Dr. Christine Hladik

Assistant Professor of Geography
chladik@georgiasouthern.edu

Geospatial analyses of coastal habitats

- Create accurate maps of coastal habitats using remote sensing data

- Develop techniques to monitor wetlands

- Predict climate change effects

Research Theme 1: Elevation

- Effects of elevation on tidal marshes and forests
  - Marsh dieback
  - Thin layer placement (TLP)
  - Habitat change
- Accuracy of LIDAR
  - Correct DEMs in tidal marshes and tidal fresh forests
  - SLR modeling inputs
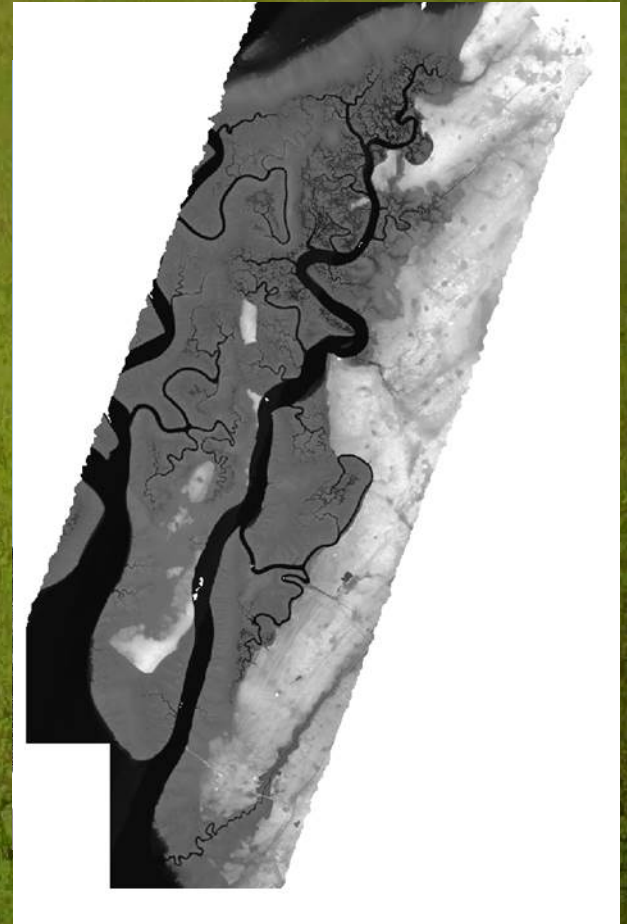
An example of a LIDAR-derived DEM for Sapelo Island, GA. These data are used to map tidal marsh elevations and plant distributions.
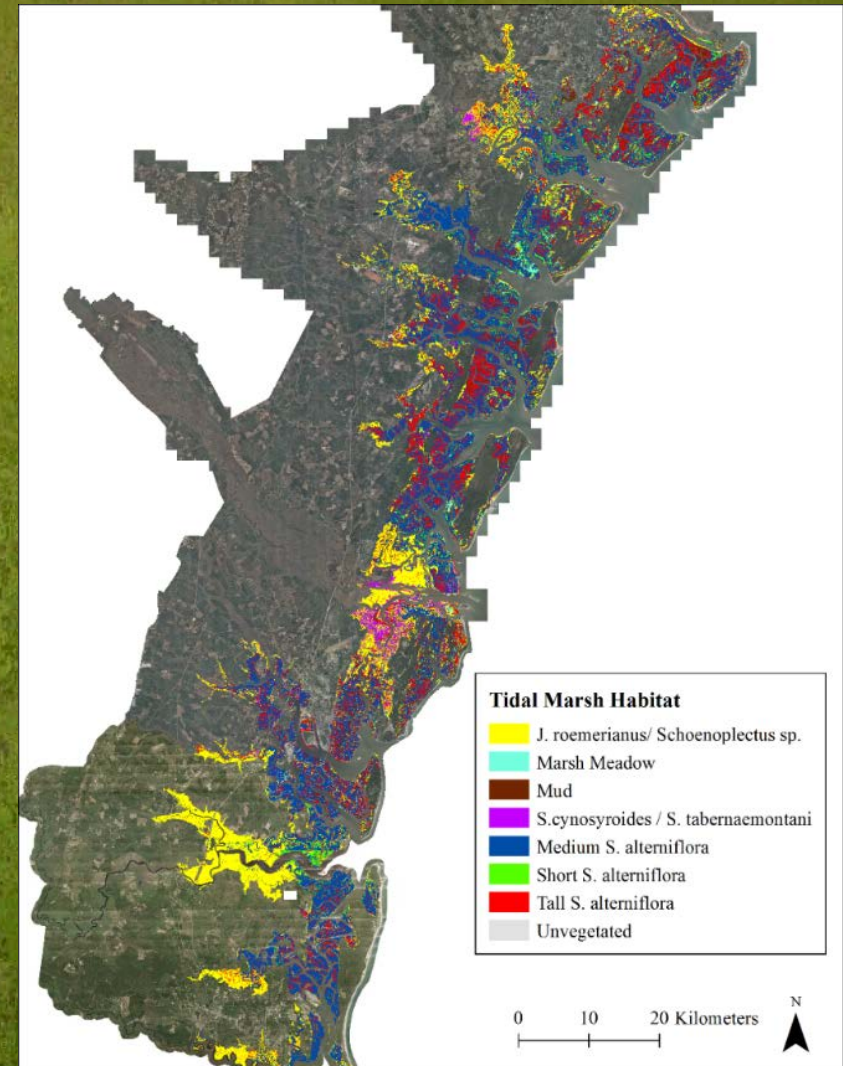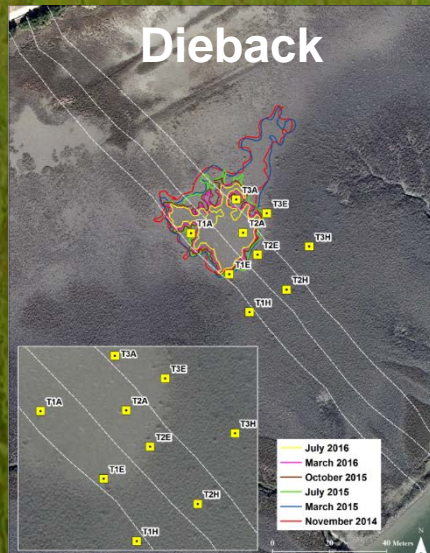
Dieback near Savannah, GA   Marsh-mud-bucket walking

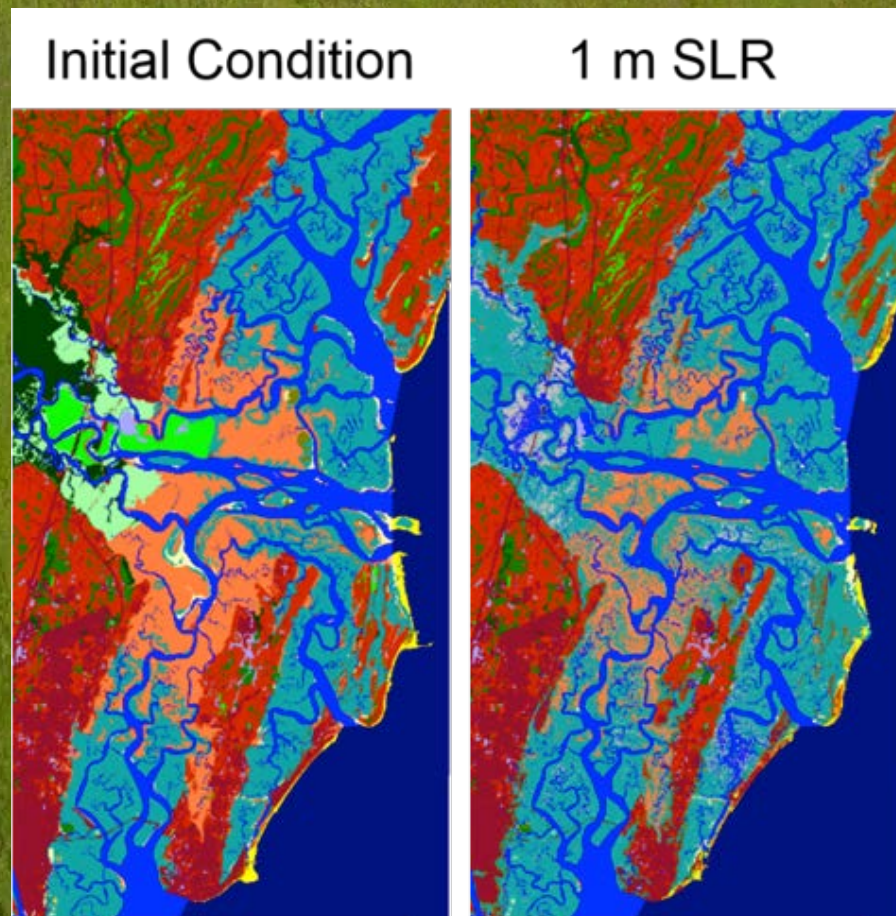# Research Theme 2: Classification and Mapping

Map coastal habitats

– Tidal marsh and tidal forest classification

– Salt marsh dieback, thin layer placement (TLP) habitat change

Dieback

July 2016
March 2016
October 2015
July 2015
March 2015
November 2014

TLP

Jekyll Island

Control Site
Placement Site

Tidal Marsh Habitat

- J. roemerianus/ Schoenoplectus sp.
- Marsh Meadow
- Mud
- S.cynosyroides / S. tabernaemontani
- Medium S. alterniflora
- Short S. alterniflora
- Tall S. alterniflora
- Unvegetated

0   10   20 Kilometers

Research Theme 3: Predictive Tools

Predicting SLR impacts and habitat shifts
– Accurate habitat, elevation, and accretion data

Thanks!