



# The Role of the *Spartina* Microbiome in Restoration and Resilience to Environmental Change



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# Rationale and Objectives

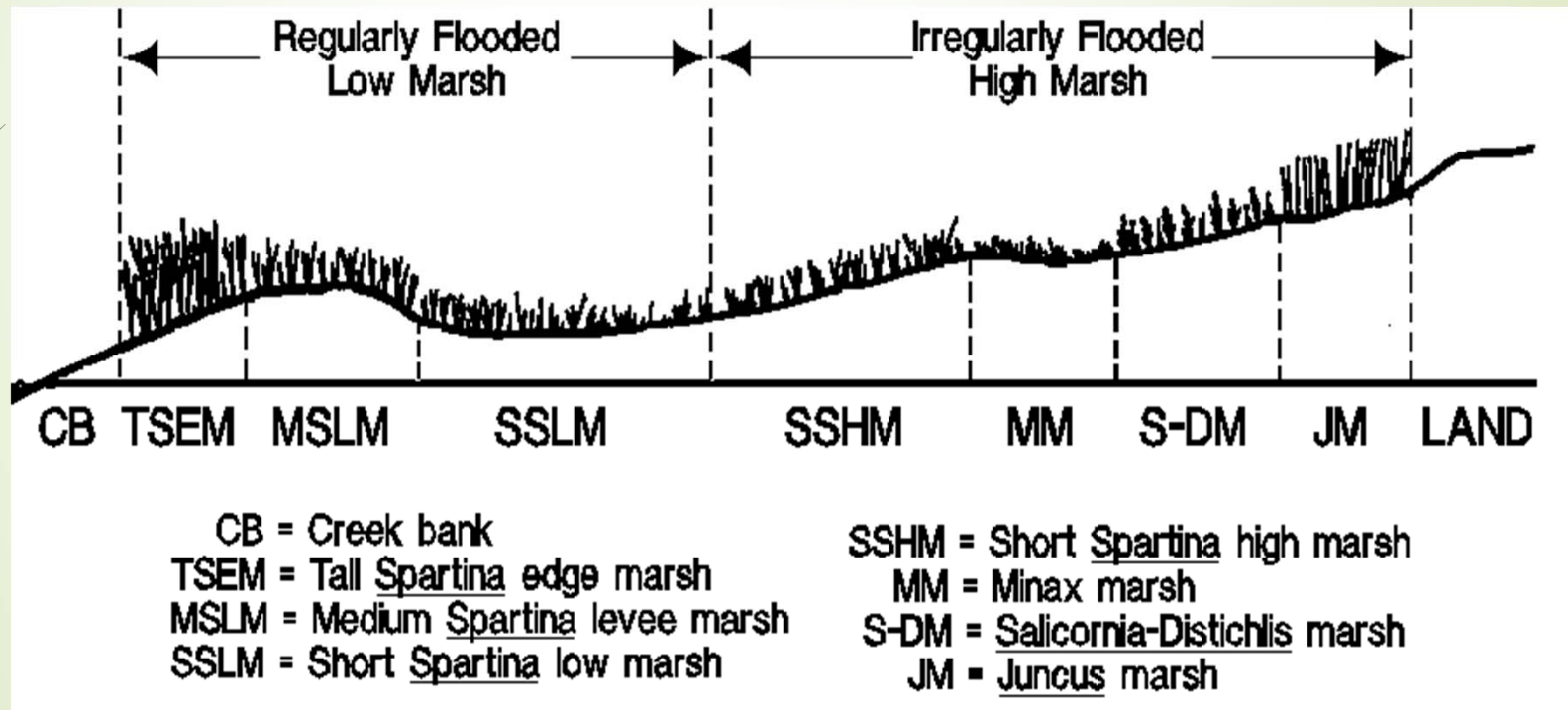
## ► Rationale:

- Critical knowledge gap is a predictive understanding of plant-microbe interactions and their role in ecosystem function
- Microbiome of environmentally-relevant plants is virtually unknown

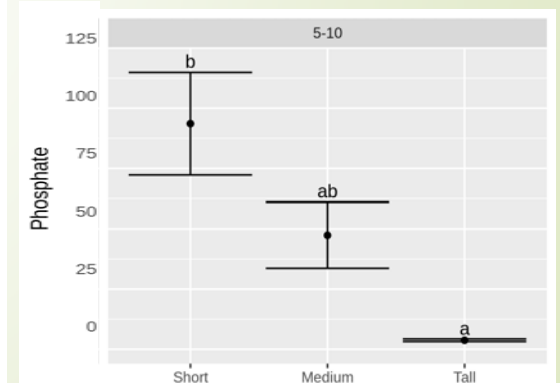
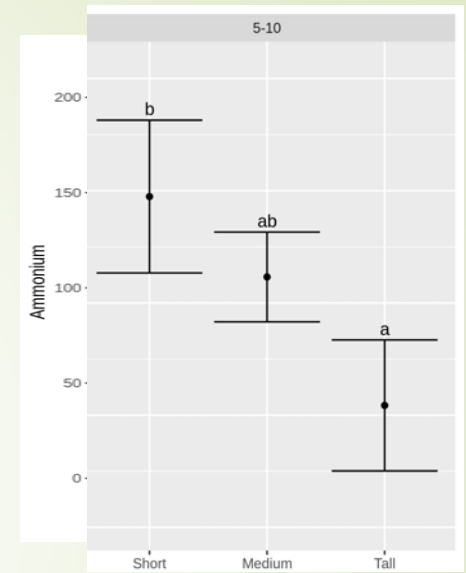
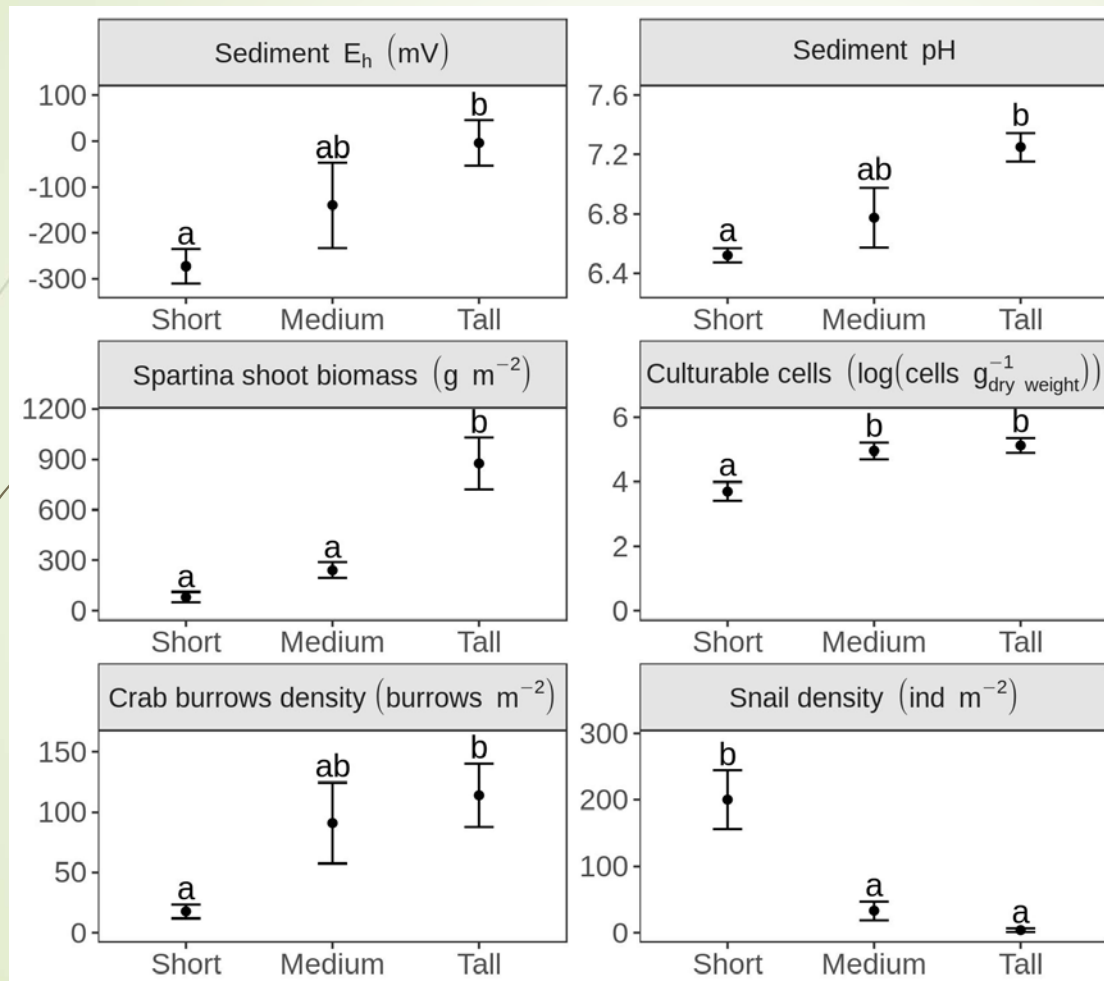
## ► Objectives:

- Investigate role of microbiome (root zone) in supporting the health and ecosystem function of *Spartina*.
- Provide a mechanistic understanding of role of phytobiome in the resilience of coastal marshes during habitat restoration and in response to environmental change (drought, dieback, warming, sea level rise).

## Tall to short *Spartina* gradient

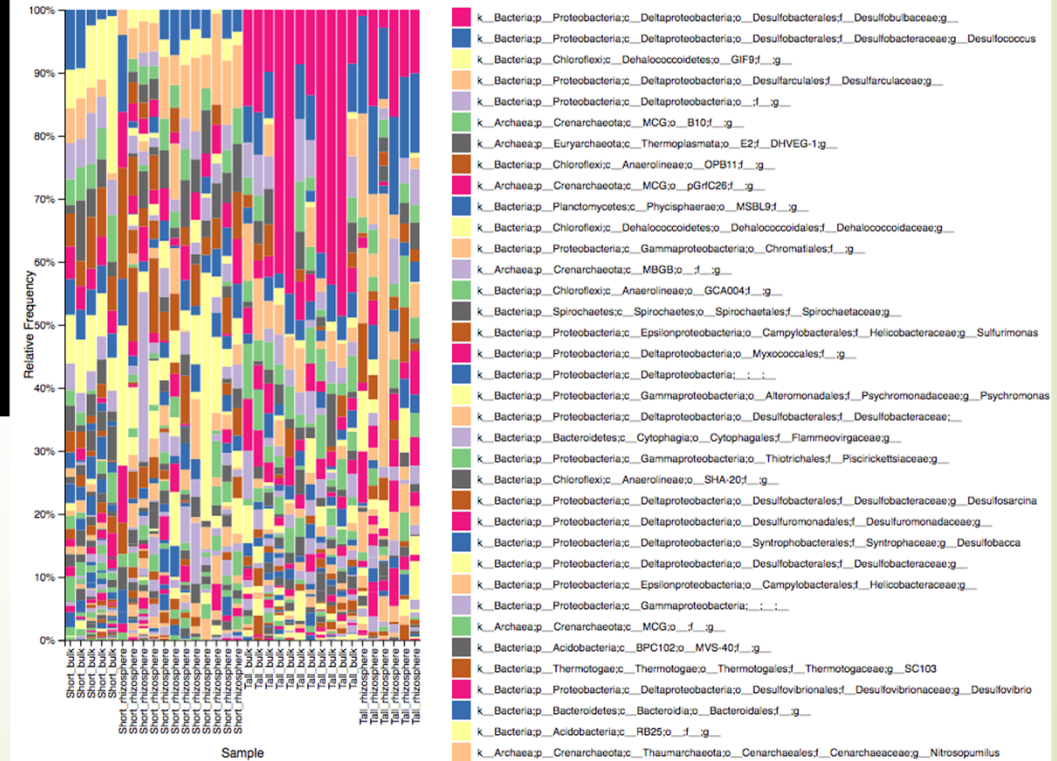
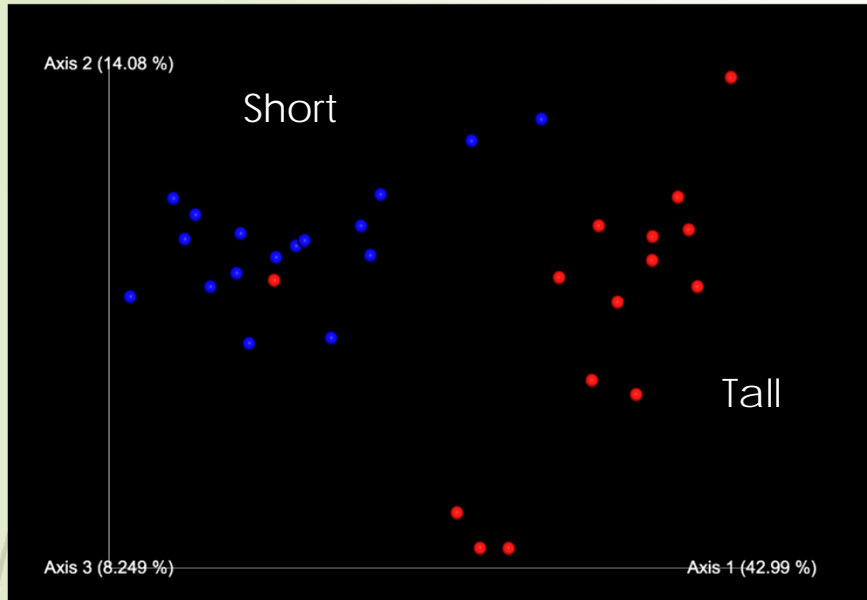


# Results – Sapelo – July, 2018





# Microbiome diversity and composition



Partner with GCE Schoolyard to train middle and high school teachers



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