

Plasmodiophora brassicæ.

From certain experiments which had been carried on at Yarmouth, N. S., it has been found that excellent seed of roots can be grown there. Eleven hundred pounds of seed per acre is about the average for mangels.

Mr. Clark discussed the methods adopted by the seedsmen in buying and distributing seed. He also stated how it was that seed-growing in such places as Waterloo County, Ontario, came to be started in Canada some years ago. It was a result of judicious help given by the federal Government. He further pointed out the fact that the sub-vention offered this year by the Government should help in the production of more home grown seed. The last few years over 1,200,000 pounds of mangel seed have been imported into this country, each year, much of which might be grown here. The subject provoked considerable discussion by the members.

F. E. B.

THE VALUE OF SOME MAMMALS AND BIRDS AS
DESTROYERS OF NOXIOUS INSECTS.*

BY NORMAN CRIDDLE.

In these days of specialization, we are apt to overlook the close relationship that other classes or orders hold in the economies of nature. Yet, as our work proceeds we find that its scope must of necessity be widened to take in, at least, an elementary understanding of other things. The student, for instance of lepidoptera will find it necessary to learn something of botany so that he may recognize the various plants acting as unwilling hosts, or being fertilized through the agencies of the insects visiting them. He will also require some knowledge of hymenopterous insects and of diptera, which in their larval life sometimes live as uninvited guests within the caterpillars.

Then again, there are the birds and mammals which often play a not unimportant part in the control of insect outbreaks. As these last seldom receive their due in entomological journals, I have decided to select them for my theme, trusting that the outcome will not prove altogether without interest.

In the year 1913, being busily engaged in the task of collecting June beetles (*Lachnosterna* spp.) for breeding purposes, I had occasion to visit nightly a favourite locality for those insects, the time being from dusk to midnight. Here, lantern in hand, I examined the various trees for specimens and often sat watching the insects' habits, collecting such individuals as seemed desirable.

*Contribution from the Entomological Branch, Department of Agriculture, Ottawa.