

研究报告

厦门地区秋茄幼苗生长的宜林临界线探讨

陈鹭真^{1,2},杨志伟^{1,2},王文卿^{1,2},林鹏^{1,2}

¹厦门大学生命科学学院, 厦门 361005; ²厦门大学湿地与生态工程研究中心, 厦门 361005

收稿日期 2005-1-18 修回日期 2005-4-25 网络版发布日期 接受日期

摘要

2003年5月在厦门大屿岛白鹭自然保护区西面滩涂上试种秋茄幼苗,研究秋茄的宜林临界线.结果表明, 滩涂高程为黄零0.99 m处, 每个潮水周期的平均淹水时间高达8 h, 幼苗成活率低于50%, 生长缓慢, 不适合用秋茄造林; 在滩涂高程为黄零1.62 m处, 秋茄幼苗成活率达90%, 生物量积累最大, 光合同化作用较高, 生长良好, 为厦门沿海秋茄的最适生长区; 而在高程为黄零1.31 m处, 秋茄幼苗仍能正常生长.故厦门地区秋茄造林的宜林临界线应不低于黄零1.31 m (即厦零4.55 m), 平均每个潮水周期淹水不高于5.6 h.

关键词 [红树林](#) [秋茄](#) [造林](#) [滩面高程](#) [宜林临界线](#)

分类号

Critical tidal level for planting *Kandelia candel* seedlings in Xiamen

CHEN Luzhen^{1,2}, YANG Zhiwei^{1,2}, WANG Wenqin^{1,2}, LIN Peng^{1,2}

¹School of Life Sciences, Xiamen University, Xiamen 361005, China; ²Research Centre for Wetlands and Ecological Engineering, Xiamen University, Xiamen 361005, China

Abstract

Plantable tidal flat is one of the most important factors affecting the survival rate of mangroves seedlings in forestation. In this paper, an experiment was conducted in the tidal zones of Umbrette Natural Reserve in the Dayu Island of Xiamen in May 2003 to investigate the critical tidal level for *Kandelia candel* forestation. The results showed that the tidal level of 0.99 m above the zero tidal level of the Huang Ocean was not suitable for planting *K. candel* seedlings, because the waterlogging time at this tidal level was longer than 8 h per-tide-cycle, and the survival rate was lower than 50%. At 1.62 m above the zero tidal level of Huang Ocean, *K. candel* seedlings had the best growth and the highest photosynthetic assimilation, with a survival rate of 90%. At 1.31 m above the zero tidal level of Huang Ocean, *K. candel* seedlings could still grow well. It could be concluded that the tidal level of 1.62 m was optimal for planting *K. candel* seedlings, and the critical tidal level of *K. candel* seedlings in the coastal areas of Xiamen was not lower than 1.31 m above the zero tidal level of Huang Ocean, where the waterlogging time was not longer than 5.6 h per-tide-cycle.

Key words

[Mangroves](#) [Kandelia candel](#) [Forestation](#) [Tidal flat](#) [Critical tidal level for planting](#)

DOI:

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(517KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“红树林”的相关文章](#)
- ▶ [本文作者相关文章](#)

- [陈鹭真](#)
- [杨志伟](#)
- [王文卿](#)
- [林鹏](#)

