

研究论文

黄河三角洲芦苇湿地的恢复

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摘要 近年来由于人类活动及自然灾害等多种因素的影响, 黄河三角洲芦苇湿地生态系统的健康受到威胁, 出现不同程度的退化。为进一步研究2002年开始实施的湿地恢复工程, 选择未恢复区、恢复区比较其水、植被、土壤等生态特征, 结合野外调查及实验分析数据, 结果显示至2005年7月恢复区湿地水域面积比例增加, 水质得到明显改善, 植被群落呈正向演替, 土壤达到中、轻度盐化土水平, 水禽种类增加, 生物多样性更加丰富。研究表明, 以恢复湿地水文条件为核心措施的湿地恢复方案具有可行性。研究对于黄河三角洲其他类型湿地的恢复及改善其生态功能具有指导作用。

关键词 [芦苇](#); [湿地](#); [恢复](#); [黄河三角洲](#)

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The restoration of reed (*Phragmites australis*) wetland in the Yellow River Delta

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Abstract Influenced by the human activities and the natural disasters, the reed wetland ecosystem in the Yellow River Delta has been deteriorating in the past. In the paper, the evaluation of the reed wetland was researched with the ecological characteristics of water, vegetation and soil investigated. With the water area increased and the water quality improved, the soil salinity was reduced to the medium and the low level; the vegetation was improved in the positive succession; the biodiversity in the restored wetland was obviously improved and the number of water fowls increased in July of 2005. The results show that water is dominant factor in the restoring process of reed wetland.

The results are as follows:(1)Water is the controlling factor of the wetland, and the key factor of its restoration. The fitting water supply is obviously accelerative to the reform of the water quality, the positive succession of the hydrophyte community, the protection of biodiversity, the optimization of the ecosystem, the strengthening of the ecological function and ability to provide resources. On this foundation, it then reaches the aim of natural restoration.(2)The fluency of drainage is also important besides filling water to the wetland. Through the rational irrigation and drainage, and the fluent water flow can dissolve the salt in soil and improve water quality, and then reach the aim of optimizing the ecological environment.(3)According to the climate and hydrological conditions, the rational management of water resources and strict assistance measures, both can accelerate its restoration.(4)The main aim of wetland restoration is to strengthen the ecological benefit of the wetland, but the social and ecological benefit is also important. It requires implementing the harmonious development of social and ecological benefit.(5)This restoration project is relatively successful, and is an instructional example for the expanding of the ecological restoration in the Yellow River Delta.

Key words [reed](#) _ [wetland](#) _ [ecological](#) _ [restoration](#) _ [Yellow](#) _ [River](#) _ [Delta](#)

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