HYBRIDIZATION AND CONTROL OF NATIVE-NON NATIVE SPARTINA COMPLEX IN SAN FRANCISCO BAY

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This study investigated a native, non-native, and hybrid cordgrass (*Spartina)* complex that has invaded a marsh in San Francisco Bay and examined potential methods of control. *Spartina alterniflora*, smooth cordgrass, is an introduced species that grows in the marshes of the Bay, along with the native California cordgrass, *S. foliosa*. Where the two species occur together, hybridization has taken place. The study found the site to be dominated by genetically heterogeneous hybrid plants with variable annual morphological and reproductive vigor. In a field study, the herbicide glyphosate was an effective form of control in the late summer-fall, reducing percent cover by as much as 95%. A fall nursery study confirmed efficacy of glyphosate, while in a winter study the herbicide fluridone (SRP) was an effective control agent. Winter treatment of fluridone reduced plant biomass by as much as 83%.

I certify that the Abstract is a correct representation of the content of this thesis.

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(Chair, Thesis Committee (Date)

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