落叶松人工林林龄梯度施肥样地

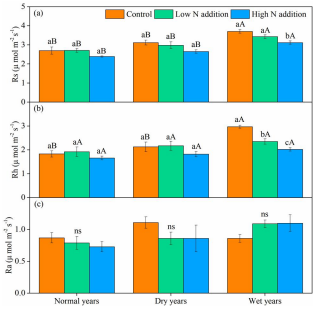
朴世龙课题组

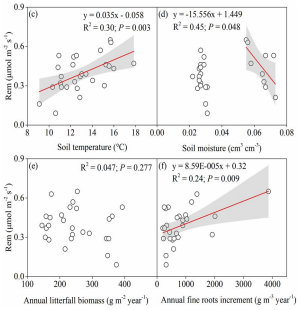
基本情况

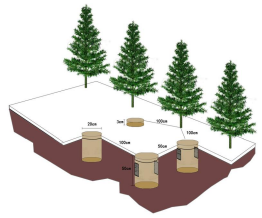
- 研究对象：不同林龄落叶松人工林
- 样地概况：选择幼龄林、中龄林和成熟林建立3个样地，每个样地设置3个氮添加处理：对照（无氮添加）、低氮添加处理（20 kgN ha^{-1} $year^{-1}$）以及高氮添加处理（50 kgN ha^{-1} $year^{-1}$），每个处理3个20 m × 20 m重复样方
- 研究内容：氮添加对落叶松人工林生态系统的影响及机制
- 设置时间：2009年

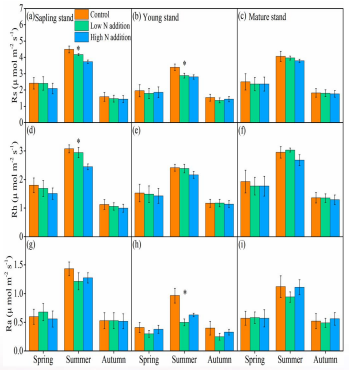
主要成果

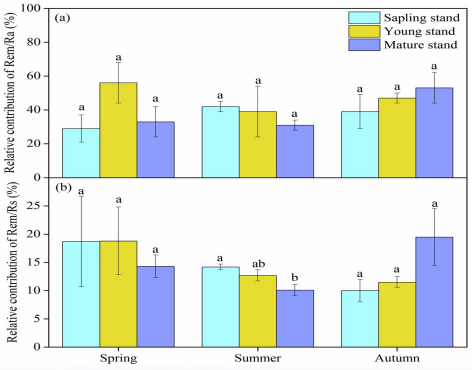
- 揭示土壤呼吸及其组分对气候变化的响应











近3年已发表代表性论文

- Yan T*, Song HH, Zeng H. 2020. Spring phenophases of larch are more sensitive to spring warming than to year-round warming: Results of a seasonally asymmetric warming experiment. Forest Ecology and Management, 474, https://doi.org/10.1016/j.foreco.2020.118368.
- Song HH, Yan T*, Wang JS, Sun ZZ. 2020. Precipitation variability drives the reduction of total soil respiration and heterotrophic respiration in response to nitrogen addition in a temperate forest plantation. Biology and Fertility of Soils, 56, 273-279.
- Yan T, Qu TT, Song HH, Sun ZZ, Zeng H*, Peng SS*. 2019. Ectomycorrhizal fungi respiration quantification and drivers in three differently aged larch plantations. Agricultural and Forest Meteorology, 265, 245-251.
- Yan T, Song HH, Wang ZQ, Teramoto M, Wang JS, Liang NS, Ma C, Sun ZZ, Xi Y, Li LL, Peng SS*. 2019. Temperature sensitivity of soil respiration across multiple time scales in a temperate plantation forest. Science of the Total Environment, 688, 479-485.
- Yan T, Qu TT, Sun ZZ, ... Zeng H, Piao SL*. 2018. Negative effect of nitrogen addition on soil respiration dependent on stand age: Evidence from a 7-year field study of larch plantations in northern China. Agricultural and Forest Meteorology, 262, 24-33.