



黔西北喀斯特生境中主要植物的繁殖物候及种子生产

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Reproductive phenology and seed production of main plants in Karst habitat in northwest Guizhou,China

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摘要 开花和结实等繁殖过程对植物群落具有重要影响,也是研究植物与环境关系的主要方面.通过对黔西北喀斯特生境中主要植物开花物候、种子生产和散布的研究,明确了该地区植物的主要繁殖特征.结果表明:开花和果实成熟分别发生在相对集中的月份,具有相似的变化格局.始花期与开花持续时间显著相关,开花早的植物具有更长的花期以保障繁殖成功,但始花期与果始成熟期没有明显关系,植物在物候事件之间存在着权衡.群落中植物的开花物候发生了明显重叠,部分物种间重叠程度较高.不同植物果实(种子)的大小和产量具有很大差异,种子散布期在种间和年际间也不相同,大多数植物具有较长的种子散布期以适应该地区异质性极高的复杂环境.权衡关系等繁殖策略是植物适应喀斯特生境和应对环境变化的重要方式.

关键词: 繁殖物候 适应 开花物候重叠 种子生产种子散布

Abstract: Phenology of flowering and fruiting influences importantly on plant communities and it is one of the key clues to understand the relationship between plants and environment. We have studied the flowering phenology, seed production and dispersal of main plants in Karst habitat in Northwest Guizhou. The results showed that flowering and fruit ripening concentrated on some months respectively, and shared the similar pattern. Initial flowering time was significantly correlated with the duration of flowering. The plants which blossomed early had relative long flowering period, while no correlation was found between initial flowering time and onset of fruit ripening, suggesting that there are trade-off things among phenological events in the plants. Significant overlap of flowering time was found, indicating that flowering pattern of some species highly overlapped with others. Most plants performed well on reproduction, and they had various fruit sizes and seed yield in the study year. The periods of seed dispersal were different among species and among years, most plants had a long dispersal period to adapt to the environmental heterogeneity of Karst area. Reproductive strategies (including trade-offs) are the important ways for plants to adapt to the habitats and respond to the environmental changes.

Key words: reproductive phenology adaptation flowering overlap seed production seed dispersal

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