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草地植物多样性对人类干扰的多尺度响应

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摘要:

人类干扰是草地生态系统植物多样性变化的主要导因之一。植物多样性的形成依赖于一定空间和时间尺度上的生态系统结构与过程,只有在特定的时空尺度上才能充分表达其主导作用与效应。植物多样性的尺度特征和人类干扰的大尺度效应决定了草地植物多样性保护的复杂性和艰巨性。论述了不同尺度的草地植物多样性对放牧、旅游、刈割、施肥及开垦等各种人类干扰响应的方式、过程与生态后果,明确了尺度问题在研究中的重要作用,探讨了草地植物多样性在人类干扰下的变化导因与响应机制,以期为草地植物多样性的保护、合理利用及草地生态系统的可持续发展提供科学依据。

关键词: 植物多样性; 人类干扰; 多尺度; 响应; 草地生态系统

Multi scale response of plant diversity in grassland ecosystem to anthropogenic disturbances

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Abstract:

Anthropogenic disturbances are one of the important factors which cause the variations of plant diversity in grassland ecosystems. Plant diversity depends on the ecosystem structures and processes taking place over a range of spatial temporal scale. The significant dominant effect of plant diversity can only be expressed in particular spatial temporal scale. The scale features of plant diversity and the large scale effect of anthropogenic disturbances determine the complexity and arduousness of plant diversity conservation in grassland ecosystem. This paper discussed the response patterns, processes and ecological consequences of plant diversity to various anthropogenic disturbances at different spatial temporal scales, confirmed the important role of scale issues in the research of plant diversity, and probed into the causes of plant diversity changes and its related response mechanism under anthropogenic disturbances in grassland ecosystem, as well as their implications in the conservation and rational utilization of plant diversity, and grassland ecosystem sustainable development.

Keywords: plant diversity anthropogenic disturbance multi scale response grassland ecosystem

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