

ILLUSTRATIONS  
OF  
NATURAL HISTORY:

EMBRACING  
A SERIES OF ENGRAVINGS

AND  
**Descriptive Accounts**

OF  
THE MOST INTERESTING AND POPULAR GENERA AND SPECIES  
OF  
THE ANIMAL WORLD.

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ONE HUNDRED AND FOURTEEN PLATES.

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mon hog; but it sometimes utters also a loud, growling note. When sleeping or resting, they are said to hook or support themselves by placing the upper tusks over the lower branches of the trees. When closely pursued, it plunges into the sea, dives and swims from one island to another with great facility, and thus frequently escapes from its pursuers: but when any number of them are together, their odour is so strong that the dogs can readily scent them at a great distance. They are easily tamed, and their food is the leaves of trees and other vegetables: their flesh is well tasted.

## THE ONE-HORNED RHINOCEROS

(*Rhinoceros Unicornis*. LINN. *Rhinoceros*. BUFF.)

Inhabits Bengal, Siam, Cochin-China, Quangsi in China, and the isles of Java and Sumatra, and the country as low as the Cape of Good Hope; but in general the species is not numerous, and is much less diffused than the elephant. The single horn of this animal, which marks its species, is placed near the end of the nose, and is sometimes three feet and a half long, black, smooth, and solid; the head is large, the ears long and erect, and its eyes small, sunk, and without vivacity. The under lip is like that of an ox, but the upper more like that of a horse; and the rhinoceros uses it as that creature does, to gather up hay from the rack, or grass from the ground; but with this superior advantage, that he has the power of extending the lip to six or seven inches in length from the nose; and it is so pliable that he can move it from side to side, grasp a stick with it, or any small substance, and hold it extremely fast. The nostrils are situated very low, in the same direction with the opening of the mouth, and not more than an inch from it. The length of the rhinoceros, from the extremity of the muzzle to the insertion of the tail, is usually twelve feet, and the circumference of the body nearly equal to its length. The



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THE RHINOCEROS.



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THE TWO HORNED RHINOCEROS.

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skin, which is of a blackish colour, forms itself into large folds at the neck and the crupper, by which the motion of the head and limbs are facilitated. There is also a large fold from the shoulders, which hangs down to the fore legs, and another from the hind part of the back to the thighs. The skin is thick, and seems almost impenetrable, insomuch that it will turn or break the edge of a scimitar, and resist a musket-ball; and it feels like a piece of board half an inch thick. The body is everywhere covered with tuberosities or knots, which are small on the neck and back, but larger on the sides. The thighs, legs, and even the feet, are full of these incrustations, which have been mistaken by some authors for scales; between the folds the skin is penetrable, as soft to the touch as silk, and of a light flesh colour,—as is also the skin of the belly. The body of the rhinoceros is thick, as well as long; its belly is large, and hangs nearly to the ground; the legs are short, round, and very strong; and the hoofs are divided into three parts, each pointing forward; the tail is slender, flattened at the end, and covered on the sides with very stiff, thick, black hairs. The tongue of the rhinoceros has been represented by some authors as being so extremely rough, that, when he has thrown a man down, he can lick the flesh from the bones; but this is quite erroneous, the tongue being quite smooth. The rhinoceros has four cutting teeth, one on each corner of the jaw, and six grinders in each, the first remote from the cutting teeth.

Those animals of this species which have been brought to England have been young and small. Bonticis says, that in respect to bulk of body the rhinoceros equals the elephant. Without being carnivorous, or even extremely wild, the rhinoceros is quite untractable. It seems to be subject to paroxysms of fury, which nothing can appease. That which Emanuel, king of Portugal, sent to the Pope, in the year 1513, destroyed the vessel in which they were transporting it; and it is said that the tiger will rather

attack the elephant than the rhinoceros. He is a solitary animal, loves shady forests, moist and marshy grounds, and seldom quits the banks of rivers. Like the hog, he is fond of wallowing in the mire, and is said by that means to give shelter in the folds of his skin to scorpions, centipedes, and other insects. He is dull of sight, but has a most exquisite scent, and feeds on vegetables, particularly shrubs, broom, and thistles. He grunts like a hog, and is said to consort with the tiger; but the latter report is fabulous, and has arisen from the circumstance of their common attachment to the sides of rivers, and consequently being frequently found together. From the peculiar construction of the eyes of the rhinoceros, he can only see what is immediately before him; consequently, when he pursues any object, he usually proceeds in a direct line, overturning every obstruction. With the horn on his nose, he tears up trees, raises stones, and throws them behind him to a considerable distance. His sense of hearing is as acute as his smell; and he will listen with a deep and long-continued attention to any kind of noise until it ceases. The female produces but one at a time, at considerable intervals; and is very solicitous about her young, which, during the first month, does not exceed the size of a large dog.

The flesh of the rhinoceros is eaten, and considered excellent food by the natives of India and Africa; and, in the former country, the skin, hoofs, teeth, and dung, are used medicinally. The horns are in great repute as an antidote against poison, especially those of the virgin female, called *abadda*,—cups made of which are said to communicate their virtue to the liquor poured into them. The rhinoceros is the unicorn of Scripture, and possesses all the properties ascribed to that animal,—rage, untameableness, great swiftness, and immense strength.

A rhinoceros was found buried entire in a bank of a river in Siberia, in the ancient frozen soil, with the skin, tendons, and some of the flesh, in the highest preservation.

This fact is not only given on the best authority,\* but, as an evidence, the complete head is now preserved in the Museum at St. Petersburg. The body was discovered in 1772, in the sandy banks of the river Witim.

## THE TWO-HORNED RHINOCEROS.

*Rhinoceros Bicornis.* LINN.

Of this species, which inhabits Africa only, the flesh resembles that of a hog, and the viscera those of a horse. It has no gall-bladder, and no fore teeth; the skin has but few folds, is much granulated or warty, and of a deep ashen gray; between the legs it is smooth, and flesh-coloured; on the other parts there are a few bristles, but they are most numerous about the ears and end of the tail. The latter is flattened on the sides, the feet are round, and do not spread much, and there are three hoofs on each of them, which project but little, the middle one being the longest. This species of the rhinoceros has two horns, placed one behind the other in a line with the nose; the foremost of them measures about a foot and a half in length, and is always the largest of the two. They are of a conical shape, and the tips incline a little backward: the lower parts are rough, and seem as if composed of thorny fibres; the upper parts are plain and smooth, like those of an ox. It is remarkable that this animal makes use of the shorter horn only for the purpose of digging up roots, of which its food chiefly consists, being endued with the power of turning the larger horn on one side out of the way. The eyes are small, and sunk into its head, consequently it sees indistinctly. But its organs of hearing and smelling are very acute, so that the least noise or scent puts it in motion. It instantly runs to the spot from which the alarm proceeds, and whatsoever it meets with in its course it overturns and tramples upon. Men, oxen, and

\* Dr. Pallas, Nov. Com. Petrop. xvii. 585, tab. xv.

even waggons, have thus been overturned and destroyed; but it never stays or returns to renew the charge, and the mischief it does is more the effect of a senseless impulse than of rage.

Mr. Sparmann, a learned Swede, shot two of these animals; one of which was so large that the united efforts of five men were insufficient to turn it. On measuring the lesser he found its length to be eleven feet and a half, the height seven feet, and the circumference twelve.

This species seems to agree in its habits with the preceding. Its flesh is eatable, and tastes like pork, but is very full of sinews. Its food is boughs of trees, which it bites into pieces of the size of a finger. It feeds much also on succulent plants, especially the stinking *stapelia*. Cups are made of the horns, and whips of the hide; but the skin of this rhinoceros is not so hard or impenetrable as that of the former species. In his wild state he is often slain by javelins thrown by the hand, which sometimes enter his body to a considerable depth; and the inhabitants of Shangalla kill these animals with the clumsiest arrows that ever were used.

This kind of rhinoceros, though large, fierce, and strong, is nevertheless subject to great torment from an apparently contemptible adversary. This is a fly (probably of the Linnæan genus *æstris*) which is bred in the black earth of the marshes in Abyssinia, and which persecutes the rhinoceros so unremittingly, that it would subdue him in a short time, but for a stratagem which he practises for his defence. In the night, when the fly is at rest, the huge animal selects a convenient place, where, rolling in the mud, he clothes himself in a kind of case, which defends him against his adversary the following day. The granulations of his skin serve to keep the muddy plaster firm upon every part of his body except the hips, shoulders, and legs, where, from his motion, it cracks and falls off; thus leaving him partially exposed to the attacks of the fly. The voice of the rhinoceros is only a sort of snorting, which is exerted by the

females when anxious for their young. They pay great regard to cleanliness, dropping their dung and urine only in particular places ; and the former is like that of horses.

Bruce's description of the manner of feeding, as well as of some other particulars relative to the two-horned rhinoceros, seems highly worthy of notice. He informs us, that, " besides the trees capable of most resistance, there are, in the vast forests within the rains, trees of a softer consistence, and of a very succulent quality, which seem to be destined for his principal food. For the purpose of gaining the highest branches of these, his upper lip is capable of being lengthened out, so as to increase his power of laying hold with this, in the same manner as the elephant does with his trunk. With this lip, and the assistance of his tongue, he pulls down the upper branches which have the most leaves, and these he devours first. Having stripped the tree of its branches, he does not abandon it ; but, placing his snout as low in the trunk as he finds his horns will enter, he rips up the body of the tree, and reduces it to thin pieces, like so many laths ; and when he has thus prepared it, he embraces as much of it as he can in his monstrous jaws, and twists it round with as much ease as an ox would do a root of celery, or any such pot-herb or garden-stuff.

" When pursued and in fear, he possesses an astonishing degree of swiftness, considering his size, the apparent unwieldiness of his body, his great weight before, and the shortness of his legs. He is long, and has a kind of trot, which, after a few minutes, increases in great proportion, and takes in a great distance ; but this is to be understood with a degree of moderation. It is not true, that in a plain he beats the horse in swiftness. I have passed him with ease, and seen many worse mounted do the same ; and though it is certainly true that a horse can seldom come up with him, yet this is owing to his cunning, but not his swiftness. He makes constantly from wood to wood, and forces himself into the thickest part of them. The trees that are dry are



broken down, like as with a cannon shot, and fall behind him, and on his side in all directions. Others that are more pliable, greener, and fuller of sap, are bent back by his weight, and the velocity of his motions; and, after he has passed, restoring themselves like a green branch to their natural position, they sweep the incautious pursuer and his horse from the ground, and dash them to pieces against the surrounding trees.

"The eyes of the rhinoceros being very small, he seldom turns his head, and therefore sees nothing but what is before him. To this he owes his death, and never escapes, if there is so much plain as to enable the horse to get before him. His pride and fury then make him lay aside all thoughts of escaping, but by victory over his enemy. He stands for a moment at bay; then, at a start, runs straight forward at the horse, like the wild boar, whom, in his manner of action, he very much resembles. The horse easily avoids him by turning short to a side; and this is the fatal instant: the naked man, with the sword, drops from behind the principal horseman, and, unseen by the rhinoceros, who is seeking his enemy, the horse, he gives him a stroke across the tendon of the heel, which renders him incapable of further flight or resistance.

"In speaking of the great quantity of food necessary to support this enormous mass, we must likewise consider the vast quantity of water which he needs. No country but that of the Shangalla, which he possesses, deluged with six months rain, and full of large deep basins, made in the living rock, and shaded by dark woods from evaporation, or watered by large and deep rivers, which never fall low, or to a state of dryness, can supply the vast draughts of this monstrous creature. But it is not for drinking alone that he frequents wet and marshy places: large, fierce, and strong as he is, he must submit to prepare himself against the weakest of all his adversaries. The great consumption he constantly makes of food and water necessarily confine him to certain limited

spaces, for it is not every place that can maintain him. He cannot emigrate, or seek his defence among the sands of Athara."

The rhinoceros with two horns was the species described by Martial under the name of *rhinoceros cornu gemino*, who relates its combat with the bear. The Romans, who procured their rhinoceri from Africa, represent them with double horns. That figured in the Prænestine pavement, and that on a coin of Domitian, has two horns. Augustus introduced a rhinoceros (probably of this kind) into the shows, on occasion of his triumph over Cleopatra.

## THE HIPPOPOTAMUS.

*Hippopotamus Amphibius*. LINN. *L'Hippopotame*. BURR.

The hippopotamus is a quadruped as large, and not less formidable than the rhinoceros. Whether there may exist more than one species of this genus appears uncertain; for there is every reason to apprehend that the morse has sometimes been confounded by travellers with the true hippopotamus. Sonnini's observations seem in favour of the existence of more than one kind; yet his conclusions are not apparently founded on better authority than the discordance of naturalists. Those who apprehend there are two species consider one as an inhabitant of the fresh water, or rather of inland lakes, rivers, and marshes; and the other to be entirely confined to the sea. The latter, therefore, is probably the morse.

Although zoologists are acquainted with only one living species of the hippopotamus, yet late observations have proved that the bowels of the earth contain the *fossil* remains of two perfectly distinct species — one of which appears not to differ in any respect from the one still existing — the other being, as it were, a miniature copy of the larger, not exceeding in size the wild boar.