



THE MUSK RAT.

THE musk rat, which is so closely allied in form and habits to the beaver, does not, like that timid animal, retire from the vicinities inhabited by man, but, relying on its peculiar instinct for concealment, remains, secure, notwithstanding the changes induced by cultivation, and multiplies its species in the very midst of its enemies. Thus, while the beaver has long since entirely disappeared and become forgotten in the Atlantic States, the musk rat is found within a very short distance of our largest and oldest cities, and bids fair to maintain its place in such situations during an indefinite future period.

The musk rat owes this security to its nocturnal and aquatic mode of life, as well as to the peculiar mode in which its domicile is constructed. Along small streams, mill-races, and ponds, where the banks are of some elevation and strength, the musk rats form large and extensive burrows. These have the entrance always in the deep water, so as to be entered or left without betraying the presence of the animal. The mouth of the burrow ascends from its commencement near the bottom, and slopes upwards until it is above the level of the high water. The burrow then extends to great distances, according to the numbers or necessities of the occupants. Like most other animals residing in such burrows, they frequently excavate them beneath the roots of large trees, where they are perfectly secure from being disturbed by having their burrow broken into from above.

The injuries done by the musk rat to the banks thrown up to exclude the tide from meadows and other grounds, are frequently very extensive. The tide en-

croaches more and more on the burrow as the soil softens and is washed away; the animals extend their excavations in various directions, in order to free themselves from the inconvenience of the water, and at length, from the co-operation of both causes, the bank caves in and the water is allowed free access, often laying waste the most valuable parts of the farm. To understand the extent to which such mischief may be carried, it is sufficient to take a walk along the banks thrown up to protect the meadows on the Delaware, on both sides of the river. Similar, though not as extensive injury, is produced along the borders of ponds, races, and small streams, by the caving in of the burrows formerly tenanted by the musk rat.

Where musk rats frequent low and marshy situations, they build houses, which, in form and general appearance, resemble those made by the beaver. These edifices are round, and covered at top in form of a dome, and are built of reeds, flags, etc., mingled with mud. Instead of one place of entrance and exit there are several subterraneous passages, leading in different directions, and as these are extensive, the musk rats when disturbed take refuge in them. Numerous individuals, composing several families, live together during the winter season; but in the warm weather the house is entirely deserted, and the musk rats live in pairs and rear their young, of which they have from three to six at a litter,

The musk rat builds in a comparatively dry situation, at least not in a stream or pond of water, but in the marsh or swamp. He requires no dam, and does not, like the beaver, lay up a stock of winter provision, neither does he erect so strong and durable a dwelling, as it

is not to be repaired, but deserted for a new one the following season.

Speaking of the musk rat, as observed by him in the Hudson's Bay country, Hearne remarks, that "instead of making their houses on the banks of ponds or swamps, like the beaver, they build on the ice, as soon as it is skinned over, and at a considerable distance from the shore, always taking care to keep a hole open in the ice to admit them to dive for their food, which consists chiefly of the roots of grass. The materials made use of in building their houses are mud and grass, which they bring up from the bottom. It sometimes happens in very cold winters that the holes in their houses freeze over, in spite of all their efforts to keep them open. When that is the case, and they have no provision left in the house, the strongest prey upon the weakest, till by degrees only one is left in the whole lodge. I have seen several instances sufficient to confirm the truth of this assertion: for when their houses were broken open, the skeletons of seven or eight have been found, and only one entire animal. Though I have before said that they generally build their houses on the ice, it is not always the case: for in the southern parts of the country, particularly about Cumberland House, I have seen, in some of the deep swamps that were overrun with rushes and long grass, many small islands that have been raised by the industry of those animals, on the tops of which they had built their houses like the beaver. The tops of these houses are favourite breeding places for the geese, which bring forth their young brood there without the fear of being molested by foxes, or any other destructive animal, except the eagle.

The musk rat feeds upon roots, etc., of aquatic plants, and is especially fond of the *Acorus verus*, or *Calamus aromaticus*,

which grows abundantly in most of the marshy vicinities inhabited by the musk rat. It has been imagined that this animal feeds also upon fish, merely from its habit of living much in the water. There is the same reason for believing that the beaver is piscivorous, an opinion which the structure of the teeth, stomach, and intestines of both animals sufficiently contradicts.

The musk rat is an excellent swimmer, dives well, and remains for a considerable time under water. It is rare to have an opportunity of seeing the animal during the daytime, as it lies concealed in its burrow, but by watching during moonlight nights, in situations not much frequented by human visitors, the musk rat may be seen swimming in various directions, and coming on shore for the sake of seeking food, or for recreation.

The musk rat has its nose thick and blunt at the end, and short ears, nearly concealed in fur. Its body and head very much resemble those of the beaver, but differ from it in colour, being a reddish brown. The belly and breast are ash colour, mingled slightly with ferruginous. The feet and tail of the musk rat are also remarkably different from those of the beaver; all the toes are free and unconnected. On the hinder, instead of a web uniting the toes, there is a stiff fringe of bristly hair, closely set and projecting from the sides of the toes. The tail is thin at the edges, compressed so as to be vertically flattened, covered with small scales, having a slight intermixture of hair, and is about nine inches long, being nearly of the length of the body, which measures about twelve inches from the end of the nose to the root of the tail. The powerful odour of musk renders the flesh of the musk rat of little value, and few can eat it. The skin is highly valued on account of the fineness of its fur.