

AN OLD-GROWTH CYPRESS STAND IN OKEFENOKEE SWAMP

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ABSTRACT - A remnant stand of old-growth pond cypress in Okefenokee Swamp, Georgia, was studied. The rooting media is a shallow-flooded, strongly acid, deep peat soil. Cypress is the dominant feature of the old-growth community towering well above the subcanopy of broad-leaved evergreen trees. Although *Taxodium* has the greatest basal area for trees, its importance value in the tree class is superceded by *Gordonia* >> *Taxodium* >> *Persea* ~ *Magnolia* > *Nyssa*. However, *Taxodium* dominates overall community structure in basal area (35.18 m²/ha for *Taxodium*; 60.06 m²/ha for community) and importance value (20.6%). Tree diversity (H), based on six species, for the community is 1.80 with a maximum possible diversity of 2.58. *Taxodium* replacement is lacking indicating its eventual demise as the community dominant. Replacement predominantly by *Gordonia* and secondarily by *Magnolia* and *Nyssa* appears to be the successional trend for this old-growth cypress community.

INTRODUCTION

Few areas exist in the Southeast where man's activities have not disturbed natural areas. Even the once pristine Okefenokee Swamp has been drastically altered during the past century through extensive logging (Hopkins, 1947; Izlar, 1984b) and canal digging (Hopkins, 1947). Natural perturbations by fire have often been complicated by man's intervention (Cypert, 1961; Izlar, 1984a). Nonetheless, isolated areas do exist where perturbations by man have had little impact on natural communities. This paper describes such a community, a unique remnant stand of old-growth pond cypress (*Taxodium ascendens*) occurring in a shallow peaty area of the Okefenokee. Apparently, the community has not been sufficiently disturbed in the last few centuries to alter its natural succession to a bay swamp dominated by broadleaf evergreen hardwoods. This bay swamp represents a variation of the bayhead community that Monk (1966) considered to be climax on seasonally flooded areas.

Description of the Study Area

The stand lies on the northeastern perimeter of Grand Prairie in the southeastern section of the Okefenokee Swamp, Georgia. The stand appears to be an undisturbed remnant of a more extensive *Taxodium*-dominated swamp forest in the eastern portion of the Okefenokee. Duever (1979), who treated the

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