

A NEW SPECIES OF GRASS-GRUB.

A SERIOUS PEST OF SEEDLING FOREST-TREES.

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A CONSIDERABLE loss is annually sustained in the seedling-beds at the State Forestry nurseries through the roots of the young trees being destroyed by the larvæ of certain species of grass-grubs. I was under the impression that the damage was occasioned by the ordinary grass-grub (*Odontria zealandica*), so well known in New Zealand on account of its very serious effect on pastures. A visit to the Whakarewarewa State Nursery in the second week of last December showed conclusively that the insect damaging the seedling trees at that nursery was not *O. zealandica*, as full-grown larvæ were abundant in the larch-beds at that date. If the damage had been due to *O. zealandica* there would have been very few larvæ present, as normally the majority would have pupated and emerged during the latter part of November.

No method for distinguishing the various species of grass-grubs while in the larvæ or grub stage has yet been worked out, so it was necessary to wait till the beetles emerged before the species could be ascertained. From the size of the grubs they were thought to belong to one of the larger species, such as *O. sandageri* or *O. striata*. On the 27th and 31st January a fine series of the beetles collected in the ground before they had taken to the wing was received by me from Mr. H. A. Goudie, Superintending Nurseryman of the Forestry Branch of the Lands and Survey Department. Being unable to determine the species, I sent specimens to Major Thomas Broun, the well-known Coleopterist, who decided they belonged to a new species, and named it *Odontria puncticollis*. He very kindly drew up a diagnosis of this species, and this is appended.

The following notes supplied by Mr. Goudie give some interesting information with regard to this insect:—

On the 23rd January a blank portion of one of the larch-beds, where all the trees had been killed, was selected: 1½ ft. by the full width of the bed—viz., 6 ft. All the soil to a depth of 9 in. in this space was put through a sieve. Ten grubs were obtained in this way, most of them from 6 in. to 9 in. from the surface. Below this the subsoil to a depth of 6 in. was taken out and screened, with the result that I secured twenty fully developed beetles, and eleven in the pupa stage, or forty-one in all. If this is representative of the whole of the beds, then there are about five thousand grubs in each bed, or about one grub to three trees. Probably the grubs have been going down into the subsoil since about the beginning of November. They apparently