

## THE PORCUPINE\*.

THE name given to this animal in most European languages leads to the notion that it is a hog covered with bristles, though it has no resemblance to the hog but in the grunt-

\* The porcupine has two cutting teeth in each jaw; the body is covered with long, hard, and sharp quills, and the upper lip is divided. The crested porcupine has a long crest on the top of the head, reclining backward, and formed of stiff bristles. The body is covered with long quills; those on the hind part of the body being nine inches in length, very sharp at the ends, and varied with black and white. Between the quills are a few hairs. The head, belly, and legs are covered with strong bristles, terminated with soft hair of a dusky colour. The whiskers are long, and the ears are like the human. It has four toes before, and five behind. The tail is short, and covered with quills. The length, from nose to tail, is two feet, and that of the tail four inches; *Pennant's Synops. of Quad.* p. 262.

In Greek and Latin, *Hystrix*; in Arabic, *Twar-ban*, according to Dr. Shaw; in German, *Stachelschwein*; in Italian, *Porco spinoso*; in Spanish, *Puerco-espino*; in French, *Porc-épic*.

*Hystrix*; *Plin. lib. viii. c. 35. Gesner. Quad.* p. 563. *Raii Synops. Quad.* p. 206.

*Porc-épic*; *Mém. pour Servir à l'Hist. des Animaux, part. ii. p. 33. tab. 41.*

*Hystrix orientalis cristata*; *Seba, tom. i. p. 79. tab. 1. fig. 1.* In Seba's figure, there are only three toes on the hind feet, instead of five.

*Hystrix capite cristato*; *Briffon. Quad.* p. 85.

*Hystrix cristata, palmis tetradactylis, plantis pentadactylis, capite cristato, cauda abbreviata*; *Linn. Syst. Nat. p. 76. Hæffelgujst. Litin. p. 290.*

ing noise it makes. It differs from the hog as much as any other quadruped, both in figure and internal structure. Instead of a long head, furnished with long ears, armed with tusks, and terminated by a snout; instead of cloven feet, covered with hoofs, like the hog; the porcupine has a short head, like the beaver, two large cutting teeth in each jaw, no tusks or canine teeth, the upper lip divided like that of the hare, round flat ears, and feet armed with claws. Instead of a large stomach with an appendix shaped like a cowl, which, in the hog, seems to form 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 hid in the groins. From these characters, joined to the short tail, the long whiskers, and the divided lip, we may conclude that the porcupine makes a nearer approach to the hare or the beaver than to the hog. The hedge-hog, which, like the porcupine, is armed with prickles, has a greater resemblance to the hog; for its muzzle is long, and terminates in a kind of snout. But, all these resemblances being slight, and the differences conspicuous, the porcupine unquestionably constitutes a particular species, totally distinct from that of the hedge-hog, the beaver, the hare, or any other animal to which fancy may compare it.

Travellers

Travellers and naturalists have attributed to the porcupine the faculty of darting its quills to a distance, and with such force as to inflict deep wounds: They have likewise said, that the quills, when separated from the body of the animal, possess the extraordinary power of penetrating, by their own proper exertion, deeper into the flesh, as soon as their points have entered. This last fact is purely imaginary, and the first is equally false as the second. The error seems to have originated from this circumstance, that the porcupine, when irritated, erects and moves his quills; and, as some of them are attached to the skin by a delicate pedicle only, they easily fall off. We have examined living porcupines, and, though violently agitated, we never saw them discharge their quills like darts. It is not a little surprising, therefore, that the gravest authors, both ancient \* and modern †, as well

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\* Arist. Hist. Anim. lib. ix. cap. 39. Plin. Hist. Nat. lib. viii. cap. 53. Oppian. de Venatione.

† Those quills, say the anatomists of the academy of sciences, which were strongest and shortest, easily parted from the skin, being less firmly attached to it than the others. These are likewise the quills which the porcupines dart against the hunters, by shaking their skin as dogs do when they come out of the water. Claudian, in the same manner, remarks, that the porcupine is himself the bow, the quiver, and the arrow, which he employs against the hunters; *Mém. pour Servir à l'Hist. des Animaux*, tom. iii. p. 114. Note, Fable is the province of the poet; and therefore Claudian merits no reproach. But the anatomists of the academy should not have adopted this fable, which they seem to

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as the most sensible travellers\*, should join in giving their suffrages to a falsehood. Some of them tell us, that they themselves have been wounded by these darts: Others affirm, that the quills are discharged with such violence as to pierce a plank at the distance of several paces†. The marvellous always augments and gathers force in proportion to the number of heads through which it passes. Truth, on the contrary, loses in performing the same route. Notwithstanding the absolute negative I have stamped on these two fictions, I am persuaded that it will still be repeated by a thousand future writers, that the porcupine darts his 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‡.

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have done for no other purpose than that of quoting Claudian; for, from their own account, it appears that the porcupine does not dart his quills to a distance, but that they only fall off when he shakes himself; *Wernius, Mus. Wormian. p. 235. Watson. p. 56. Aldrov. de Quad. Digit. p. 473.* and several other respectable writers, have adopted this error.

\* Tavernier, tom. ii. p. 20. Kolbe, tom. iii. p. 46. Barboe, Hist. Gen. des Voyages, tom. iv. p. 237.

† When the porcupine is enraged, he darts his quills, which are sometimes two spans in length, with such rapidity and force, against men and other animals, that they will pierce a plank of wood; *Voyage en Guinée, par Bujinan, p. 253.*

‡ From this group of credulous travellers, we must except Dr. Shaw. Of the many porcupines which I have seen in Africa, I never knew any of them, though very much provoked,

The porcupine, though originally a native of the warmest climates of Africa and India, can exist and multiply in colder countries, such as Persia, Spain, and Italy. Agricola remarks, that the porcupine was not transported into Europe long before his time. It is found in Spain, and more commonly in Italy, particularly in the Apennine mountains in the environs of Rome. It was from this last place that M. Mauduit, who, stimulated by his love of natural history, sent us the porcupine which M. Daubenton has described. We have given the figure of this Italian porcupine, as well as that of India. The slight differences between them depend on the climate, or perhaps they are only individual varieties.

voked, that could dart their quills. Their usual method of defence is, to recline themselves on one side, and, upon the enemy's near approach, to rise up quickly, and gore him with the erected prickles upon the other; *Shaw's Travels, p. 176.* P. Vincent Marie by no means asserts that the porcupine darts his quills: He only says, that this animal, when he meets with serpents, against whom he carries on a perpetual war, rolls himself up like a ball, concealing his head and feet, and then rolls upon, and kills them with his bristles, without running any risk 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 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 petrifications. We have no doubt as to the truth of these facts; for we found a bezoar of the first kind, or an *xagropilius*, in the stomach of a porcupine which was sent to us from Italy.

Aristotle,

Aristotle, Pliny, and all the naturalists, tell us, that the porcupine, like the bear, conceals itself during the winter, and brings forth in thirty days. These facts we have not been able to ascertain; and it is singular, that, in Italy, where the animal is common, and where, at all periods, there have been learned philosophers and acute observers, no man has ever written its history. On this subject, as well as on many others, Aldrovandus has only copied Gesner; and the Gentlemen of the Academy, who have described and dissected eight porcupines, say little or nothing concerning their oeconomy and manners. We only learn from the testimony of travellers, and of those who keep the porcupine in menageries, that, in a domestic state, it is neither wild nor ferocious, but only anxious for liberty; and that, by the assistance of its fore teeth, which are strong and sharp, like those of the beaver, it cuts wood, and pierces the door of its cage\*. We likewise know, that it is easily fed upon crumbs of bread, cheese, and fruits; that, in a state of liberty, it lives upon roots and wild seeds; that, when it gets admission to a garden, it makes great havock, and devours all kinds of pot-herbs with avidity; that, like most other animals, it

\* There are porcupines in Guiney. They grow to the height of two or two and a half feet, and their teeth are so sharp and strong that no wood can resist them. I put one into a barrel, imagining that it was sufficiently secured: But, in one night, it gnawed through the wood, and made its escape; *Page de Buffon, p. 253.*

becomes

becomes fat about the end of summer; and that its flesh, though somewhat insipid, is not bad to eat.

By examining the form, substance, and organization of the quills, we easily perceive that they are tubes, and only want vanes to be real feathers. From this circumstance, the porcupine constitutes the shade between quadrupeds and birds. The quills, particularly those near the tail, make a noise by striking each other when the animal walks. He can elevate or depress his quills, as the peacock raises or lowers the feathers of his tail. Hence the muscular part of the skin is capable of acting with force, and its structure is nearly the same with that of some birds. We have marked these relations, though not very apparent. It is always fixing one point in Nature, who often escapes our researches, and seems, in her productions, to sport with those who wish to cultivate her acquaintance.