

Salt Marsh Seminar: Trophic Interactions

Week 5

Discussion Questions:

1. What are some bottom-up and top-down forces that could impact the distribution of salt marsh plant species? Which of those forces do you think has the strongest influence and is it the same for all plant species?
2. Massive marsh dieback in the south appears to be influenced by both bottom-up and top-down forces. Design an experiment to test the relative strength of these factors on *Spartina alterniflora* growth.
3. What actions could be taken to slow marsh dieback in the south?
4. If you were a manager in Louisiana, would you focus on controlling Nutria populations through Alligator predation or with hunting and trapping? Or would you propose an entirely novel approach?
5. In light of these examples of the drastic effects of top-down control in the salt marsh ecosystem, do we discard bottom-up control entirely? Are there spatial or temporal variables that would promote bottom-up versus top-down control?
6. How might anthropogenic influences affect the strength of bottom-up versus top-down control for salt marsh plants, grazers and predators?