

عنوان مقاله:

Identifying thrips (Insecta: Thysanoptera) using DNA Barcodes

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خلاصه مقاله:

Thrips tabaci Lindeman is an extensively distributed pest insect in many areas that affects plants through direct feeding and at the same time, it makes damage as a vector of different viruses. As a basic first step tocontrol pests is authentic identification, but the inability to determine morphological characters of thrips species makes this process very difficult. For creating an identification key for T. tabaci, an economicallyimportant species present in Iran, four individuals were selected from four different sites of Mashhad and the vicinity, each as a separate population. The method was based on nucleotide sequencing analysis of themitochondrial cytochrome C oxidase I (COI) gene. Phylogenetic analyses conducted by the neighbor-joiningmethod yielded almost identical phylogenetic reconstructions of trees that separated thrips based on thegeographic origin. Molecular data indicate that different thrips species are located in distinct groups. These results show that molecular keys can be a useful method to provide much-needed information on thrips identification for pest management officers and quarantine purposes

کلمات کلیدی:

Thrips tabaci, mitochondrial DNA, barcoding, phylogenetic tree, molecular identification

لینک ثابت مقاله در پایگاه سیویلیکا:



