

黄河三角洲米草入侵对盐沼生态系统的影响与防治技术

田家怡^{1*}, 夏江宝¹, 刘庆¹, 谢文军¹, 钦佩²

1. 滨州学院 山东省黄河三角洲生态环境重点实验室, 山东 滨州 256603

2. 南京大学 江苏 南京, 210093

2005-2008 年, 采用实地勘察、GPS 技术、社会调查相结合的方法, 查清了黄河三角洲地区米草的引种历史、分布面积与扩展动态; 通过野外调查、监测, 分析了米草入侵对盐沼生态系统的影响; 创立了“微地貌水文饰变促进芦苇对米草的生物替代技术”, 实施了米草生态控制工程与示范; 研发了米草综合利用新技术, 获国家发明专利 1 项, 申请专利 6 项; 提出了“生态控制和综合利用”相结合的控制、治理米草的一套具有特色的创新技术。

关键词: 黄河三角洲; 米草入侵; 生态影响; 生态控制技术; 综合利用技术

The influences of *Spartina* Spp. invasions on ecosystem of salt marsh in Yellow River Delta and its controlling techniques

Jia-yi Tian^{1*}, Jiang-bao Xia¹, Qing Liu¹, Wen-jun Xie¹, Pei Qin²

1 Shandong Provincial Key Laboratory of Eco-Environmental Science for Yellow River Delta, Binzhou University, Binzhou, Shandong 256603

2 Nanjing University, Nanjing, Jiangsu 210093

In Yellow River Delta, based on the methods of field investigation, GPS technology and social investigation, the introduction history, distribution area and expanding dynamic of *Spartina* Spp. were all made clear from 2005 to 2008; the influences of *Spartina* Spp. invasions on ecosystem of salt marsh were analysed by using the field survey and monitor methods; the technology of biological substitution about hydro-geomorphological modification promoting to substitute *Phragmites communis* community for *Spartina* Spp. community was found and implemented the control engineering and demonstration of

Spartina Spp.; the research and development of the new comprehensive utilization technique of *Spartina* Spp. was done, winning 1 state invention patent and applying for 6 patents; a set of characteristic innovation technique of controlling *Spartina* Spp. was put forward using a method of combining a biological controlling with comprehensive utilization.

Key words: Yellow River Delta; *Spartina* Spp.; Invasions; Ecological impacts; Ecological controlling technique; Comprehensive utilization technique

基金项目：山东省环境保护重点科技项目“黄河三角洲地区的米草生态调查与防治关键技术研究”(2004-1-3)

*作者简介：田家怡(1951-), 男, 山东省桓台县人, 研究员, 主要从事环境生态学、保护生物学研究