

论文

盘锦湿地芦苇群落冠层内辐射分布特征

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摘要 基于盘锦湿地芦苇群落冠层内不同层次的微气象要素与生物学特性观测,探讨芦苇群落冠层内总辐射分布与叶面积指数(LAI)的关系。结果表明:芦苇群落内太阳辐射的垂直分布在生长前期(5月)和后期(9月)呈S型曲线,生长盛期(6月和7月)呈指数曲线变化。冠层内不同层次的太阳辐射透射率随叶面积指数的增加而减少,消光系数(k)存在明显的季节变化,表现为从萌芽期到成熟期逐渐减小趋势(最小值k=0.436)。

关键词 [盘锦湿地](#) [芦苇](#) [冠层](#) [太阳辐射](#) [叶面积指数](#)

分类号

Solar radiation distribution within the canopy of *Phragmites communis* community in Panjin wetland

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Abstract Based on micro-meteorological elements observation and biological observation in different layers within the canopy of *Phragmites communis* community, the relationship between solar radiation and leaf area index(LAI) within the canopy of *Phragmites communis* community in Panjin wetland during the growing season in 2005 was discussed. The results indicate that the vertical distribution of solar radiation shows S-curve at the early stage(May) and the late stage(September) of *Phragmites communis* growth, while it is exponential curve at the peak stage(June and July). Solar radiation transmittances in the canopy of different layers reduce with the increase of LAI. The extinction coefficient(k) changes seasonally, and it decreases from the sprouting stage to the mature stage. The minimum value of the extinction coefficient(k) is 0.436.

Key words [Panjin wetland](#) [Phragmites communis](#) [Canopy](#) [Solar radiation](#) [Leaf area index\(LAI\)](#)

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