عنوان مقاله:

Distribution of Nosema Spp. in climatic regions of Iran

محل انتشار:

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خلاصه مقاله:

Nosemosis is one of the most prevalent bee diseases in the world causing significant economic losses in the global bee-keeping industry. This cross-sectional study was conducted during April-September, ۲۰۱۶ to investigate the prevalence of nosemosis in different climatic regions of Iran. A total of ۱۸۳ apiaries were selected based on cluster sampling and the climate of apiaries under study was classified using Domarten method. In each apiary, five percent of the colonies were randomly sampled. A total of ۱۸۳ adult bee samples were taken and examined by microscopic and polymerase chain reaction (PCR) methods for the presence of Nosema infections. According to the results, infection caused by Nosema ceranae was observed in all regions under study. The prevalence of N. ceranae was ۴۶.۴۰% (۴۲.۷۰–۵۰.۱۰). However, infection with Nosema apis was not observed in the samples in either pure form or as associated infection. Based on the results of PCR, the prevalenceof N. ceranae was ۵۳.۸۰% (۴۶.۶۰– ۶۱.۰۰) in humid, ۷۱.۰۰% (۵۳.۷۰–۷۷.۵۰) in semi-humid, ۶۸.۱۰% (۶۱.۴۰–۷۴.۸۰) in very humid, ۲۹.۴۰% (۲۲.۷۰–۳۶.۱۰) in arid, ۳۴.۳۰% (۲۷.۴۰–۴۱.۲۰) in semi-arid and ۲۴.۰۰% (۱۷.۹۰–۳۰.۰۰) in Mediterranean climates. The prevalence of infection in different climatic zones of the country was found to have significant differences ($p < ۰.۰۰۱$). According to the findings, N. ceranae was the only Nosema species in honeybees with a broad geographical dispersion in Iran. It seems that climate can influence the prevalence of mentioned parasite.

کلمات کلیدی:

Climate, Honeybee, Iran, Nosemosis, Prevalence