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Title: Using living data to inform restoration and monitoring: An example from Lone Cabbage Reef

Abstract:

Abstract: “Living” data, data that are continuously collected from field surveys or automated sensors, can provide critical information for advising ongoing restoration and monitoring programs in aquatic ecosystems. For example, these data can help inform whether water quality sensors are recording useable data and at what frequency field crews should service the sensors to ensure their constant functionality. This reduces the likelihood of sensor failure and missing data observations. However, continuous data can be difficult to manage for several reasons including (1) high volume of observations, (2) limited time to enter, QA/QC, and summarize data during busy field seasons, (3) limited training/experience by biologists in working with large datasets (4) changing of data monitoring processes during mid-field season. Here we demonstrate a case history of a data lifecycle for living data from the Lone Cabbage reef oyster restoration project near Cedar Key, Florida using free or low-cost software. We demonstrate how data collected by field surveys on oyster populations and recorded on physical data sheets, as well as water quality data from an array of autonomous sensors are rapidly, compiled, QA/QC’ed, and analyzed to provide feedback to the ongoing monitoring programs. These efforts are designed to inform these monitoring programs to improve data quality, reduce cost, and improve restoration actions by assessing system response and adaptively informing ongoing restoration and monitoring efforts. By creating an immediate feedback loop of data driven decision directives, we hope to improve the effectiveness of the Lone Cabbage Reef and other restoration efforts.

Student Presentation: Yes

Presentation type: Poster

Would you like to be considered for the symposium? Yes

Are you willing to be a moderator? No

Are you willing to be a judge? Yes, poster