

生态资源环境

重庆2006年夏季特大干旱期间的NDVI与城市热岛

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摘要:

为了深入了解特大干旱期间的城市热岛现象和规律,以MODIS遥感资料和重庆市主城及其周边地区的自动气象站观测资料为基础,探讨了2006年夏季重庆市特大干旱期间的植被指数NDVI和城市热岛。结果表明:2006年夏季,重庆市NDVI的变化规律是:在时间上,基本呈逐渐减小的趋势,与2006年夏季重庆市特大干旱的发展过程较为一致。在干旱的整个时段内,NDVI与热岛强度总体上呈负相关关系,NDVI值越高,热岛效应越弱。城区和郊区干旱的非同步性导致了干旱在初中期主要起增强城市热岛效应的作用,而在后期则有减弱城市热岛效应的作用。总的来说,干旱的出现加重了城市热岛效应。

关键词: 干旱; 植被指数; 城市热岛

Analysis of NDVI and Urban Heat Island during the Unusual Drought in 2006 Summer in Chongqing

Abstract:

In order to learn about urban heat island phenomena and disciplinarian during the unusual drought period, the MODIS remote sensing data and temperature data measured in automatic weather stations, which distributed in the urban and suburb were used to investigate the relation of NDVI and urban heat island during the unusual drought in 2006 summer in Chongqing. The result showed that in 2006 summer, the NDVI decreased with time, which mainly was consistent with the change trend of drought in 2006 summer in Chongqing. In the whole period of drought, in the mass NDVI negatively correlate with the urban heat island, the higher the NDVI was, the feebler the urban heat island was. Because of non-synchronization of drought in urban and suburb areas, in the early period drought strengthened urban heat island and in the later period of drought, it weakened urban heat island. All in all, the appearance of drought aggravated the degree of urban heat island.

Keywords: drought NDVI urban heat island

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