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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.
Research Theme 2: Classification and Mapping

Map coastal habitats
- Tidal marsh and tidal forest classification
- Salt marsh dieback, thin layer placement (TLP) habitat change
Research Theme 3: Predictive Tools

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