, may cause a
small degree of fermentation, and so increase the heat in those hillocks." He is of opinion, that the female carefully watches her nest : for he is positive, that the young are not left to shift for themselves; having had frequent opportunities of seeing the female Crocodile lead about her young ones, which whine and bark like puppies, just as a hen does her brood of chickens. He admits, that few of a brood live to their full growth, because the old feed on the young as long as they can make prey of them. He mentions, however, having seen a female, with a long train of young ones swimming after her. 'The eggs are esteemed delicious; and the Egyptians worshipped the Ichneumon for destroying them. But no enemy is so fatal to the fecundity of the Crocodile as the Gallinazo Vulture ; which watches the female, from among the trees, and tears up her eggs the instant she retires. The flesh, which is eaten by the Indians, is delicately white; but tastes and smells powerfully of musk. Catesby says that, in Carolina, Crocodiles lay torpid from October to March, in caverns and hollows; and, at their coming out in the spring, make a hideous bellowing noise. Their longevity, according to Aristotle, equals that of man.

## CROCODILE.

The annexed print represents a young Crocodile, in the possession of Mr. Michel, of Dover Screet. It is three feet long, preserved in spirits, quite perfect, and bends with the greatest facility. The jaws open at right angles ; in consequence of a thick corrugated skin, which stretches with the action. The tongue adheres immoveably in the middle, but may be raised up all round the edges. The ears are a sort of long, straight, horizontal lines, parallel with the eyes, and covered with an elastic skin, which draws up, and discloses the orifice ; being, like the eyes, guarded above with protuberant scales. The eyes are small, and covered with a nictitating membrane. The fore feet have five, but the hind feet only four, toes: the two outer toes, on each fore foot, it is remarkable, have no claws or nails; all the rest have strong black claws, slightly incurvated. The general colour is a dusky, but not dark, yellowish brown, on ti.e upper parts of the body ; and, on the insijes of the limbs, and all the under parts, a lustrous yellowish white. The protuberant scales, or pieces of mail, are every where spotted, or clouded, with blotches of a dark hue; which probably darkens with age in the living animal.




## GOLD-BREASTED BIRD OF PARADISE.

THIS beautiful and curious bird is the Paradisea Aurea of Gmelin ; the Sifilet, or Manucode with Six Filaments, of Buffon; the Golden-Throated Bird of Paradise of Sonnerat ; and the Gold-Breasted Bird of Paradise, of most other naturalists. It appears to be peculiarly scarce; even Sonnerat saw not the bird alive, and Buffon acknowledges his description to have been taken from a mutilated subject without either feet or wings.

We learn from Sonnerat, to whom we owe both our figure and description, that this bird, which is nearly the size of the common Dove, has a beautiful tuft of feathers springing from the upper mandible, black at the base, and the rest black and white intermixed. Tho upper part of the head, the checks, and berintning of the throat, are of a fine black, shacicd with violet. Behind the head, there is a gol! coloured band, similar to the plumage, of the neck and breast; which is composed of lons
narrow feathers, black at their roots, of a reddish cast upwards, and terminating in golden tips, but so thick as to present externally only a gold colour, varying in it's lustre with reflections of green, red, or violet, and sometimes all together, according to the degrees of light and shade in which the bird is viewed. 'The back is a deep black, with a slight tinge of violet; and the tail and wings, which are also black, have a velvet gloss. From the under part of the wings proceed long black feathers pointing upwards, which embrace the wings when closed: the beards of these feathers are not united, but separated like those of the ostrich. This bird is most peculiarly distinguished from all others of the genus, by three long filaments, which spring from each side of the head, and extend to a fourth part of the length of the tail, terminating in oval webs. 'These are entircly black; and the shafts, on a minute inspection, appear slightly bearded on one sidc. They are, at their origin, very close to cach other; but, diverging into an angular furm, become distant at their extremities. 'The bill is of a clear black, and the irides are ycilow. The legs and feet are also black.


## ANGEL FISH.

This beautiful fish was deposited by the late Capt. Cook, in the Leverian Museum; having been thus named by that great circumnavigator, who had caught it during one of his voyages to the South Seas.

Though the figure, which is accurately delineated, will afford a better idea than any description, it may not be improper to observe, that the body of this fish, which is about fourteen inches long, and ten wide, is wholly of a very dark olive green; except the centre, which is of a deep yellow. The tail, as well as the small fins behind the gills, is of a deep orange red, tipped with yellow ; and the larger fins, the biggest of which is on the back, are of a dark olive green, similar to that of the body.

The appellation of the Angel Fish has been given by many naturalists to a very different species, the Squatina of Pliny, and known
also by the name of the Monk Fish. But neither in it's form, nor it's habits, are we enabled to trace the propriety of such a divine application of that fierce and voracious creature, unless we are to look for it's prototype in the fallen host of angelic beings: for it is universally described as having peculiar malignancy in it's aspect; the eyes being oblong, placed lengthway in the head, and overhung by a skin. It grows sometimes to nearly a hundred weight; preys chiefly on flat-fish; and tears, in a terrible manner, such fishermen as incautionsly lay hold of it. Perhaps, the intellizent reader, if he agree with us, respecting it's claim to the appellation of angelic, may also, with us, discover a stronger analogy to the Monk, than to the Augel, in these characteristic traits; without adverting to the cowl-like appendage which veils the eves, and from which it more obviously appears to have derived at's canonical denomination.

## THE

## NATURALIST's POCKET

MAGAZINE;
or,

COMPLEAT CABINET OF NATURE.

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\begin{aligned}
& \text { No XXXIX. } \\
& \text { containing, }
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1. The GRUNTING OX.
2. The INDIAN BUSTARD.
3. The SCARLET WOODBINE, OF NEW SOUTH WALES.


COLOURED AFTER NATURE. WITH

DESCRIPTIONS.


## GR'UNTING OX.

This singular and very curious animal, on a first view of the figure, presents not to ans spectator, unapprized of it's character, the smallest appcarance of either the Ox or Buffalo kinds. It is, however, universally allowed, by naturlalists, to be of one or the other of these families: what occasions the deceptiveness of the best representations, we shall endeayour to explain in the course of our description.

The Grunting Ox , or Bos Gruniens of Linnæus, is by some called the Grunting Cow, by others, the Buffalo with a horse's tail; and, by Buffon, the Cow of 'T'artary: We have adopted the most common name, that of the Grunting Ox ; without being satisfied, in our own minds, that either $\mathrm{O}_{\mathrm{x}}$, Cow, or Buth, which are all sexual distinctions, can ever be properly applied, indiscriminately, to the animals, in general, of both sexes. To place the absurdity in it's true light, we need only ask, what would be thought of any natura
lists
lists who should, in describing the Arabian horscs, for example, call them all the Geldings, or the Mares, of Arabia? Yet these, in truth, twould be no more improper, than it is to call a whole species, the $O x$, or the Cow. We are not unaware that, in this respect, the language is itself defective: and, we may add, that it is very objectionable, with regard to similar distinctions, in other animals; particularly, the dog, and the horse. The rectification would, perhaps, not be difficult; but weighty authority might be necessary to render current the most judicious new terms, and we willingly leave the task to such adepts in philological enquiries, as have had the good fortune to obtain the reputation of possessing an extraordinary degree of profound learning.

Pennant, who appears to have taken considerable pains in his account of the Grunting Ox, describes it as having a short head; a broad nose; thick anc hanging lips; and large ears, besct with coarse bristly hairs, pointed downwards, but not pendulous. The horns, on the authority of Mr. Bogle, a most ingenious and observant traveller, who es late

## GRUNTING CX.

years penetrated from India into Thibet, and for whose observations the reader is referred to the Philosophical Transactions, are stated to be short, slender, rounded, upright, and bending, and very sharp-pointed. They are placed remote at their bases, between which the hair forms a long curling tuft: the hair in the middle of the forehead is radiated. The space between the shoulders is much elevated; and, along the neek, there is a sort of mane, which extends, sometimes, all along the back, entirely to the tail. The tail, which is this animal's most obvious specific mark, to use Mr. Bogle's words, "spreads out broad and long, with flowing hairs, like that of a beautiful mare, of a most clegant silky texture, and of a glossy silvery colour." One of these beautiful tails, preserved in the British Museum, is full six feet in length. The whole body, and particularly the lower parts, as well as the throat and the neck, are covered with hairs so exceedingly long as to conceal at least half the legs, and make them appear very short: to which circumstance we mar, perhaps, refer much of the deceptive appearance for which the figure of this animal is so remarkable.

## GRUNTIN゙G UN゙。

remarkable．All the other parts of the hody are covered with long hairs，like those of the He－Goat．The hoofs are large；and the false hoofs，which prcjêt greatly，are conves externally，and concave within．The colour of the head and body is usually black；but the mane is of the same beautiful silvery hue as the tail．The size of these animals has been compared，by Pallas，to that of a small domestic cow：but，as Pennant remarks，the growth of those which he saw，was probably checked by their being brought very young， from their native country into Siberia．Mr． Bogle speaks of them as larger than the com－ mon Thibet breed；and Marco Polo，a Vene－ tian gentleman，who visited Tartary，and most other distant countries，in the thirteenth cen－ tury，expressly says，that the wild kind，which he satw on his travels，were nearly as large as elephants．＇This，though it corresponds with． the account of Guillame De Rubraquis，a Friar sent ty Louis IX．or St．Louis，as Am－ hassador to the Khan of Tartary，in 1253 ， and who wrote his extensive Travels，which he addressed to his Royal Master，may be somowhat cxaggerated：nevertheless，from the length
length of the tail in the British Museum, which probably did not reach the ground, no known figure of the animal ever representing the tail as descending quite to the heels, it may be fairly inferred, that the Grunting Ox , sometimes, at least, attains to an enormous size. In the New Memoirs of the $\Lambda$ cademy of $\mathrm{Pe}-$ tersburgh, M. Gmelin has given a deseription of this animal, which he saw alive in Siberia. It came from Calmuck, and was about two and a half Russian ells in length. His description, in general, corresponds with what we have given. "The excrements," he says, " are more solid than those of the Cow; and, when the animal discharges urine, it draws it's body backward. It lows not like an Ox , bat grunts like a hog. It is wild, and even ferocious; for, except the man from whom it receives it's food, it gives blows with it's head to all who come near. The piesence of domestic Cows it hardly suffers: whenever it perceives one of them, it grunts, which it seldom does on any other occasion." 'Fo this Gmelin adds, that it is the animal mentioned by Rubruquis, in his 'ravels ; and that there are two species, among the Calmucks, somewhet different
different in the head, horns, and tail, but of the same natural dispositions.
"These animals," says Pennant, " in the time of Rubruquis and Marco Polo, were very frequent in the country of Tangut, the present seat of the Mongol Tartars. They were found both wild and domesticated. Thev are in these days more rare; but are met with in abundance, I believe, in both states, in the kingdom of Thibet. Even when subjugated, they retain their fierce nature; and are particularly irritated at the sight of red, or any gay colour. This rising anger is perceived by the shaking their bodies, raising and moving their tails, and the menacing looks of their cyes. Their attacks are so sudden, and so rapid, that it is very difficult to avoid them. 'The wild breed, which is called Bucha, is very tremeindous: if, in the chace, they are not slam on the spot, they grow so furious from the wound, that they will pursue the assailant ; and, if they overtake him, they never desist onsing him on their horns into the air, as long as life remains. They will copulate with domestic Cows. In the time of Marco Polo, this halibreed
breed was used for the plough, and for bearing of burdens, being more tractable than the others; but even the genuine breed were so far tamed, as to draw the waggons of the Nomades, or wandering Tartars. To prevent mischief, the owners always cut off the sharp points of the horns. The tamed kinds vary in colour, to red and black, and some have horns white as ivory. There are two varieties of the domesticated kinds; one called in the Mongol language, Ghainouk, the other Sarlyk: the first, of the original Thibet race; the other, a degenerated kind. Many are also destitute of horns; but have, on the front, in their place, such a thickness of bone, that it is with the utmost difficulty that the persons employed to kill them can knock them down with repeated blows of the ax. A bezoar is said to be sometimes found in their stomachs, in high esteem among the oriental nations. But the most valuable part of them is the tail, which forms one of the four great articles of commerce in Thibet: these tails are sold at a high price; and are mounted in silver handles, and used as Chowras, or Brushes, to chace away the flies. In India, no man of fashion
ever goes out, or sits in form at home, without two Chowrawbadars, or Brushers, attending him, each furnished with an instrument of this kind. The tails are also fastened, by way of ornament, to the ears of elephants; and the Chinese dye the hair red, and form it into tufts, to adorn their summer bonnets. Frequent mention is made of these animals, in the sacred books of the Mongols: the Cow being, with them, an object of worship, as it it with most of the orientalists. Of the ancients, 乍lian is the only one who takes notice of this singular species. Amid his immense farago of fables, he gives a very good account of it, under the name of "the Poephagus; an Indian animal larger than a horse, with a most thick tail, and black, composed of hairs finer than the human. Highly valued by the Indian ladies, for ornamenting their heads. Each hair," he says, "was two cubits long. It was the most fearful of animals, and very swift. When it was chaced, by men or dogs, and found itself nearly overtaken, it would face it's pursuers, and hide it's hind parts in some bush, and wait for them ; imagining that, if it could conceal it's tail, which

## GRUNTING OX.

was the object they were in search of, it would escape unhurt. The hunters shot at it with poisoned arrows; and, when they had slain the animal, took only the tail and hide, making no use of the flesh."

Buffon roundly asserts that, in the whole description of this animal, there is only a single character which indicates what he calls the Calmuck Cows to be a particular species; and that is, their grunting instead of lowing. In every other respect, he observes, they have so strong a resemblance to the Bison, that they must belong to the same species; or, rather, to the same race. Besides, though Gmelin says, that these Cows do not low, but grunt; he acknowledges, that they very rarely utter that sound. Perhaps, it was an affection peculiar to the individual he saw ; for Rubruquis, and the other writers whom he quotes, do not mention this grunting. Perhaps, the Bison, when enraged, likewise make a grunting noise. Even our Bulls, particularly in the rutting season, have a hollow, interrupted voice, which has a greater resemblance to grunting than to lowing. I am persuaded, therefore," concludes
coneludes Buffon, "that this Grunting Cow of Gmelin, is nothing else but the Bison, and does not constitute a particular species."

To take the account of Gmelin only, when there are so many others; and argue, with a "perhaps," when he ought to have sought for the facts, which are so easily ascertained; is not the most candid method of investigating truth. Surely, Buffon could be at no loss to know, that Rubruquis, though not in the parcular passages which happen to be quoted by Gmelin, calls this animal, "Vacca Gruniens;" or, "the Grunting Cow!"


## INDIAN BUSTARD.

'This bird is the Otis Bengalensis of Gmelin ; the Churge, or Middle Indian Bustard, of Buffon; the Pluvialis Bengalensis Major, or Great Bengal Plover, of Brisson; and the Indian Bustard, of Elwards, Latham, and other naturalists. Edwards, who published in 1754, mentions that, he believes, we have hitherto no account of this bird, though it seems $t$, be among the first which would attract the notice of a curious observer. Notwithstanding which hint, and our frequent intercourse with it's native country, there does not appear to have been any additional information obtained respecting it ; the most distinguished naturalists seeming, in general, to have relied wholly on what is advanced by Edwards.

Brisson, indeed, has been tempted to class it with the Plovers. But it is, as Buffon has demonstrated, very insufficient for this purpose, to assert that the distinguishing charalter botween the Plovers, and the Bustards, consists
in the form of the bill-which, in the latter, is an arched cone; and, in the former, is straight, and enlarged near the extremity-for, in the Indian Plover, the bill is curved rather than straight; and not at all swelling near the point, as in the Plovers : at least, so it is represented in a figure of Edwards, which Brisson allows to be exact. I may add," says Buffon, "that this property is more remarkable than in the Arabian Bustard of Edwards; the accuracy of which figure is also admitted by Brisson, and yet he has not hesitated to class that bird with the Bustards."

The Indian Bustard, in fact, as Buffon adds, is four times the bulk of the largest Plover; to say nothing of the total difference in it's appearance and propurtions.
" It's height," says Fhwards, whose f. gure we have adopted, "is calculated to be about twenty inches, in the action or posture in which it is drawn. It is a slimmer bird, having longer legs in proportion than any other bird of this genus I have yet seen. 'The tail is longer than in our English Bustard, and:
of a whitish colour. The eyes are large: the irides hazel-coloured; and the eye-lids ashcoloured. The sides of the head, all round the eyes, are of a bright brown colour : the top of the head, and the whole neck, are covered with black feathers, hanging a little loose, with narrow points. The back, rump, and tail, are of a bright brown. 'The feathers on the back have their middles black, with a small powdering of the same colour on their brown parts. The tail has transverse bars of black, with the like powdering on the intermediate brown bars. From the upper part of the back, the brown spotted with black passes quite round the lower part of the neck before. All the covert-feathers of the wings are white; except that the smaller feathers about the joint, or band, are edged with black: the greater or outer quills, have their outer wobs white, their tips gradually becoming of a dark ash-colour. The whole under side, from the transverse brown bar on the breast, to the covert feathers under the tail, is covered with black feathers. The legs are long, and the toes short in proportion: they are void of feathers a pretty way above the knees. 'The toes
are only three, all standing forward, as in all birds of the Bustard kind: they are covered with scales of a whitish colour. The claws are dusky."

In Bengal, where this bird is a native, it is called Churge. The drawing was made in the East Indies; and, though not executed by Edwards, he believes it to be as genuine a piece as if he had drawn it himself from life.
"We may remark," says Buffon, "that the climate of Bengal is nearly the same with that of Arabia, Abyssinia, and Senegal, where the Lohong, or Crested Arabian Buftard, and the African Bustard, are found ; and," he adds, " we may term it the Middle Buftard, because it holds the intermediate rank between the large and the small species."



## SCARLET WOODBINE,

## OF NEW SOUTH WALES.

There can, we presume, be little objection made, on any just ground, to the name of the Scarlet Woodbine, which we have given to this beautiful parasitical plant, the production of New South Wales.

Our figure, which is a faithful representation of nature, bears too strong a family likeness to be mistaken by the most cursory observer; though the flowers, which are full double the size figured, may be more bulky than the generality of our European Woodbines, and certainly appear to grow less profusely in clusters.. But, neither these circumstances, nor the great difference of colour, can be considered as forming any essential generical distinction,

It grows plentifully in a light, sandy, $n$ : gravelly soil; rises several fect in height; and, winding among the shrubs, bushes, \&\&c. some-
times for a considerable distance, produces a most charming effect, by it's crimson blushings, seen at intervals amid the green foliage which it entwines.

We have been unable to learn, whether this plant posserses any portion of that delicate fragrance which so peculiarly distinguishes the European Woodbines.

## THE

## NATURALIST's POCKET

MAGAZINE;

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## COMPLEAT CABINET OF NATURE.

## N ${ }^{\circ}$ XL. <br> CONTAINING』

I. THE SLOTH.
2. The GREEN and Red Chinese parrot.
3. The WALKING-STICK INSECT.

## COLOURED AFTER NATURE.

W1TH

## DESCRIPTIONS.



syoprif.


## SLOTH.

'THE Sloth, or Bradypus of Linnæus, is a genus of animals, the characteristics of which are, that they have no fore-teeth in either jaw; that they have six grinders on both sides of each jaw; which are cylindrical, and obliquely cut off at the ends, the two foremost in each jaw being longer than the rest, and far distant from each other; and, that the body is covered with hair. Only three species appear to have been noticed by naturalists; and, of these, one seems to us of very doubtful affinity, though Pennant, and other respectable naturalists, have classed in this family a five-toed quadruped, under the name of Bradypus Ursinus, or the Ursine Sloth. 'The two species adopted by Linnæus, Buffon, \&cc. who were probably unacquainted with the latter animal, which appears to have been only lately noticed, are the Ai, Bradypus 'Tridactylus, or 'Threc-'Toed Sloth; and the Unau, Bradypus Didactlat, or Two-Toed Sloth.

Buffon, who treats of these two amimal, under one general head, has groatly condiond
his account, and fallen into some error. Indeed, his own general description of the two species, affords sufficient demonstration thet they ought to have been severed. "Though," says he, " they resemble each other in many respects, they differ, both externally and internally, by characters so marked, that it is impossible not to recognise them as very distinct species. The Unau, or 'Two-Toed Sloth, has no tail, and only two claws on the fore-feet; the Aï, or Three-Toed Sloth, has a tail, and three claws on all the feet. The muzzle of the former is longer, the front more elevated, and the ears more apparent, than those of the latter. Their hair is also very different. The structure and situation of some parts of their viscera are likewise different. But the most remarkable difference is derived from this singular circumstance, that the Unau has forty-six ribs, and the 1 i only twenty-eight, which shews them to be species very rumote from each other. This number of ribs in the body of an animal so short, is an exccss, or error, of Nature; for no animal, however large, has such a number of ribs. Whe Lilcphant has only forts, the Horse thirty-six;
thirty-six, the Badger thirty, the Dog twentysix, Man twenty-four, \&cc. This difference in the structure of the Sloth indicatcs a greater distance between these two species, than between the Dog and Cat, which have both the same number of ribs: for external differences are nothing, when compared to those which are internal; the former may be regarded as causes, and the latter as effects only. The interior frame of animated beings is the foundation of Nature's plan; it is the constituent form, and the origin of all figure; but the ex. ternal parts are only the surface or drapery. How often have we not found, in the course of our comparative examination of animals. that a very different external appearance covered internal parts perfecty similar; and that. on the contrary, the slightest internal distinction produced great external differences, and changed the natural dispositions, powers, and qualities, of the animal! How many animals are armed, covered, and adorned, with excrescent parts, whose external strueture corresponds exactly with others which are totally deprived of such appendages! But this," adds Buffon, " is not a place for such nice disquiquisitions:
sitions: we shall only remark that, in proportion as Nature is vivacious, active, and exalted, in the Monkey kind; she is slow, restrained, and fettered, in the Sloth."

Our Sloth is figured from Edwards, who annexes the following account-"It is about the bigness of a large domestic Car. The specimen from which I drew it was a stuffed shin, set up in the attitude represented b: the figure. The skin about the mouth was so close and hardened, that I could not discover the teeth. The ears are very small, roundish, and wholly covered by the long hair on it's head. It has no outward appearance of a tail. The head, which is pretty round. is covered with long hair on it's top, sides, and hinder part, which hangs over the neck, as in the human species. The face, in front, has somewhat the appearance of a man's; and is covered with short hair, which tends outward all round, and meeting the hair of the head in opposite directions, forms a little rising round the face, and appears like a mask. The skin was bare about the mouth, and of a reddish colour; it was also reddish about the
eyes. The feet are covered with a bare red skin, and have each of them three very strong white nails or claws, pretty long, and moderatelv bent. The feet are flattish; not divided into toes, but the nails arise immediately from the undivided feet. The arms, or fore legs, are longer than the hinder. Whether it had nipples on the breasts, like the Monkey, the thickness of the fur, and dryness of the skin, hindered me from discovering. It is covered all over with a thick, coarse hair, of a dark brown colour; which appeared split and broken, like weather-beaten hemp, and seemed to have been long under the force of the sun, winds, and rain. This animal was brought from Honduras, in America; and, I believe, is found all over those parts of South America that are not many degrees distant from the equinoctial line. It was the property of the late Lord Peter. The first author I can find, at present, who has mentioned this animal, is Gesner; who has given a figure of it, perfectly like a Bear with a human head. The next is Clusius; who has given a tetter figure of it, which he calls Ignavus. Nieremberg has copied the figures both of Gesner and Clusius,
and has added to them one of his own. Piso has given the skeleton of this animal, with a figure of it crawling like a toad; and, in the frontispiece of his book, one climbing up a tree: he calls it "Ai, sive Ignavus," and makes a major and a minor species. Dampier says-" The Sloth feeds on the leaves of trees, stripping one tree of it's leaves before it descends; and is so slow of motion, that it is almost starved before it can climb another tree, though the trees are near together." Don Antonio De Ulloa says that, in the country about Porto-Bello, " there is an animal," -I suppose," says Edwards, " our Sloth"t called Perico Ligere, or Nimble Peter: an ironical name, given it on account of it's extreme sluggishness and sloth. He is so lumpish as not to stand in need of either chain or hutch; for he never stirs till compelled by bunger, and shews no manner of apprehension either of men or wild beasts. His food is generally wild fruits; and when he can find none on the ground, he looks out for a tree well loaded, which with much pain he climbs, and in order to save himself the trouble of a second ascent, plucks off all the fruit, and throws
throws it on the ground, and to avoid the pain of descending the tree, forms himself into a ball, and drops from the branches. At the foot of this tree, he continues till all the fruit it consumed; never stirring, till hunger forces him to seek for more." Klein, in his History of Quadrupeds," concludes Edwards, "has given the laist original figure of it; except this of mine, which differs from all the foregoing figures, and will, I believe, be found more correct than most of them. All the figures I have yet seen, extend the hair on the feet quite to the nails; which is contrary to it's nature."

Pennant remarks that, though the Sloth preserved in the British Museum, and which he takes to be a young one, is only twelve inches long, the animal, according to Nicuhoff, grows to the bulk of a middle-sized Fox. It has, he says, a mere stump of a tail; long thick legs, aukwardly placed; with three toes, and three very long claws on cach foot. "It's motion," says Pemnant, " is attended with a most moving and plaintive cry, which at once produces pity and disgust, and is it's only defence; for every beast of prey is so affected by
the noise, as to quir it with horror. In's note, according to Kircher, is an ascending and descending hexachord, which it utters only by night. It's look is so piteous, as to more compassion; it is also accompanied with tears, which dissuade every bady from injuring so wretched a being. It's abstinence from food is remarkably powerful; one that had fastened itself by ir's feet to a pole, and was so suspended across two beams, remained forty days without meat, drink, or sleep. The strength in it's feet is so great, that there is no pussibility of freeing any thing from it's claws, which it happens to seize on. A dog was let loose at the above-mentioned animal, when it was taken from the pole; after sometime, the Sloik laid hold of the dog with it's feet, and held him four days, till he perished with hunger."

The Sloth is said to bring forth but a single young one at a birth, which she camies on her back; and, according to Butfon, instead of three distinct apertures for the discharge of urine and excroments, and for the purposes of generation, this animal has but one. which terminates in a common camal, as in tirds.



GREENSRED MTIINESE PARROT,


## GREEN AND RED CHINESE PARROT.

THIS very grand and beautiful bird is the Psittacus Sinensis of Linnæus, the Green Parrot "of Buffon, the Great Green Parrot of Sonnerat, and the Green and Red Chinese Parrot of Edwards and Latham. It is, as Edwards observes, one of the largest species of Parrots, being the size of a middling hen. The upper mandible of the bill is red at it's base, and inclining to yellowish at it's point; which is pretty much hooked, and has an angle on each side: the lower mandible is black. The nostrils are placed between the feathers of the head and the base of the bill; it having no skin, or cere, over the base, as is common in 'most of the Parrot kind. It is also singular, in having the feathers continued close to the cyes; Parrots, generally, having a space of skin devoid of feathers round their eyes. The circles round the eyes are of a bright orange colour. The head, neck, back, covert-feathers of the wings, breast, belly, and upper side of the tail, are all of a fine full green. The sides, under the wings, and the inner covert-feathers of the wings, are red;
which redness, on the sides, appears outwardly down the sides of the breast and belly. The greater quills, or beam feathers of the wings, are of a fine blue; as well as those of the first row of covert-feathers above them: the edge, or border, of the wing, above, that falls on the breast, is also blue. The inside of the quills, and the under side of the tail; are of a dark brown or blackish colour. The tips of the tail-feathers, on the under side, are of a yellowish brown. The thighs, and coverts beneath the taii, are green; and the legs, feet, and claws, are black. The toes are two forwards, and two backwards, as in all other Parrots. "I take it," says Edwards, " to he as rare a Parrot as any I huve met with; it beir. $\begin{gathered}\text { the only one I have scen of it's kind." }\end{gathered}$ Oum rionte was drawn hy that celebtated naturalist, from the living bird.

Butfon momaris, that this Parret is found in the Mownos, and in New Guinen, as well as in China: of which last country, he asserts, it only ininahits the most southem provinces, such as Quanton and Quangsi, whichare near the tropic, the usual limit of the chimate oi farrots.


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WAT.KING STICK IVSWCT.


## WALKING-STICK INSECT.

IN this tribe of insects there appear to be several families, considerably varying from each other. They are called Walking-Sticks, and we have not the smaliest inclination to quarrel with the name; though they might, certainly, have been more specifically denominated, according to the peculiar species of Cane which they'respectively most resemble.

The animal which we have figured, was drawn by Edwards, from the real insect; who says-" It is so much like a dry stick, that it is supposed to deceive birds, and other animals that prey on inseets. The thicker part of the insect, nearest the head, where the six legs are placed, is full of Jittic prickles, or thorns, like what are observed on the branches of many sorts of shrubs and trees. The head resembles that of a Locust with tiwo horns. It is divided into joints the whole length of the bod:; out the last joint, or division, which is the tail, sonly half round, and hollow, appearing like he bark peeled off a stick. This was of a
greenish brown colour; though I apprehend that they are at first greener, and change gradually with age and the seasons, so as always to be nearly the colour of the earth, grass, or shrubs, on which they livc. There are many different species of this insect, both in the old-tiscovered world and in America. Petiver, in his Gazophylacium, has given a figure of a species diffurent from mine; which he calls, a Smail Brasilian Quill Locust, called there Arumatia. It is greenish, with spotted legs: the boaiy is like a birchen twis, long and slender. Marcgrave has given two different species of this insect. See his Natural History of Brasil, page 251."

This insect came from the Cape of Good Hope, and was about an inch longer than is represented in our figure.


