

and, it is alledged, that those of America, where they are very numerous, came originally from the Old Continent. It is, however, certain, that this little animal follows man, and flies from uninhabited places, probably on account of its natural appetite for bread, cheese, butter, oil, and other aliments which men prepare for themselves.

S U P P L E M E N T.

WHITE mice, with red eyes, are found not only in our temperate climates, but in the southern and northern regions of both Continents. 'White mice, with red eyes,' says Pontoppidan, 'have been found in the small village of Ramf-dallem; but, whether they are indigenous, or brought from the East-Indies, is uncertain.' This last supposition seems to have no foundation; for it is natural to expect white mice in Norway, as well as every where else in Europe; and mice, in general, are equally numerous in America as in the Old Continent.

The Long-tailed FIELD-MOUSE*.

THIS animal is less than the rat, and larger than the mouse. It never lives in houses, but is found in the fields and woods. Its eyes are remarkably large and prominent; and it differs still more from the rat and mouse, by the colour of its hair, which is whitish under the belly, and of a reddish brown on the back. It is very generally and copiously diffused, especially in elevated countries. It seems to take a considerable time in arriving at full growth, because it varies greatly in size. The largest are between four and five inches long; and the smaller ones, which appear likewise to be adults, are an inch shorter. And, as we find them of all intermediate sizes, both the

* This animal has full black eyes; its head, back, and sides are of a yellowish brown, mixed with some dusky hairs; the breast is of an ochre colour; and the belly is white: its length, from the tip of the nose to the tail, is four inches and a half, and that of the tail, which is slightly covered with hair, is four inches; Pennant's *Synops. of Zool.* p. 302.

Mus agrestis major, macrourus Gessneri; Ray, *Synops. Zool.* p. 219.

Mus cauda longa, supra e fusco flavescens, infra ex albo cinereus; Brisson, *Zool.* p. 123.

Mus domesticus medius; Ray, *Synops. Zool.* p. 218.

Mus sylvaticus, cauda longa, palmis tetradactylis, plantis pentadactylis, corpore griseo pilis nigris, abdomine albo; Linn.

Zyl. Nat. p. 34.

Le Mulot; Buffon.

great

great and small are unquestionably the same species. Ignorance of this fact has, probably, led some naturalists to make two species of them, the one called *the great field-rat*, and the other *the field-mouse*. Ray, who first fell into this blunder, seems to acknowledge that he knew but one species*. And though the short descriptions he has given of each species appear to differ, we ought not to conclude that both exist: 1. Because he himself knew but one. 2. Because, after all the researches I have made, I have not been able to discover more than one kind; because Gesner, and other naturalists, mention one species only, under the name of *mus agrestis major*, which they say is very common; and because Ray says that the other kind, called *mus domesticus medius*, is also very common: Hence, it is apparent, that none of these authors have ever seen both kinds, since they acknowledge both to be very common. 3. Because in this single species, individuals are found of a larger and lesser size, this circumstance might lead them to consider the small as of one species, and the larger of another. Lastly, because the descriptions are too vague and inaccurate to establish a specific difference.

The ancients, indeed, mention two species, the one under the denomination of *mus agrestis major*, the other under that of *mus agrestis minor*. These two species are very common, and we know

* De hac specie mihi non undequaque satisfactum est; Ray, *Species Quad.* p. 219.

them

them as well as the ancients: The first is our long-tailed field-mouse: The second is not the *mus domesticus medius* of Ray, but another animal, known by the name of the *short-tailed field-mouse*, or *little field-rat*. And, as it differs both from the rat and the long-tailed field-mouse, I have given it its Italian name, *campagnoli* or *campagnol*.

The long-tailed field-mouse, as I formerly remarked, lives in dry and elevated grounds. In the woods and adjacent fields they are found in vast numbers. They retire into holes among the brushwood and under the trunks of trees, where they amass great quantities of acorns, nuts, and beech-mast; sometimes a whole bushel is found in a single hole; and this hoard is not proportioned to the wants of the animal, but to the capacity of the place where it is deposited. These holes are generally more than a foot under ground, and often divided into two apartments, the one for living in along with their young, and the other for a magazine. I have frequently seen great damage done to the plantations by these animals. They carry off the new sown acorns; by following the furrow of the plough, they dig up one after another, not leaving a single seed. This happens chiefly in those seasons when the acorns are scarce: Not finding enough in the woods, they come in quest of them in the cultivated fields, and do not eat them on the spot, but transport them to their holes, where they amass such quantities,

ties, that they often corrupt. These creatures alone do more mischief in a nursery of trees than all the birds and other animals put together. The only way to prevent this damage is, to lay traps at ten paces asunder through the extent of the sown ground. No other apparatus is necessary than a roasted walnut placed under a flat stone, supported by a stick. The animals come to eat the walnut, which they prefer to acorns; and, as the walnut is fixed to the stick, whenever they touch it, the stone falls and crushes them to death. I have used the same expedient for the destruction of the short-tailed field-mouse, which likewise destroys acorns. When I began this operation, I desired all the mice that were caught by the traps to be brought to me, and found, with astonishment, that above 100 were taken each day, from a piece of ground consisting only of about 40 French arpents. From the 15th of November to the 8th of December, above 2000 were slain in this manner. Their numbers gradually decreased till the frost became severe, when they retire to their holes, and feed upon the magazines they have collected. It is more than 20 years since I made this trial, which I always repeated when I sowed tree-seeds, and never failed to catch vast quantities of these mice. They abound chiefly in autumn; their numbers being much less in the spring: For, if provisions fail during the winter, the strong devour the weak. The long-tailed field mice likewise eat the short-tailed species, and

even thrushes, blackbirds, and other birds which they find entangled in snares. They first eat the brain, and then the rest of the body. I once kept a dozen of these mice in a cage, and furnished them with food every morning at eight o'clock. One day they were neglected for about a quarter of an hour, when one of their number was eaten up by the rest; next day another suffered the same fate; and, in a few days, one only remained: All the others had been killed, and partly devoured; and even the survivor himself had his feet and tail mutilated.

The rat is very prolific; but the long-tailed field-mouse is more so. The latter brings forth more than once a-year, and the litters often consist of nine or ten, while those of the rat never exceed five or six. In one hole I have found two mothers and twenty young. This animal is very generally diffused over Europe. It is found in Sweden, and is called by Linnæus* *mus cauda longa, corpore nigro flavescente, abdomine albo*. It is very common in France, Italy, and Switzerland: Gesner calls it *mus agrestis major*†. The species is also numerous in Germany and in Britain, where it is called the *field-mouse*. It has for enemies, wolves, foxes, weasels, birds of prey, and its own species.

* Faun. Suec. p. 11.

† Gesner, Quad. p. 733. Icon. Quad. p. 116.