Coastwide Survey of Marsh Dieback in Georgia

Contact Name(s): Matt Ogburn, Merry Alber
Contact Affiliation/Info: Dept of Marine Sciences, Univ of Georgia, Athens, GA 30602-3636, (706) 542-5966, ogburn@uga.edu, malber@uga.edu

Participating Investigators/Affiliation: Steven O’Connell (Univ. of Georgia), Ben Maher, Carla Curran, Joe Richardson, Ben Maher (Savannah State Univ.), Jan MacKinnon, Suzanne VanParreren (Georgia DNR)

Study Initiated: summer 2003  Anticipated Completion Date: autumn 2003

Study Site Location(s): 18 sites in the 6 coastal Georgia counties

Keywords: Elevation, Fauna, Juncus, Nutrients, Salinity, Spartina, Sediment, Soil chemistry, Water chemistry

Project Type: Descriptive

Project Outline:
Specific Aims: To look for associations between measured properties and the presence of dieback

Methodology
4 healthy, 4 dieback quadrats (0.5 m2) were set up at each site, and measurements were taken of:
- Plant species, height, stem density
- Fauna: Littoraria, Uca, Geukensia
- Porewater salinity, pH, Eh, temperature
- % sand, silt, clay; % organic matter

After assigning qualitative categories to each factor, associations were sought among:
- Snail density
- Dieback patterns (creekbank, berm, upland, midmarsh)
- Dieback severity
- Elevation
- Proximity to freshwater
- Upland influence
- Hydrologic barriers

Results to Date
There were no differences in parameters between healthy and dieback sites except for the vegetation.

Lessons Learned

Publications, reports, or web-accessible materials