

研究简报

柳杉人工林林分不同变量大小比数研究

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摘要

采用胸径、生物量、冠幅和树高计测大小比数对崇州林场柳杉林的空间结构进行分析.结果表明,以胸径和生物量为度量变量的大小比数变幅最小,可信度最高,而冠幅和树高大小比数受不同树种树型的干扰而不如前两者可靠.多样地林分的胸径和生物量大小比数平均数值明显大于冠幅和树高大小比数数值,说明林木的胸径及生物量分化程度远大于冠幅与树高的分化.通过胸径的增长实现其生物量的增长,从而增强单木的竞争优势可能是林木分化的主要策略.

关键词 [崇州林场](#) [大小比数](#) [空间结构](#) [胸径](#) [生物量](#) [冠幅](#) [树高](#)

分类号

Neighborhood comparison of *Cryptomeria fortunei* plantation by using different variables

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Abstract

Neighborhood comparison is defined as the proportion of the nearest greater neighbors to a given reference tree measured by a certain variable. By this way, the dominant differentiation degree of individual wood could be measured well. In this paper, the variables DBH, biomass, canopy breadth, and tree height were used to make the neighborhood comparison of *Cryptomeria fortunei* plantation in Chongzhou forest farm. The results showed that the neighborhood comparison measured by DBH and biomass had a slight fluctuation range and the highest reliability. Nevertheless, due to the effects of various tree types, the neighborhood comparison measured by canopy breadth and tree height was not as reliable as that measured by the former two variables. The average value of the neighborhood comparison measured by DBH and biomass was visibly higher than that by canopy breadth and tree height, indicating that the differentiation degree of individual's DBH and biomass was further greater than that of individual's canopy breadth and tree height. It was possible that increasing individual's DBH to enhance its biomass, and thus, to achieve its predominance status among individuals' competition was the main strategy of individual's differentiation. Neighborhood comparison should also be taken as an instructive reference in modifying the spatial structure of stand.

Key words

[Chongzhou Forest Farm](#) [Neighborhood comparison](#) [Spatial structure](#) [DBH](#) [Biomass](#) [Canopy breadth](#) [Tree height](#)

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