

April 1981

## Two *Entomophthora* Species Associated with Disease Epizootics of the Alfalfa Weevil, *Hypera Postica* (Coleoptera: Curculionidae), in Ontario

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### Recommended Citation

Harcourt, D. G.; Guppy, J. C.; MacLeod, D. M.; and Tyrrell, D. 1981. "Two *Entomophthora* Species Associated with Disease Epizootics of the Alfalfa Weevil, *Hypera Postica* (Coleoptera: Curculionidae), in Ontario," *The Great Lakes Entomologist*, vol 14 (1)  
Available at: <https://scholar.valpo.edu/tgle/vol14/iss1/9>

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**TWO ENTOMOPHTHORA SPECIES ASSOCIATED WITH DISEASE  
EPIZOOTICS OF THE ALFALFA WEEVIL, *HYPERA POSTICA*  
(COLEOPTERA: CURCULIONIDAE), IN ONTARIO<sup>1</sup>**

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ABSTRACT

Recent studies have shown that disease epizootics in Ontario populations of the alfalfa weevil, *Hypera postica* (Gyllenhal), are caused by a complex of two fungi.

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Since 1975, natural populations of the alfalfa weevil, *Hypera postica* (Gyllenhal), have been reduced to near tolerable levels throughout Ontario by recurrent epizootics of a fungus disease which attacks and kills the larvae and cocooned stages (Harcourt et al. 1977). Management practices now recognize the disease as a key component in control of the pest.

Recent field and laboratory studies have revealed a disease complex of two fungi which have very similar asexual or conidial states. This similarity has led to taxonomic difficulties which are still not fully resolved. One species, which has long been recognized as a natural control agent in populations of the clover leaf weevil, *H. punctata* (Fabricius), throughout North America, has recently been renamed *Zoophthora phytonomi* (see Ben-Ze'ev and Kenneth 1980). Our discovery of smooth-walled resting spores associated with this pathogen in both weevils supports this change. The second species, which was first observed in Canada in 1973 and described by us under the name *Entomophthora phytonomi* Arthur (Harcourt et al. 1974), must therefore be renamed, but may be referable to *E. punctata* Garbowski if further studies confirm our 1974 proposal that its resting spore state is the rough-walled yellowish-brown spores found in the alfalfa weevil. While *Z. phytonomi* has been shown to infect both weevils, we have so far observed the second species in Ontario only on the alfalfa weevil.

LITERATURE CITED

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