

研究论文

# 青藏铁路沿线温性草原区芨芨草 (*Achnatherum splendens*) 群落特征

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**摘要** 芨芨草群落是青藏铁路沿线一类重要的温性草原植被类型,对青藏铁路两侧及其四周的水土保持起着非常重要的作用。对青藏铁路西格段海晏县附近的芨芨草原的空间分布特征、物种丰富度和生物量等特征进行了分析。结果显示,研究地区芨芨草群落由芨芨草斑块和针茅斑块镶嵌而成,两类斑块的数量、大小和斑块间大小变化幅度等特征在空间上表现出一定的规律;芨芨草斑块大小在样线上所占的比例比针茅斑块为小,且有随远离铁路而减小的趋势,而物种丰富度则出现相反的变化趋势;芨芨草斑块的盖度和单位面积上地上生物量显著高于针茅斑块。斑块的大小和数量在一定程度上反应了芨芨草群落的退化状况。人为活动往往会加剧芨芨草群落的斑块片段化。针对芨芨草群落的特征和现状,建议加强对这些区域内人为活动的限制力度以减少对芨芨草群落的干扰。

**关键词** [青藏铁路](#); [温性草原](#); [芨芨草群落](#); [铁路影响](#); [特征](#)

**分类号** [Q145](#), [Q151](#), [Q948](#)

## The characteristics of *Achnatherum splendens* community along the Qinghai-Tibet railway

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**Abstract** The *Achnatherum splendens* community is an important vegetation type of warm steppes along the Qinghai-Tibet railway. It plays a very important role in environmental protection in this area. The characteristics of *A. splendens* community near Haiyan County, such as spatial distribution pattern, species richness and biomass, were examined in this paper. The results show that *A. splendens* community in the study region is composed of two types of patches, i.e. *A. splendens* patch and *Stipa* patch. The number and size of the two types of patches showed certain an interesting distributional pattern. Along the gradient away from the railway, the total size of *A. splendens* patch showed a decreasing trend and species richness showed an increasing trend. Coverage of *A. splendens* patches was higher obviously than that of *Stipa* patches. The number and size of patches may reflect the degradation of *A. splendens* community. Human activities can speed up the degradation process of *A. splendens* community. Based on the characteristics and present status of *A. splendens* community, we suggest that some measures be taken to control human activities for *A. splendens* community conservation in the study area.

**Key words** [the Qinghai-Tibet railway](#) \_ [warm steppe](#) \_ [A. splendens community](#) \_ [railway impact](#) \_ [characteristics](#)

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