

研究报告

## 长白山四种赤杨丛枝菌根真菌侵染多样性的巢式PCR-RFLP分析

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**摘要** 采集中国吉林长白山不同海拔的4种赤杨根须样本, 利用巢式PCR-RFLP方法检测丛枝菌根真菌(AMF)对样品的侵染情况, PCR结果经限制性内切酶分析. 结果表明, 赤杨根内AMF存在丰富的基因多样性. AMF的侵染有从宿主混乱性向宿主专一性发展的趋势. 东北赤杨AMF的宿主专一性水平最强, 球囊霉属已成为东北赤杨的优势侵染类群; 其余3种赤杨的AMF则出现宿主混乱现象. 宿主因素比海拔因素对AMF侵染有更重要的影响.

**关键词** [赤杨](#) [巢式PCR-RFLP](#) [丛枝菌根真菌\(AMF\)](#) [多样性](#) [长白山](#)

分类号

## Genetic diversity of arbuscular mycorrhizal fungi associated with four *Alnus* species in Changbai Mountains: A nested PCR-RFLP analysis

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### Abstract

In this paper, the colonization of arbuscular mycorrhizal fungi (AMF) on the root samples of 4 *Alnus* species in Changbai Mountains was investigated by using nested PCR-RFLP technique, and the PCR results were tested by restriction endonuclease analysis method. The results revealed that the uncultured AMF had a high genetic diversity, and the colonization had a trend from promiscuity to specialization. The AMF from *Alnus mandshuica* showed the greatest specialization to the host, and *Glomus* was the dominant colonizer of *A. mandshuica*. The AMF from *A. sibirica* var. *hirsuta*, *A. sibirica*, and *A. tinctoria* showed promiscuity, and host had more significant effects on the colonization of AMF than altitude.

**Key words** [Alnus](#) [Nested PCR-RFLP](#) [arbuscular mycorrhizal fungi](#) [Diversity](#) [Changbai Mountains](#)

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