

to perpetuate the species to an injurious extent, and probably nullify every attempt to procure its extinction. Any remedy of this kind, therefore, to be effectual, must be general. Hence the necessity for the aid and the interference of authority.

THE WHEAT DESTROYERS.

The subject of insect depredation appears to excite a greater interest this season among the wheat-growers of Canada, than at any former period. The obvious reason is that those depredations have come to be serious for the present, and alarming for the future. As appears from communications in the newspapers, a good deal of misapprehension still exists as to the kind of insect now doing the mischief. The most common mistake is that of calling it the *weevil*. If this name were popularly applied to the same insect, the mistake would be of little consequence. But we notice that it is applied indiscriminately to the larvæ of the midge, and the wheat-moth, or caterpillar. This creates confusion, and renders the statements as to its operations of little or no value for the purpose of estimate, comparison, or scientific enquiry. We shall state in a few words the peculiarities of these three insects,—the Weevil, Midge, and Caterpillar. We had hoped to have presented, in this number, engravings of each of these insects in their *fly* as well as *larva* state, but the only wood-engraver within reach, could not, on account of illness, prepare them in time. Probably they will be given in our September number.

The WEEVIL (*curculio granaria*) of Linn., (*calandra granaria* of modern entomologists) is so seldom seen in this latitude that it is unnecessary to describe it at much length. The perfect insect is a slender *beetle*, of a dark and pitch-red colour with a long slender snout, a punctured thorax, and furrowed wing-covers. In the Southern States, wheat stored in mills or granaries suffers considerably from its attacks, but it is seldom seen as far north as Canada.

There are several *Grain-worms*, or caterpillars. The kind we have noticed in our own fields,—and the same appears to have extended over a large part of Canada—is apparently the *Tinea granella* of European entomologists. The moth or miller lays its eggs on the grain, and the grub or worm when hatched feeds on the grain. Each worm appropriates a kernel to himself. It is said that rye, oats, and barley are subject to its attacks as well as wheat. The worm of this moth, says Dr. Harris, “is a soft naked caterpillar, with sixteen legs, and measuring four or five-tenths of an inch. The colour is a light ochre or buff colour, with a reddish head.” We may add that the specimens we have examined have three whiteish lines along the back. They spin a web, though we have never found them “enveloped in a web” as mentioned by Mr. Gaylord in his essay, published in 1843. Though by no means a desirable visitor, they cause but little injury compared with the *midge*.

The MIDGE (*eccidomyia Tritici*) was first observed on this continent about the year 1828. It began its depredations in Lower Canada and the adjacent States. It has since extended over all the Northern and Eastern States, and within the last two or three years has invaded the great wheat-growing districts of the West. We have