

Monthly Report: September 2014

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To:

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03 October 2014

By:

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Bill and Mary:

Please see the bulleted list below for the major actions and accomplishments associated with Cooperative Agreement Number W912HZ-14-2-0002 for the month of September, 2014. Please let me know if you would like me to elaborate on the details of any items I've listed below, or if there are any other items that interest you.

Sincerely,

Jamie

Data and Analyses

- Statistical analyses of the June 2014 sample event have begun.
 - Historical analyses (e.g., Kitchens et al. 2003; Wetzel and Kitchens 2007) have identified between 7-8 different communities, though the datasets used included multiple samples per year and multiple years.
 - Our analysis of the June 2014 marsh will only include data related to that point in time (n=108 samples).
- Data from the August marsh vegetation sample event were entered into spreadsheet format. These include stem counts (i.e., number of individuals) and dry weights for each species, by sample.
 - This was the third of four samples scheduled for the year. The next sample will begin 25 October 2014.
 - We worked on identification of some unknown species.
- Post-processing of water data was initiated.
 - Height or depth of water will be adjusted so that ground level represents zero (0).
- Organization of historic salinity data was initiated in anticipation of comparisons to be made with the current monitoring effort.
 - Multiple files were acquired from Dr. Kitchens (via Dr. Welch), and there are many instances of data loss.
 - We are working to compile a dataset that includes a continuous hourly timestamp for the years for which we have data. Salinity and water stage data will be entered for each site, inasmuch as the computer files of historic dataset support.

Fieldwork

- Surveys of the three tidal forest areas are scheduled for October 6-8, 2014.
- The final 2014 marsh vegetation sample collection is scheduled for October 25-27.

Miscellaneous

- The barometric pressure sensor located at “Back 4” has been repaired and recalibrated by the company.
 - We will re-deploy the sensor sometime in October. Potential deployments are during the time when we are collecting forest survey data, else during the October marsh sample collection.
 - Barometric pressure is used to post-process the water level (i.e., stage) data at each area.
 - Although data from the barometric pressure sensor at Back 4 has been unavailable, we still have barometric pressure data from the alternate sensor located at the “Swamp 1” area. We will use those barometric pressure data to post-process the water depths/heights from the 15 monitoring areas.

- A poster summarizing Clemson’s role with SHEP was presented at the Clemson University Baruch Institute’s open house on 23 September 2014.
 - A copy of this poster was provided via email to Mary Richards at USACE, Savannah District.
 - The recommended citation for this poster is:

Duberstein JA, Conner WH, Salter Jr, JS (2014) Monitoring Impacts to Soil Salinity and Vegetation Associated With the Savannah Harbor Expansion Project. Clemson University Baruch Institute open house. 23 October. Georgetown, SC.