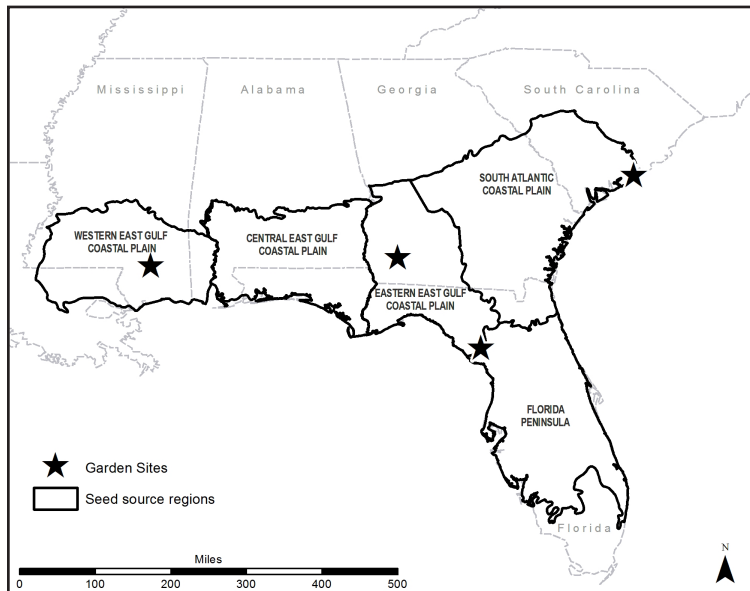


Seed Sourcing for Longleaf Pine Ground Cover Restoration

Land managers restoring native ground cover in the longleaf pine ecosystem are faced with the challenge of selecting and obtaining appropriate seed sources for their site. Currently, the commercial supply of native ground cover seed collected from the longleaf pine ecosystem is limited; however, information to guide seed sourcing decisions, including whether non-local seed sources are appropriate for restoration, is often unavailable. Our goal was to test the performance of seeds sourced from multiple regions within the historic range of longleaf pine as well as from a commercial source to the north of this range. We assessed performance measures including plant growth, timing of flowering, water stress, and survival using six species commonly planted in ground cover restoration (four grasses, a legume, and an aster).



Our results varied by species, but supported the idea that plants from local seed sources (within approximately 200 miles) often have higher rates of growth and survival than plants from more distant sources. Additionally, plants from the northern seed source flowered several weeks earlier than those from the longleaf pine ecosystem, potentially disrupting important plant-pollinator relationships. For most species, similarities in plant performance among seed sources helped identify geographic regions within which seeds can be moved successfully. Our study highlights the need for increased production of native seed originating from the longleaf pine ecosystem.

MORE INFORMATION

Giенcke, L.M., R.C. Denhof, L.K. Kirkman, O.S. Stuber, and S.T. Brantley. 2018. Seed sourcing for longleaf pine ground cover restoration: using plant performance to assess seed transfer zones and home-site advantage. *Restoration Ecology*.

CONTACT

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KEY POINTS

Most commercial sources of native seed are sourced from outside the historic range of longleaf pine, and may not be optimal for restoration projects in the region

Selecting appropriate seed sources for a specific restoration site requires knowledge about the variability of plant performance across a species' range

Seed can likely be moved relatively long west-to-east distances (several hundred miles) from Mississippi through South Carolina, including northern Florida, because of similarities in climate and topography; conversely, moving seeds from farther north or west may be more likely to adversely impact plant performance