Improving spatial resolution in estimates of seagrass depth of colonization

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1 Outline

- Needs

  - Seagrass related to habitat quality and strongly affected by water clarity

  - Extensive datasets describing historical and current seagrass growth patterns and distribution in Florida estuaries

  - No consistent approach for estimating depth of colonization (DoC) to establish restoration targets

  - WBID has been considered appropriate management unit although considerable spatial heterogeneity in seagrass growth

  - Reproducible and empirical approaches can be developed that leverage multiple types of information to provide more consistent estimates for restoration targets or nutrient criteria

- Objectives

  - Use information-rich datasets to estimate seagrass DoC by incorporating spatially referenced information

  - Provide a basis for using these estimates to inform nutrient criteria development using empirical relationships with water clarity

- Approach

  - Describe Hagy method and/or WBID approach, emphasis on situations where seagrass growth is spatially variable or when restoration target is misinformed

  - Describe spatially-referenced method, case studies

  - Compare/contrast the two, with emphasis on relation to secchi data

- Implications for criteria development and/or restoration targets

- To do

  - Rectify seagrass depth bin procedures
  - Tidal datum correction
  - Segment specific relationship of seagrass depth of col w/ Secchi
  - Compare cumulative sum approach with binning
  - Quantitative evaluation of grid spacing, grid location, and radius