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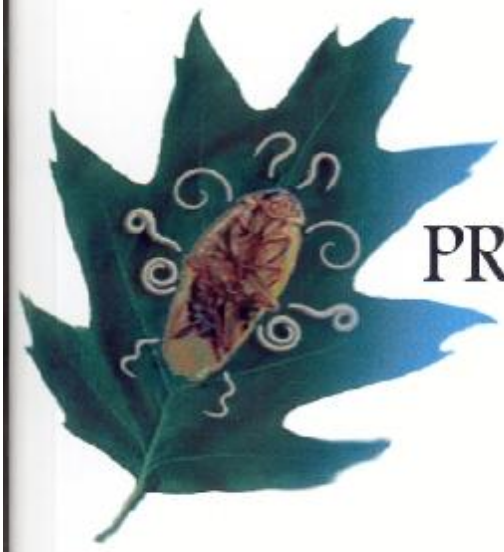

PROGRAM and ABSTRACT BOOK

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Comparative microbial control of two serious branch borer, *Osphranteria coerulescens* Redtenbacher (Col.: Cerambyciae) and *Zeuzera pyrina* L. (Lep.: Cossidae)

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Abstract

Control of Rosaceous branch borer, *Osphranteria coerulescens* Redtenbacher, is too complicated especially during its outbreaks after extensive drought. Difficulty of chemical applications against such these wood borers, as leopard moth, *Zeuzera pyrina* L. on different Rosaceous and walnuts trees, have addressed biological control agents. Some of their tolerant natural enemies, several fungi, bacteria and nematodes, have been considered, introduced and tested as population decreasing agents of these pests. By recognizing native entomopathogenic nematodes (EPNs) from soil habitat of leopard moth, *Zeuzera pyrina* L., near Arak, Markazi province of Iran, laboratory tests carried out on the wood borers successfully. The mostly closed habitat of larvae of *O. coerulescens* has prevented a direct field test yet. But, a field test by injecting concentrated nematode suspensions of *Steinernema carpocapsae* and *Heterorhabditis bacteriophora* into the *Z. pyrina* galleries in walnut stems or branches in an appropriate CRD experiment approved the laboratory efficiency of the nematodes. The *S. carpocapsae* caused 63% mortality in *Z. pyrina*. Other results hopefully addressed biological control of not only *Z. pyrina* but also *O. coerulescens* after further investigation and combining with other control measures especially during autumn and winter when the bored galleries of *O. coerulescens* are more recognizable.

Key word: Insect pathogen, *Osphranteria coerulescens, Zeuzera pyrina*,microbial control, Iran