

研究报告

枣园昆虫群落及其与日本龟蜡蚧发生的关系

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摘要

利用群落特征指数和典型相关分析方法,分析了枣园昆虫群落的结构特征以及日本龟蜡蚧发生程度与昆虫群落之间的关系.结果表明,根据群落相异系数(0.20水平),不样地昆虫群落可划分为平原和丘陵为两类.平原地区日本龟蜡蚧发生程度高,其多样性和物种数较低,而植食性类群优势度较高;丘陵地区日本龟蜡蚧发生程度低,其多样性和物种数较高,而天敌类群优势度较高.典型相关分析表明,在 0.05 水平下,日本龟蜡蚧发生性状和群落性状的第1对和第2对典型变量相关系数分别为0.9904、0.8538,说明日本龟蜡蚧的发生状况与枣园昆虫群落性状显著相关.其中,群落多样性(3.4893)、物种数(5.8060)和优势度(6.9353)对日本龟蜡蚧的发生程度有重要影响.

关键词 [日本龟蜡蚧](#) [昆虫群落](#) [典型相关分析](#)

分类号

Insect community and its relationship with *Ceroplastes japonicus* occurrence in jujube orchards

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Abstract

Employing community character indices and canonical correlation analysis,this paper studied the insect community structure and its relationship with the occurrence degree of *Ceroplastes japonicus* in jujube orchards.The results showed that based on the community discrepancy coefficient of 0.20,the insect community in various sampling fields could be categorized into two groups, *i.e.*, plain and hill.The occurrence of *C.japonicus* in plain region was heavier,with lower insect community diversity,smaller species number,and higher dominance of phytophagous insects,while that in hill region was lighter,with higher insect community diversity,more abundant species,and higher dominance of natural enemy insects.Canonical correlation analysis indicated that at the significant level of 0.05,the first and second pairs of canonical correlation coefficients of *C.japonicus* occurrence characters and insect community characters were 0.9904 and 0.8538,respectively,suggesting that the occurrence of *C.japonicus* was significantly correlated with the characters of insect community.Community diversity (with the coefficient of 3.4893),species number (with the coefficient of 5.8060),and dominance (with the coefficient of 6.9353) had most important effects on the occurrence of *C.japonicus*.

Key words

[Ceroplastes japonicus](#) [Insect community](#) [Canonical correlation analysis](#)

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