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城市化进程中上海植被

城市化进程中上海植被的多样性、空间格局和动态响应（Ⅴ）：管护放弃后城市水杉林林下植被自然演替格局的研究

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摘要 以上海市华东师范大学校园内于1995年放弃管护的水杉林林下植被为研究对象，分别于自然恢复5, 8和12年跟踪调查研究了林下植被的种类组成、物种多样性及主要物种的种群结构与高生长速率的动态变化. 调查结果显示：(1) 在放弃管护后林下木本植物种类不断减少，物种多样性下降；(2) 林下木本植物多分布于0～1.5 m层和1.5～3 m层，其中拥有丰富种源的棕榈贡献率最高；(3) 种群基径级结构的总体发展趋势由间歇型转变为单峰型. 其中棕榈有持续增加的趋势，而女贞和小叶女贞都处于衰退状态，林下植被恢复处于偏途演替阶段；(4) 适合生长于林下阴湿生境的棕榈、八角金盘和小叶女贞具有较快的高生长速率. 研究结果表明生境、种源以及种子扩散方式为人工水杉林在放弃管护后林下植被自然恢复的主要限制因素.

关键词 林下植被；自然恢复；偏途演替；限制因素

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Diversity, spatial pattern and dynamics of vegetation under urbanization in Shanghai （Ⅴ）： Natural succession pattern of understoryvegetation in *Metasequoia glyptostrobodies* plantationswithout management in urban areas (Chinese)

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Abstract

The dynamics of species composition and diversity, population structure and height growth rate of understory vegetation in the *Metasequoia glyptostrobodies* plantations abandoned for 5, 8 and 12 years in the campus of East China Normal University has been studied in this paper. The results indicated as follows. (1) The species diversity decreased after abandoned. (2) Understory vegetation mainly distributed on the layer of 0-1.5 m and 1.5-3.0, in which the main species is *Trachycarpus fortunei* due to rich seeds sources. (3) The population structure pattern shifted from sporadic type to unimodal type, and its restoration has been changing into deflected succession. And (4) *Trachycarpus fortunei* and *Ligustrum quihoui* with the character of shade-tolerant have fast height-growth rate. It is suggested that the habitat，the seed resources and the seed dispersal pattern were the key limitation of understory vegetation restoration.

Key words understory vegetation natural restoration deflected succession limitation factors

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