عنوان مقاله:

Pathogenicity of Lecanicillium longisporum (Ascomycota: Hypocreomycetidae) on the aphid Cinara pini (Hemiptera: Lachnidae) in laboratory conditions

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خلاصه مقاله:

The aphid species, Cinara pini (Linnaeus, ۱۷۵۸) reported in our previous work as a new aphid on pinus trees for Iran, was described using the classic method and through analysis of COI gene sequence. In the next step, we addressed the efficiency of the entomopathogenic fungus, Lecanicillium longisporum (Zimm.) Zare and Gams strain LRC ۱۹۰, on the aphid. The fungus was administered to the second instar nymphs and adults using topical application procedure. The results indicated that the entomopathogen caused ۹۰% mortality in adults over seven days at a concentration of ۱۰۸ spores/ml, while the same control level was achieved for nymphs by ۸ × ۱۰۷ spores/ml. The LC۵۰ values were obtained as ۱.۲ × ۱۰۶ and ۶.۹ × ۱۰۵ spores/ml for adults and nymphs, respectively. The present study suggests that the entomopathogenic fungus, L. longisporum could be considered as a potential candidate in biocontrol programs of C. pini. This is the first report on the pathogenicity of L. longisporum on C. pini.

کلمات کلیدی:

Biocontrol, Insect pathology, DNA barcode, Pathogenecity