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SPATIAL VARIATION IN OUTCROSSING AMONG ISOLATED CLONES OF *SPARTINA ALTERNIFLORA* AT A RESTORED MARSH

We investigated the breeding system of smooth cordgrass (*Spartina alterniflora*) at a restored marsh in southwestern Louisiana. *S. alterniflora* reproduces clonally as well as sexually, although little is currently known of the relative rates of self-fertilization versus outcrossing under natural conditions. The maintenance of outcrossing may be a particularly important property of restored populations, since recolonization is mostly initiated from floating mats of vegetation rather than seeds. Therefore, colonizing individuals may carry a considerable mutational load that could result in severe inbreeding depression in the absence of neighboring clones with which to exchange gametes. We measured the frequency of outcrossing among *S. alterniflora* seedlings growing between closely-spaced (<10m) clones at a 2-yr old restored site in the Sabine National Wildlife Refuge, and compared these frequencies to those of more isolated seedlings growing along the outer margins of these same clones where much of the remaining substrate was uncolonized. We hypothesized a heightened frequency of outcrossing between neighboring clones. We used amplified fragment length polymorphisms (AFLPs) to construct genetic profiles of seedlings, as well as their putative parents, and treated the presence of genetic markers in the offspring, apparent in both of the putative parents, as reliable evidence of outcrossing.