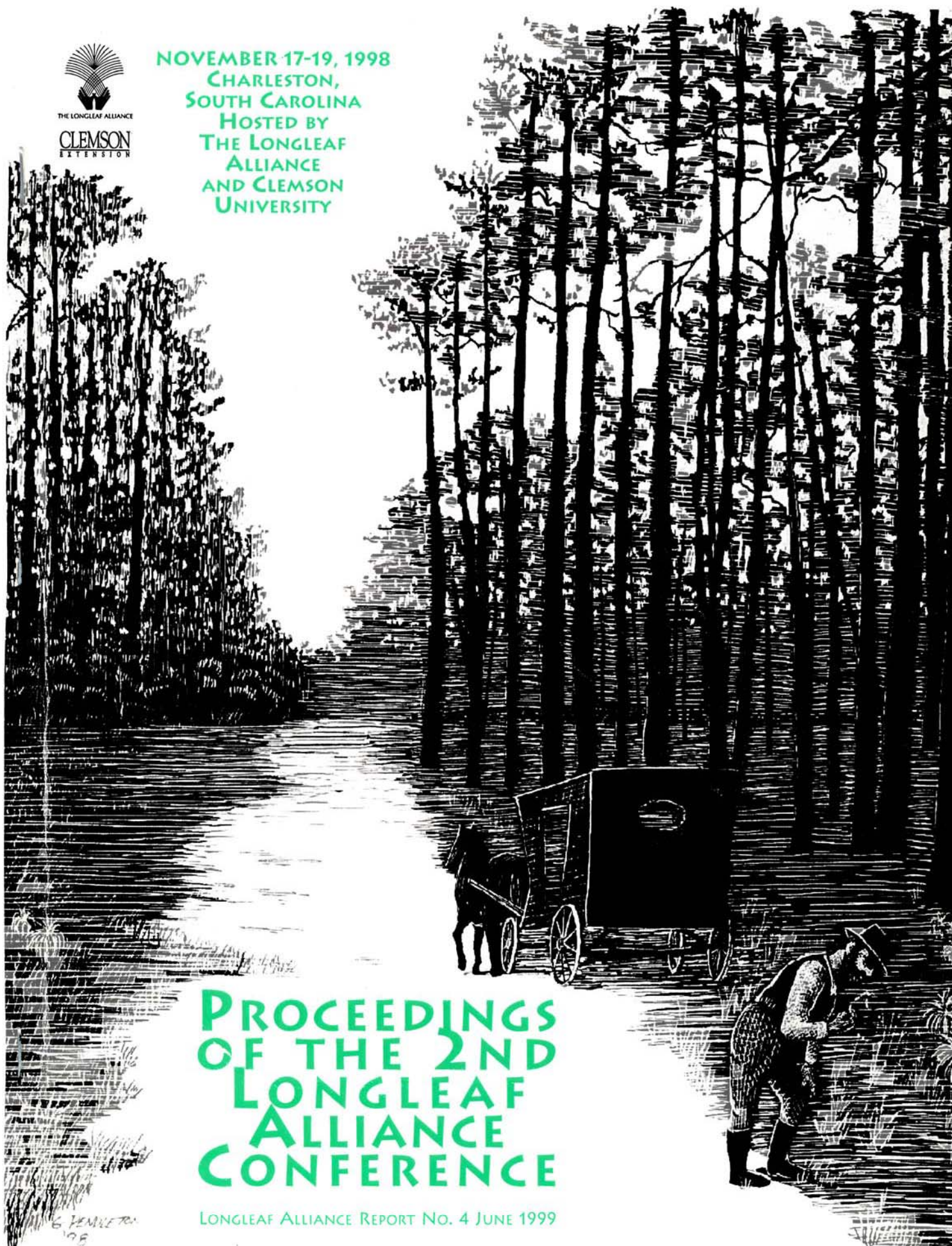




THE LONGLEAF ALLIANCE

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Wiregrass (*Aristida stricta* Michx.) Establishment with Restoration Implications

Maureen Mulligan (Joseph W. Jones Ecological Research Center, Route 2 Box 2324, Newton, GA 31770)

L. Katherine Kirkman (Joseph W. Jones Ecological Research Center, Route 2 Box 2324, Newton, GA 31770)

Robert J. Mitchell (Joseph W. Jones Ecological Research Center, Route 2 Box 2324, Newton, GA 31770)

ABSTRACT: Restoration of the longleaf pine ecosystems of the Southeastern United States has focused interest on the regeneration and establishment of wiregrass due to its structural dominance and function as a high quality fuel source. This study examines season of burn and age of seedling effects on seedling survivorship, dispersal distance from planted adults, canopy cover effects on establishment and reproduction, and competitive effects on seedling establishment of various ages. In 1994, wiregrass plugs were outplanted in two densities (5 plugs/m² and 0.5 plugs/m²) and three canopy thinning treatments (1/3 basal area, 2/3 basal area, and controls) were implemented in a 16- 19 year old longleaf plantation in Southwestern Georgia. Due to the intense site preparation and the density of pines employed in plantation setup, virtually no understory vegetation including no wiregrass was present. The site was burned in June 1995, which promoted seed production of the planted wiregrass. Initial sampling indicates that the 2/3 thinning treatment results in larger plants that in turn produce a greater number of seedling recruits. No seedling recruitment occurred in control plots. Dispersal distances of up to 594 cm were recorded in the 2/3 thinning treatment plots. Analysis of competitive effects on wiregrass establishment are ongoing. Findings from this study should provide a better understanding of the biotic and abiotic factors controlling propagated seedling establishment with direct restoration implications.