

论文

不同虫害干扰强度下大兴安岭呼中林区 森林景观变化模拟

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摘要:

应用空间直观景观模型(LANDIS)模拟不同虫害干扰强度下森林景观的长期变化,采用APACK统计软件计算落叶松和白桦及各龄组的分布面积以及物种格局变化.结果表明,虫害干扰降低了落叶松分布面积,提高了白桦的面积比例;降低了落叶松的成熟、过熟林面积,增加了白桦各个龄组分布面积;降低了落叶松的聚集度,增加了白桦的聚集度.虫害干扰在一定程度上降低了森林生态系统的稳定性,导致森林景观的破碎化.

关键词: 虫害干扰 森林景观 大兴安岭 LANDIS

Simulation of the forest landscape change under pest disturbances with different intensities in Huzhong area of Daxing' anling Mountains

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Abstract:

We used the spatially explicit forest landscape model (LANDIS) to stimulate the long-term forest landscape change under pest disturbances with different intensities. The species area percents and age structures of Larch and White Birch and the species patterns were derived by using APACK. Results indicate that the pest disturbances led to a decrease in area percent of Larch cohorts and an increase in area percent of White Birch cohorts. The disturbances also led to a decrease in area of over-mature and mature cohorts of Larch and an increase in area of all age-cohorts of White Birch. We conclude that forest pest reduces the stability of forest ecosystem and leads to landscape fragmentation to some extent.

Keywords: pest disturbance forest landscape LANDIS Daxing' anling Mountains

收稿日期 2010-04-21 修回日期 2010-05-10 网络版发布日期

DOI:

基金项目:

973项目(2009CB421101)、国家自然科学基金(31070422)和中国科学院知识创新工程重要方向项目(KZCX2-YW- 444)资助

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