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华西雨屏区白夹竹分株种群的点格局分析

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Point pattern analysis of *Phyllostachys bissetii* ramet population in West China Rainy Area.

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摘要

采用点格局分析方法对华西雨屏区白夹竹分株种群的分布格局以及不同龄级分株之间的相互关系进行分析.结果表明：白夹竹分株种群在0～0.32 m空间尺度上呈集群分布，0.64～4.48 m空间尺度上呈均匀分布，>4.48 m空间尺度上呈随机分布.各龄级分株种群在0～8.00 m空间尺度上主要呈随机分布，龄级间略有差别.其中，Ⅰ龄级与Ⅱ、Ⅲ龄级分别在1.76～4.16 m、0.32～4.16 m尺度上接近或达到空间负关联，与Ⅳ龄级在0.32～3.04 m尺度上呈显著空间负关联，表现为随着龄级差距的加大，幼龄分株与高龄级分株的空间负关联增加.白夹竹分株种群的空间格局及不同龄级分株之间的相互关系由尺度、分株龄级及环境因素共同决定.

关键词： 白夹竹 分布格局 点格局分析 空间关联

Abstract:

In this paper, point pattern analysis was conducted to study the spatial distribution of *Phyllostachys bissetii* ramet population and the spatial association between different age-class *P. bissetii* ramet populations in West China Rainy Area. The ramet population had a clumped distribution at the scale 0-0.32 m, a regular distribution at the scale 0.64-4.48 m, and a random distribution at the scale >4.48 m. Different age-class ramet populations mainly had a random distribution at the scale 0-8.00 m, though a slight difference was observed among different age-classes. The spatial association between age-class Ⅰ and age-classes Ⅱ and Ⅲ at the scale 1.76-4.16 m and 0.32-4.16 m approached to or reached to negative, respectively, while the spatial association between age-classes Ⅰ and Ⅳ at the scale 0.32-3.04 m was significantly negative, indicating that the spatial negative association between younger and elder ramet populations increased with enlarged age-class difference. The spatial pattern of *P. bissetii* ramet population and the spatial association between different age-class ramet populations were depended on spatial scale, ramet age, and environmental factors.

Key words: *Phyllostachys bissetii* distribution pattern point pattern analysis spatial association

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