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Entomogenous Microorganisms of New Zealand

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INTRODUCTION

ALTHOUGH insect diseases have been known since ancient times, it is only in recent years that they have been studied in detail, and not as novelties incidental to other biological studies of insects. It is not surprising, therefore, that the pathogens of New Zealand insects have not been brought together in one publication before. Such information as has been published is scattered through numbers of scientific publications and some unpublished in the form of student theses. The information recorded herein is still far from complete, but it is the purpose of this paper to bring together what is known in the hope that it will encourage further investigations into this particular aspect of entomology, and assist the work of future insect pathologists, and field experiments in progress with microbial insecticides.

The entomogenous microorganisms mentioned here belong to the bacteria, fungi, viruses, nematodes and protozoa. Future surveys will almost certainly add to the list contained in this paper.

The entomogenous microorganisms are first listed under five main headings. This records the host attacked and distribution where it is known. A second list records the insects and their pathogens together with a reference to the literature. Where those are marked by an asterisk the author is indebted to Professor E. A. Steinhaus, Department of Insect Pathology, University of California, for diagnosis. The nuclear polyhedrosis of *Wiseana** sp. marked with a double asterisk was identified by Dr Y. Tanada of the same University. I am also indebted to Field Officers of the Department of Agriculture who took part in the Survey, to officers of Entomology Division, D.S.I.R., and Massey and Lincoln Colleges, and Professor J. Marples, of Otago University, for information and useful discussions.

* The name of the genus *Oxycanus* has recently been changed to *Wiseana*.