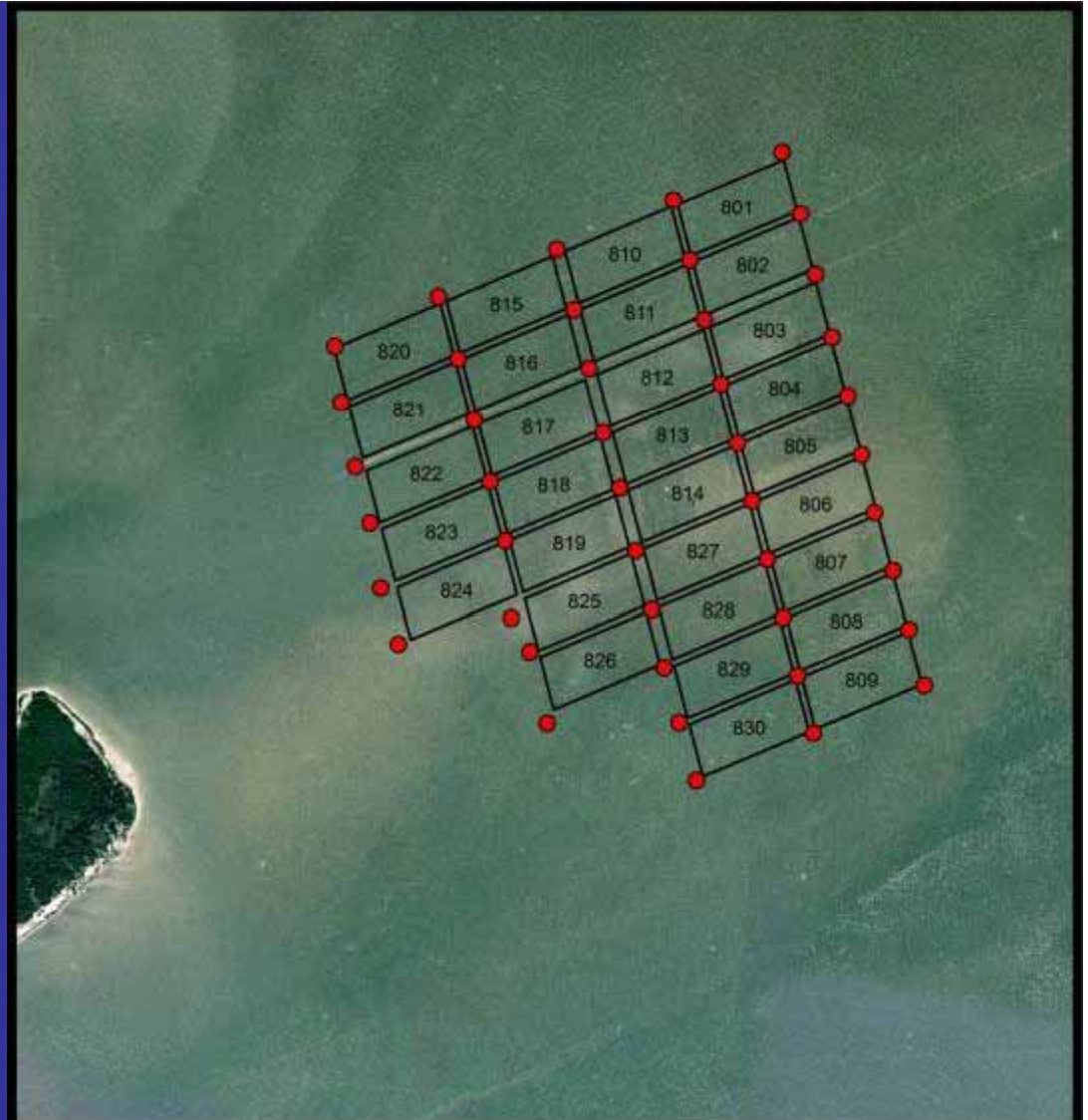


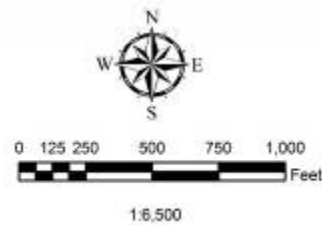
# Soil Landscape Assessment at Dog Island Lease Area, Cedar Key



# Soil Sample Locations



Dog Island Lease Area Map Series: Soil Sample Locations



This map depicts the locations of soils that were sampled for characterization. Samples were analyzed by the Soil and Water Science Department's Environmental Pedology Laboratory at the University of Florida. All samples were analyzed for organic matter, particle size distribution, bulk density, and sand fractionation. The basemap is a 2001 true-color aerial photograph mosaic provided by the Suwannee River Water Management District.

# Soil Elevation (Bathymetry)

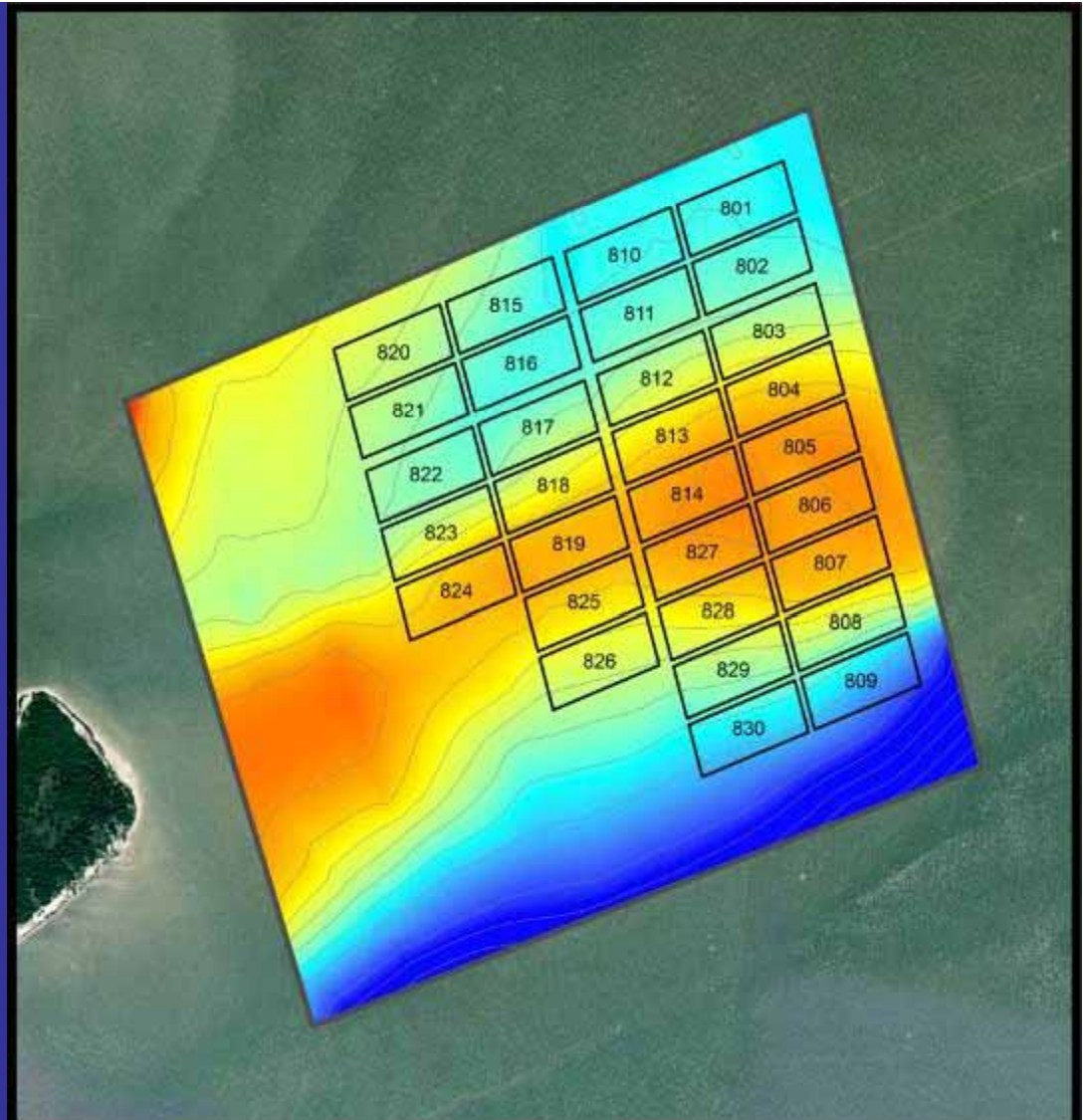
High Elevation



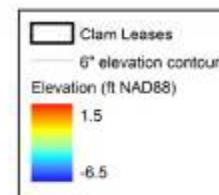
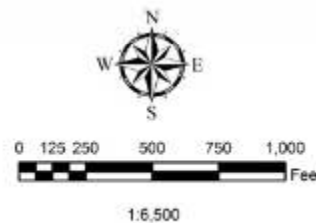
1.5 ft NAD88

-6.5 NAD88

Low Elevation



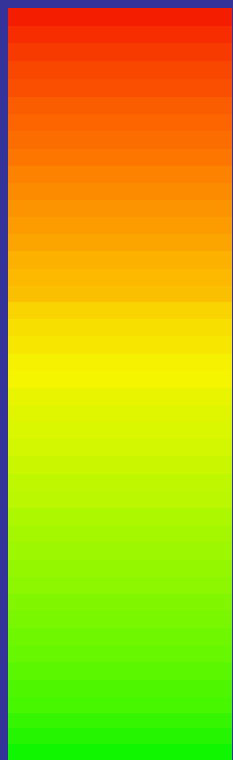
Dog Island Lease Area Map Series: Bathymetry



Bathymetric data were collected throughout the lease area, converted to NAD88 by correcting for tidal fluctuations via the NOAA tidal gauge in Cedar Key, and spatially modeled using the ArcGIS. The basemap is a 2001 true-color aerial photograph mosaic provided by the Suwannee River Water Management District.

# Soil Organic Matter

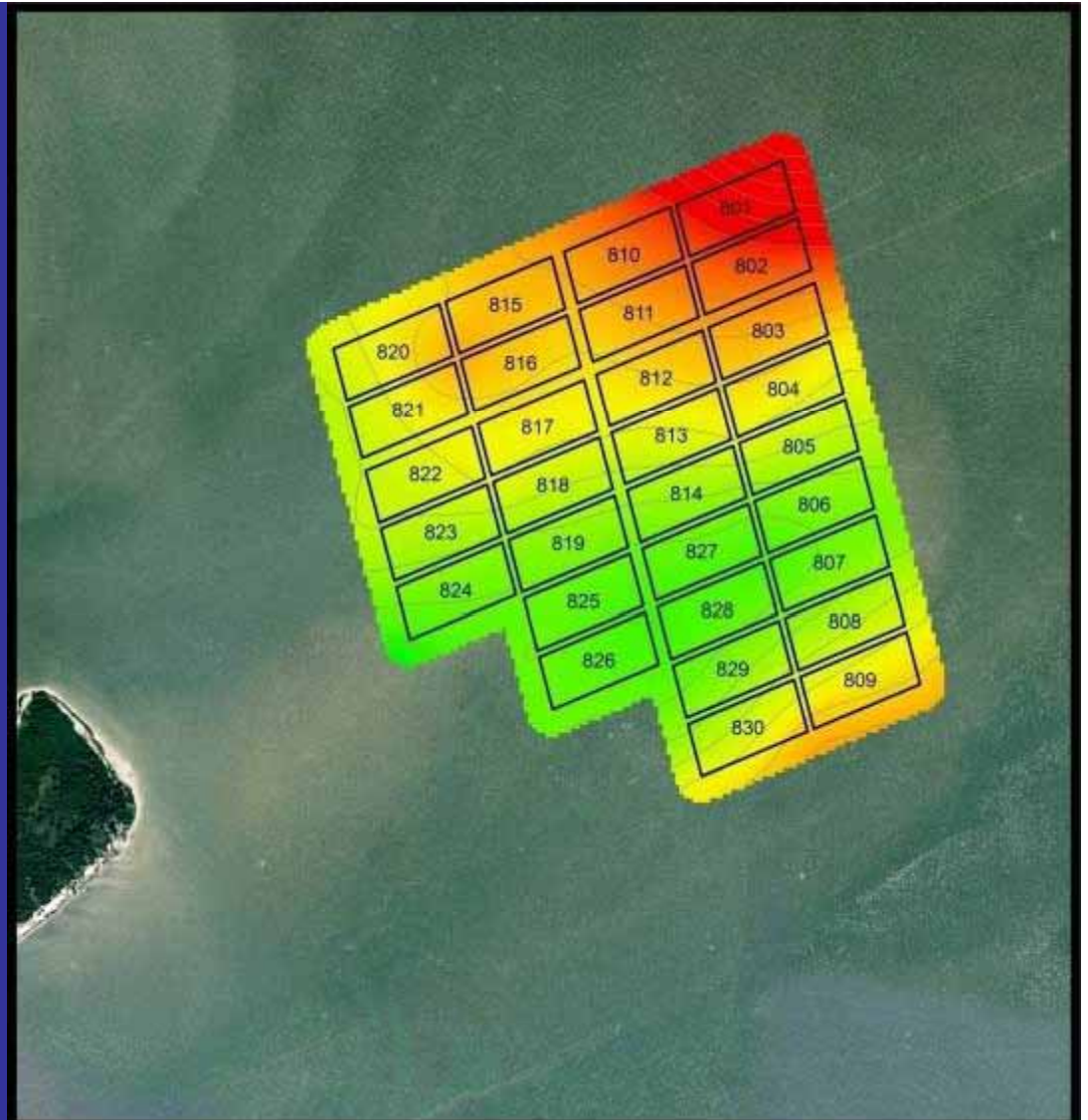
High OM



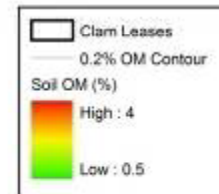
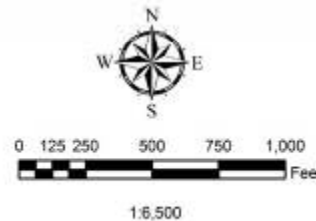
4%

0.5%

Low OM



Dog Island Lease Area Map Series: Soil Organic Matter



This map depicts the spatial distribution of soil organic matter (OM) throughout the clam lease area. This distribution was estimated using geostatistical modeling techniques employed via ArcGIS to model loss on ignition values of soil samples collected at the intersections of the navigation channels. The basemap is a 2001 true-color aerial photograph mosaic provided by the Suwannee River Water Management District.

# Soil Particle Size (%Clay)

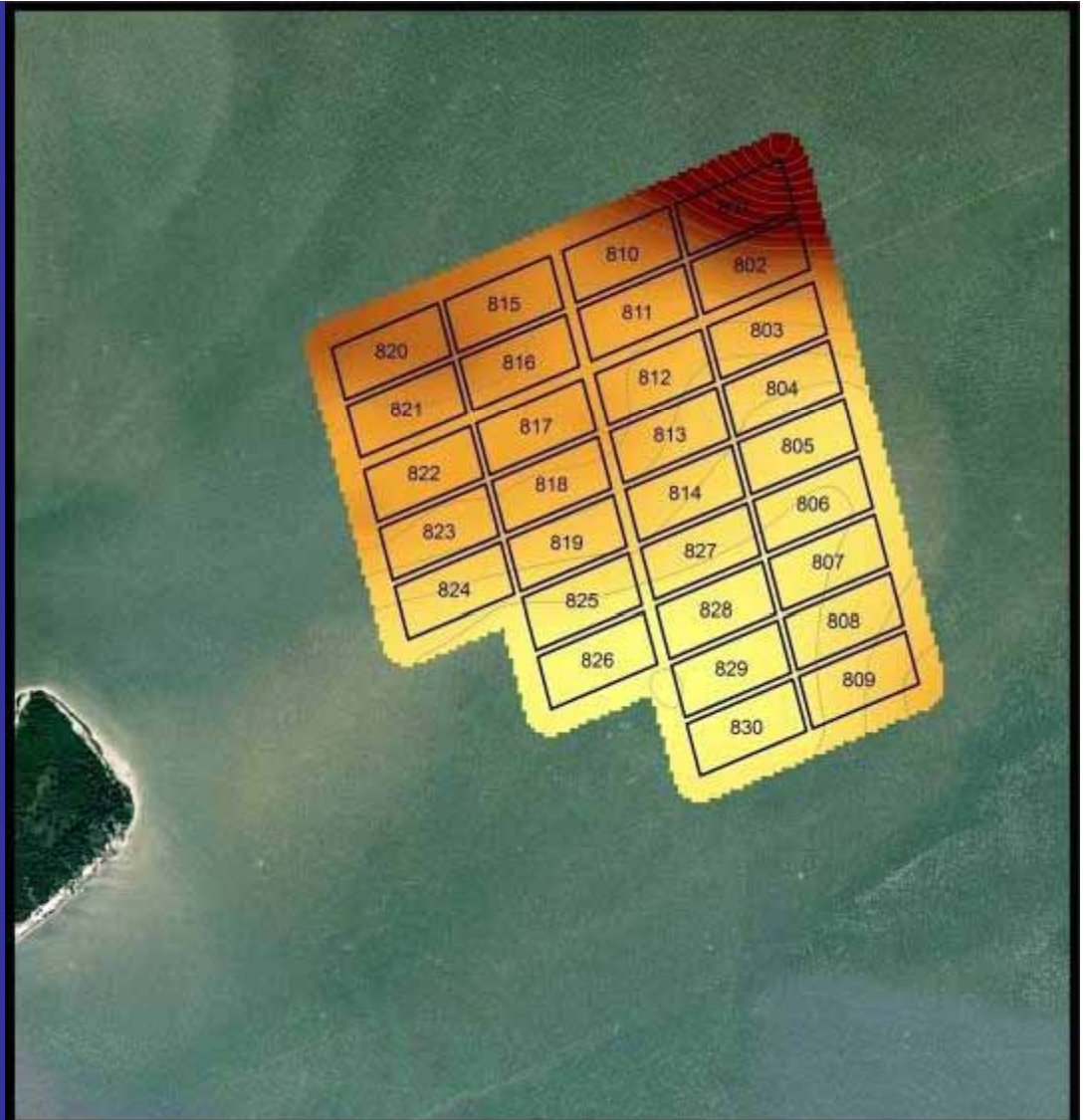
High Clay



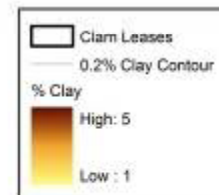
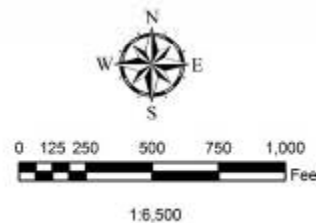
5%

1%

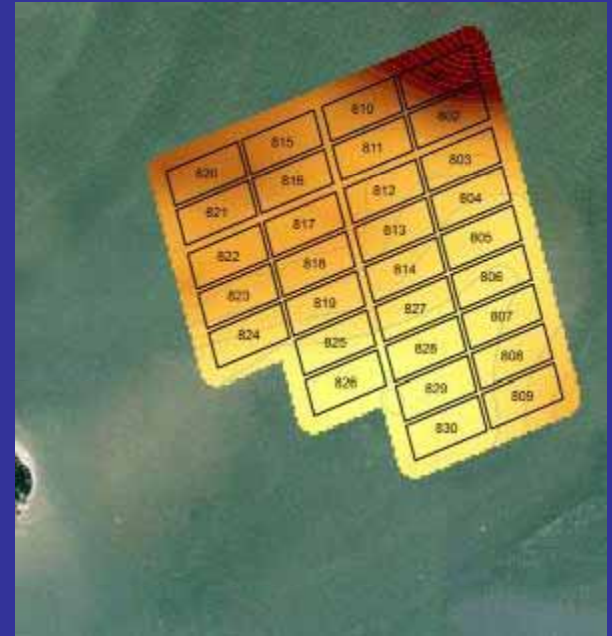
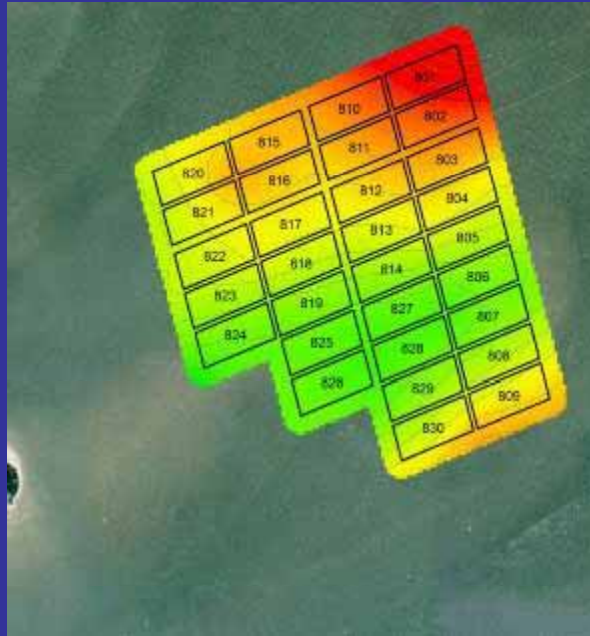
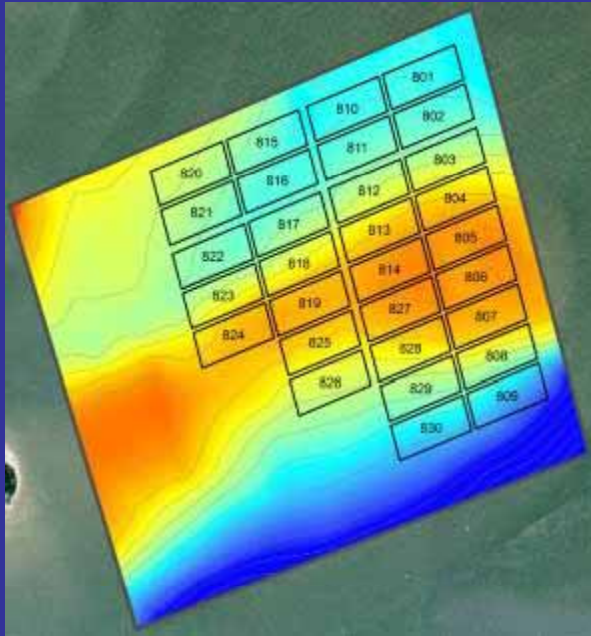
Low Clay



Dog Island Lease Area Map Series: Clay Content



This map depicts the spatial distribution of soil clay content throughout the clam lease area. The distribution was estimated using geostatistical modeling techniques employed via ArcGIS to model percent clay of samples from the intersections of navigation channels. The basemap is a 2001 true-color aerial photograph mosaic provided by the Suwannee River Water Management District.



- OM and Clay are lowest in the shallowest areas (e.g. the sand bar).
- The ocean side of the sand bar has depressed clay and OM as well.
- The protected side of the bar has elevated clay and OM.
- These likely drive the critical biogeochemical reactions that affect clam growth.