Virginia Coast Reserve

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LTER SCIENCE COUNCIL MEETING 2018

MADISON, WI

NATIONAL SCIENCE FOUNDATION

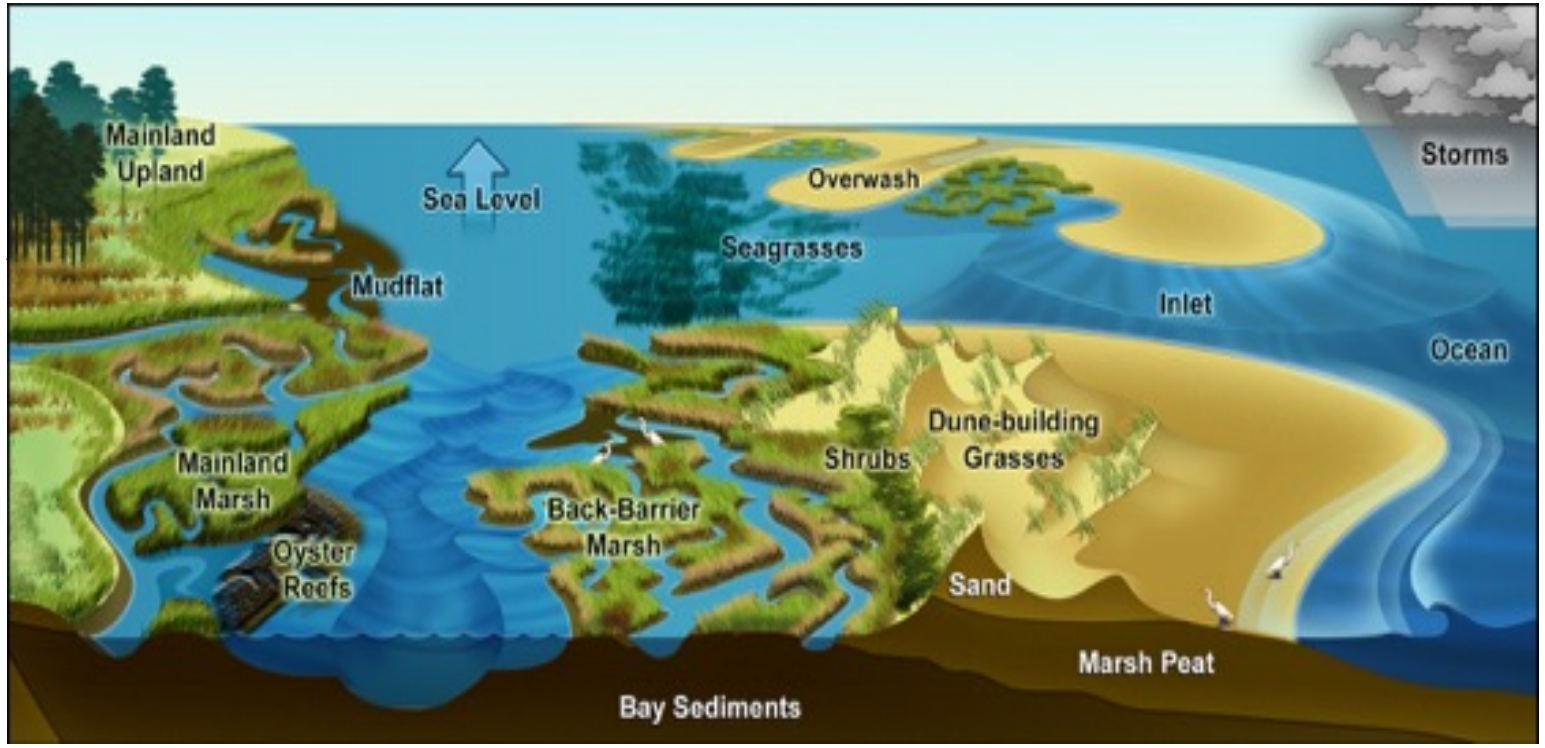
LTER NETWORK

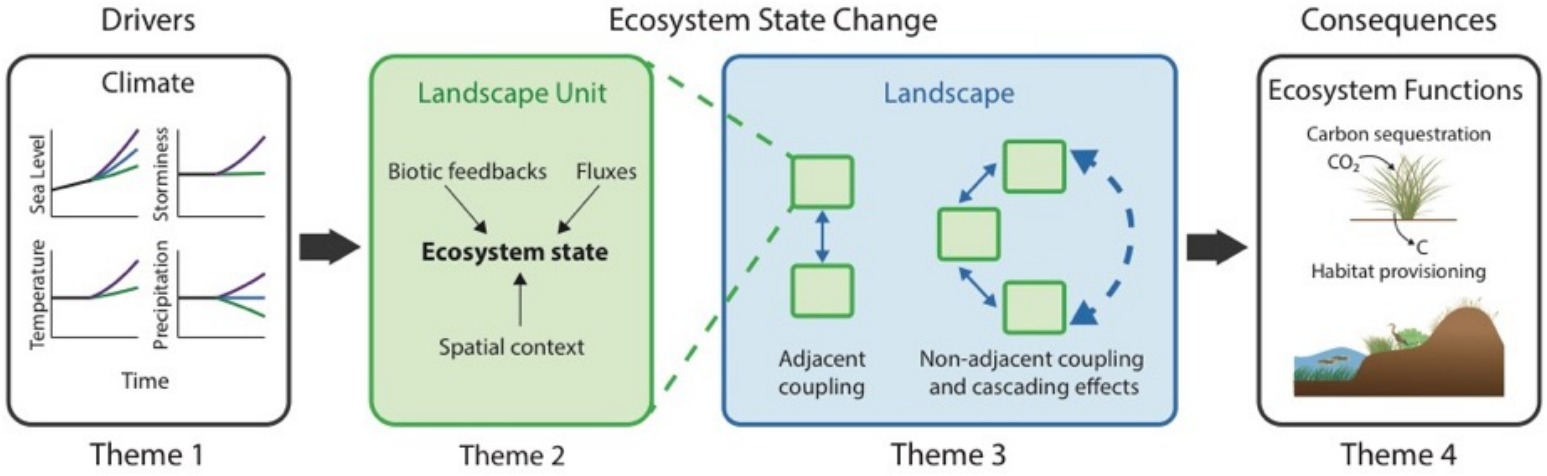
LONG TERM ECOLOGICAL RESEARCH

Site News

- VCR VII Conceptual Framework – connectivity and coupled state change dynamics
- From shifting mosaic to directional change:
  - 5% marsh loss
  - 29% island loss; 40% shrub expansion
  - 25 km^2 seagrass gain
- Marine heat waves and seagrass resilience

Zinnert et al. 2016, Deaton et al. 2017





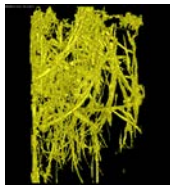
VCR Organic Matter

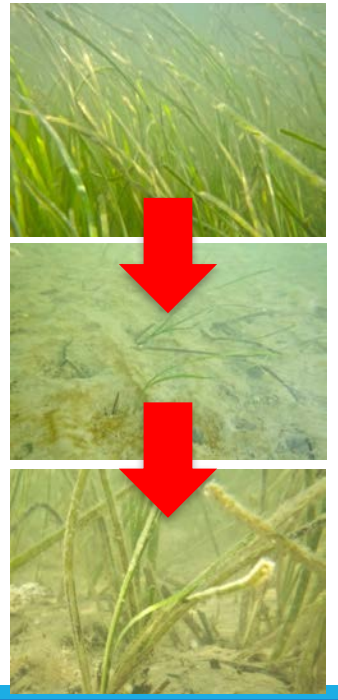
Accumulation

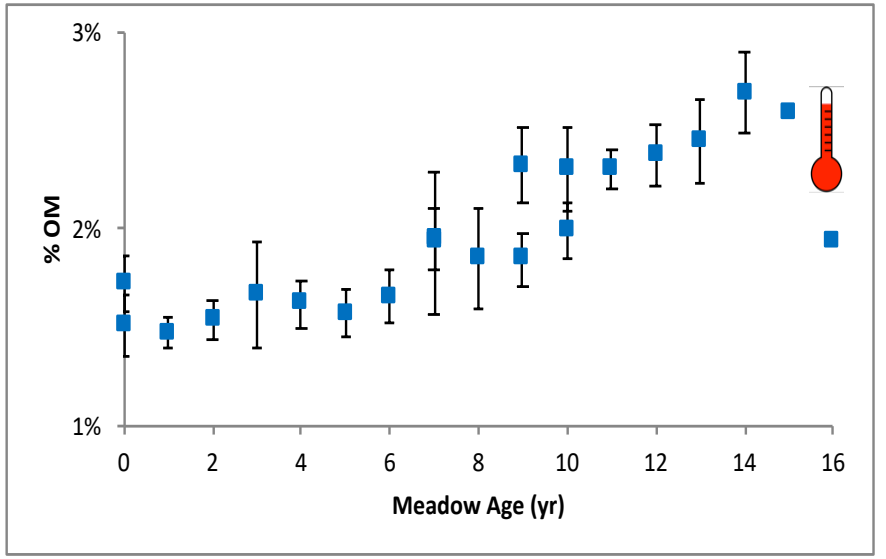
Intertidal marshes are keeping pace with sea-level rise. What are the contributions of marsh belowground biomass?

CT Scan

Subtidal seagrass state change doubles OM burial. How will this be affected by marine heat waves?



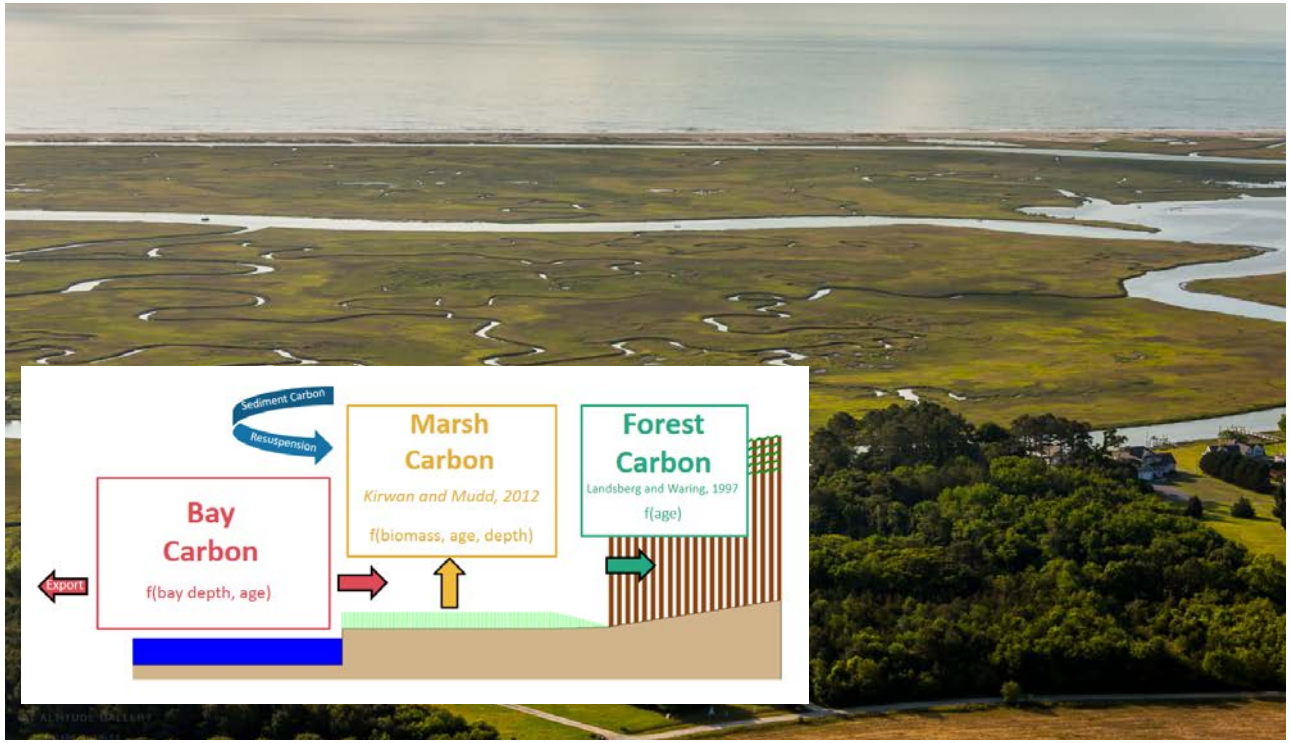


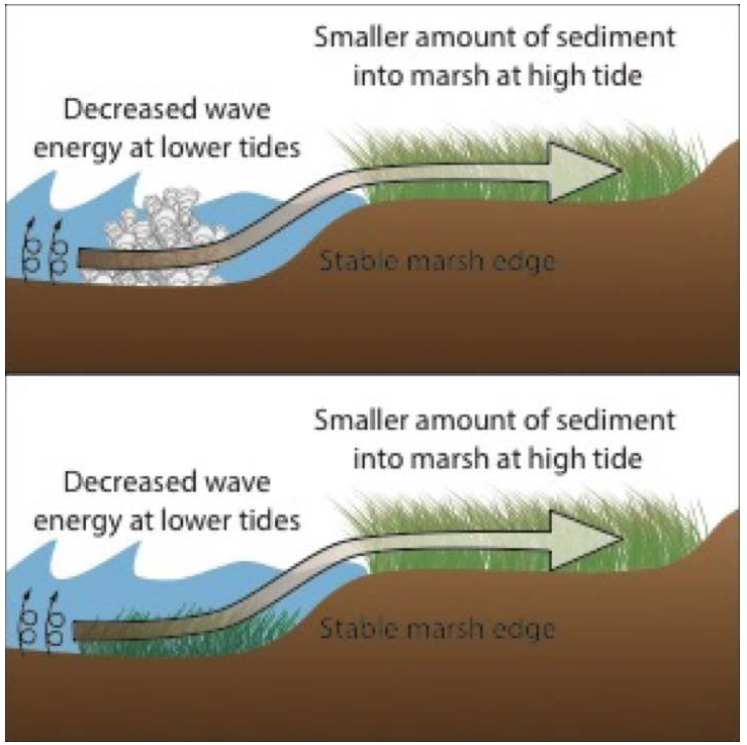


VCR Organic Matter

Connectivity and Spatial Resilience

Is loss in one part of the landscape compensated for by gain in another?





Long-term seagrass and oyster reef experiments test habitat adjacency