

研究报告

## 枣园害虫、捕食性和中性昆虫群落结构及动态研究

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### 摘要

对山西省太谷地区枣园的害虫、捕食性和中性昆虫群落结构及动态进行研究, 结果表明, 不同年份枣园的害虫、捕食性和中性昆虫种类与数量均有明显差异( $P < 0.05$ ), 且树上明显大于地面. 不同年份捕食性和中性昆虫与害虫的物种数和个体数比例也不同, 其物种数和个体数随季节的暖和冷而增加和减少. 相同亚群落不同季节的垂直分层结构相似程度不同, 不同亚群落在同一季节的垂直分层相似性也不同. 总体上垂直分层明显. 枣园害虫、捕食性和中性昆虫的多样性指数随季节变化而波动. 捕食性和中性昆虫与害虫数量起伏跟随紧密, 总体呈极显著相关( $r = 0.9833, P < 0.05$ ). 层次间差异明显, 以中层相关最显著( $r = 0.9887, P < 0.01$ )

关键词 [群落结构](#) [害虫](#) [捕食性昆虫](#) [中性昆虫](#) [枣园](#)

分类号

## Community structure and its dynamics of pest, predatory and neutral insects in a jujube ecosystem

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### Abstract

An investigation on the insects in the jujube ecosystem in Taigu District of Shanxi Province, Northern China showed that more species and individual numbers of pest, predatory and neutral insects were found on the tree than on the ground. The ratio of the species and individual numbers of predatory and neutral insects to those of pest insects fluctuated from year to year. Homoptera, Coleoptera and Lepidoptera were the dominant groups of pest insects, while those of predatory insects were Coleopteran, Hemiptera, Diptera and Hymenoptera. The vertical distribution of the community structure of the same or different subcommunity was different in different seasons, as was the case of the same or different subcommunity in the same season. The diversity indexes of pest, predatory and neutral insects fluctuated with seasons, and the populations of predatory and neutral insects had a significant correlation ( $r = 0.9833, P < 0.05$ ) with the fluctuation of pest insects. There was also a significant correlation between the pest, predatory and neutral insects in different strata of tree canopy, especially in the middle stratum of tree canopy ( $r = 0.9887, P < 0.01$ ).

### Key words

[Community structure](#) [Pest insects](#) [Predatory insects](#) [Neutral insects](#) [Jujube](#)

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