THE RAT*.

NATURE, by deſcending gradually from great to ſmall, from ſtrong to weak, counterbalances every part of her works. Attentive ſolely to the preſervation of each ſpecies, ſhe creates a profuſion of individuals, and ſupports by numbers the ſmall and the feeble, whom ſhe hath left unprovided with arms or with courage. She has not only put thoſe inferior animals in a condition to perpetuate and reſiſt by their own numbers, but ſhe ſeems, at the ſame time, to have afforded a ſupply to each by multiplying the neighbouring ſpecies. The rat, the mouſe, the field mouſe, the water-rat, the ſhort tailed

* The rat has two cutting teeth in each jaw, four toes before, five behind, and a ſlender taper tail, naked or very ſlightly haired. It is of a deep iron gray colour, nearly black; the belly is cineritious, and the legs duſky and almoſt naked. There is a claw, in place of a fifth toe, on the fore-feet. Its length is ſeven inches, and that of the tail near eight; *Pennant's Synopſ. of Quad. p.* 299.

In Greek, Μυς; in Latin, *Mus major*, *Rattus*; in Italian, *Rato di caſa*; in Spaniſh, *Raton*; in German, *Ratz*; in Swediſh, *Rotta*; in Poliſh, *Szczurez*; in French, *Le Rat*.

Mus domeſticus major, ſive rattus; *Geſner. Quad. p.* 731. *Ray, Synopſ. Quad. p.* 217.

Mus rattus, cauda elongata ſubnuda, palmis tetradactylis, cum unguiculo pollicari, plantis pentadactylis; *Linn. Syſt. p.* 83.

Mus rattus domeſticus; *Klein. Quad. p.* 75.

Mus cauda longiſſima, obſcure cinereus: *Briſſon. Regn. Anim. p.* 168.

field-mouſe, the fat ſquirrel, the garden ſquirrel, the dormouſe, the ſhrew-mouſe, and ſeveral others which I mention not, becauſe they do not belong to our climate, form ſo many diſtinct and ſeparate ſpecies, but ſo analogous to each other, that, if any one ſhould happen to fail, the gap in the genus would hardly be perceptible. It is this great number of neighbouring ſpecies which hath given to naturaliſts the idea of genera; an idea which can only be employed when we view objects in general, but which vaniſhes whenever we conſider Nature in detail.

Men at firſt gave diſtinct names to objects which appeared to differ from each other; and, at the ſame time, they gave general denominations to objects that ſeemed to be nearly ſimilar. Among a rude people, and in the infancy of all languages, there is hardly any thing but general terms, or vague and ill-formed expreſſions for objects of the ſame order, though very different from each other. An oak, a beech, a linden-tree, a fir, a pine, a yew, would, at firſt, have no other name but that of a *tree*; afterwards the oak, the beech, and the yew, would all be called *oak*; when theſe were diſtinguiſhed from the fir, the pine, and the yew, the three latter would be called *fir*. Particular names could only be invented in conſequence of a minute examination of each different ſpecies; and the numbers of theſe names are augmented in proportion to the extent of our knowledge of Nature: The more we

we examine her, proper and particular names will become more frequent. When natural objects, therefore, are repreſented to us, under general denominations, or by claſſes and genera, it is recalling the darkneſs peculiar to the infant ſtate of human knowledge. Ignorance is the parent of genera; but ſcience will for ever continue to create and to multiply proper names; and I ſhall never heſitate in adding to their number, as often as I have occaſion to delineate different ſpecies.

Several ſpecies of ſmall animals have been confounded under the generic name of *rat*: But we ſhall confine this name ſolely to the common rat, which is of a blackiſh colour, and infeſts the habitations of men. The rat commonly frequents granaries and barns, and from thence, when food is ſcarce, comes into our houſes. He is a carnivorous, or rather an omnivorous animal: He ſeems only to prefer hard ſubſtances to thoſe which are tender or ſucculent. He gnaws linen, cloths, furniture, makes holes in the walls, lodges in the ceilings, and in the void ſpaces between the wall and the wainſcotting. From theſe lurking places the rats iſſue in queſt of food, and tranſport thither every ſubſtance they can drag, forming conſiderable magazines, eſpecially when they have young to provide for. The female brings forth ſeveral times a-year, but always in the ſummer ſeaſon. The litter generally conſiſts of five or ſix. They

are fond of warmth, and, in winter, inſinuate themſelves near the chimneys, or lodge among hay or ſtraw: In ſpite of cats, poiſon, and ſnares, theſe animals multiply ſo greatly, that they often do much damage. In old country-houſes where grain is kept, and where the vicinity of barns and magazines of hay facilitates their retreat, they often increaſe ſo prodigiouſly, that the poſſeſſors are obliged to remove and deſert their habitations, unleſs the rats happen to deſtroy each other. It is well known, that rats, when pinched for food, eat one another. When a famine is created by too great a number being crowded into one place, the ſtrong kill the weak, open their heads, and firſt eat the brain, and then the reſt of the body. Next day, the war is renewed, and continues in the ſame manner till moſt of them are deſtroyed. This is the reaſon why theſe animals, after being extremely troubleſome, diſappear all of a ſudden, and return not for a long time. The ſame thing happens to field-mice, whoſe prodigious multiplication is interrupted only by the hoſtilities they exerciſe on each other, when proviſions become ſcarce. This ſudden deſtruction is aſcribed by Ariſtotle to the operation of rains. But rats are not expoſed to rain, and the field-mice know how to guard themſelves againſt its effects; for the holes they inhabit are not even moiſt.

The rats are as laſcivious as they are voracious: They ſqueak during their amours, and cry when

when they fight. They prepare a bed for their young, and ſoon learn them to eat. When the young begin to iſſue from their hole, the mother watches, defends, and even fights with the cats in order to ſave them. A large rat is more miſchievous, and nearly as ſtrong, as a young cat. The fore-teeth of the rat are long and ſtrong: The cat is not a good biter; and, as ſhe uſes her claws only, ſhe requires to be both vigorous and accuſtomed to fight. The weaſel, though ſmaller, is a more dangerous and formidable enemy, becauſe he follows the rat into his hole. Their ſtrength being nearly equal, the combat often continues long: But the method of uſing their arms is very different. The rat wounds only by reiterated ſtrokes with his fore-teeth, which are rather deſtined for gnawing than biting; and, being ſituated at the extremity of the lever or jaw, they have not much force. But the weaſel bites cruelly with the whole jaw, and, inſtead of quitting his hold, he ſucks the blood from the wounded part; and, therefore, the rat uniformly falls a ſacrifice to the weaſel.

Of this ſpecies, as in all thoſe which conſiſt of numerous individuals, there are many varieties. Beſide the common rat, which is blackiſh, ſome are brown, others gray, reddiſh, and even totally white. The white rats have red eyes, like the white rabbit, the white mouſe, and all the other animals which are perfectly white. The whole ſpecies, and its varieties, appear to be natives of

temperate climates, and are more diffuſed over the warm than the cold regions. There were no rats originally in America *; but thoſe imported from Europe multiplied ſo prodigiouſly, that they were long the ſcourge of the colonies, where they had no enemies but large ſerpents, which ſwallowed the rats alive. They have been carried by ſhips into the Eaſt Indies, and all the iſlands of the Indian Archipelago †; and are found likewiſe in Africa ‡. But, towards the north, they have never multiplied beyond Sweden; for what are called Norwegian and Lapland rats, are animals of a different ſpecies.

SUPPLEMENT.

PONTOPPIDAN remarks, 'that neither the 'wood nor water rats can live farther north than 'Norway; that there are ſeveral diſtricts, as that 'of Hordenver in the dioceſe of Bergen, and others 'in the dioceſe of Aggerhum, where no rats are 'to be found; and that the rats on the ſouth 'banks of the river Vormen ſoon periſh when

* See la Deſcript. des Antilles, par le P. du Tertre, tom. ii. p. 303. L'Hiſt. Nat. des Antilles, p. 261. Nouveaux Voyages aux Iles de l'Amerique, tom. iii. p. 160. Dampier, tom. iv. p. 225. † Lettres Edifiantes, Recueil xviii. p. 161.

‡ Voyage de Guinée par Boſman, p. 241. L'Hiſt. Gen. des Voyages par M. l'Abbé Prevôt, tom. iv. p. 238.

'carried

'carried to the north ſide of it. This difference,' he adds, 'can only be aſcribed to certain exhala-'tions of the ſoil, which are deſtructive to theſe 'animals.' Theſe facts may be true: But we have often diſcovered that Pontoppidan is an author who deſerves not entire credit.

M. le Vicomte Querhöent has favoured me with the following remarks: That the rats, tranſported from Europe to the Iſle of France, increaſed to ſuch a degree, that, it is alledged, they made the Dutch leave the iſland. The French have diminiſhed the number, though great quantities of them ſtill remain. Some time, adds M. de Querhöent, after a rat reſides in India, he acquires ſo ſtrong a ſmell of muſk that he ſcents every thing for a conſiderable ſpace round his habitation; and it is alledged, that, when he comes near wine, he makes it turn ſour.—This Indian rat appears to be the ſame which the Portugueſe call *cheroſo*, or odoriferous rat. La Boullaye-le-Goux ſays, 'that it is very ſmall, and nearly of 'the figure of the ferret; that its bite is venom-'ous; that its ſmell is immediately perceived 'when it enters a chamber; and that it cries '*kric*, *kric*, *kric* *.'

This rat is likewiſe found in Madura, where it is called the *ſcented rat*. It is mentioned by the Dutch voyagers, who tell us, that its ſkin is as fine as that of the mole, but not ſo black †.

* Voyage de la Boullaye-le-Gouz, p. 256.

† Recueil des Voyages qui ont ſervi à l'Etabliſſement de la Comp. des Indes Orient. tom. ii. p. 275.