

ABSTRACT

M.Sc. Thesis

DIVERSITY AND DISTRIBUTION OF ENTOMOPATHOGENIC NEMATODES (STEINERNEMATIDAE AND HETERORHABDITIDAE) IN AYDIN

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This study was conducted to determine the diversity and distribution of entomopathogenic nematodes in Aydin which is one of the most important agricultural city in Turkey. There has been no record about entomopathogenic nematodes from Aydin. Totally 82 soil samples were collected and 10 entomopathogenic nematode isolates were recovered. The ratio of nematode recovery was determined as 12.1%. Nematodes were identified with molecular analyses 28S rRNA, D2D3 domains and ITS regions (internal transcribed spacer) and morphometric measurements. Isolated nematodes were identified as one *Steinernema weiseri*, two *Steinernema feltiae* and seven *H. bacteriophora* species from ten isolates. This study showed that genus *Heterorhabditis* was more common than *Steinernematids* in Aydin which has Mediterranean climate.

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Key Words: Biological Control, *Steinernema*, *Heterorhabditis*, Aydin