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Effect of Salinity on Common Reed (*Phragmites australis*) in a Restored Salt Marsh in Rhode Island

Tidal wetlands have undergone extensive degradation throughout the years because of interference with tidal flow from construction, dredging, and invasion of non-native plants such *Phragmites australis*. In 1956, a 4-lane highway was constructed in Galilee, Rhode Island, USA, crossing the 60-hectare salt marsh known as the Galilee Bird Sanctuary. Construction of this highway greatly restricted tidal flow to the southern portion of the marsh. Subsequently, *P. australis* became the dominant species, and existed in three distinct stands (short, medium and tall) depending on the degree of freshwater input. In an effort to restore tidal water, eliminate existing *P. australis*, and restore native salt marsh species, full tidal flow was restored in 1997 with the construction of two sets of culverts and creation of a tidal channel network. During the summers of 1998 and 1999, we monitored the effect of the newly introduced salt water on the three distinct stands of *P. australis*. Plants in all three stands declined substantially. Each year following the restoration to the present, we revisited the marsh to evaluate conditions and to compare further changes that have occurred since the restoration was fully completed. The restored full tidal flow and reduction in the growth and number of *P. australis*, in all three areas has resulted in the recovery of native salt marsh habitat that existed prior to road construction.