Buoy Data Viewer: Search and Display Historical Narragansett Bay Buoy Data Using RI C-AIM's Buoy Data Viewer

Kia Huffman[1], Jeffrey Morgan[2], Baylor Fox-Kemper[3], Heather Stoffel[4], Lewis Rothstein[5], Bethany Jenkins[6] & Geoffrey Bothun[7]

[1]Ecology & Evolutionary Biology, Brown University, Providence, RI
[2]Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
[3]Earth, Environmental & Planetary Sciences, Brown University, Providence, RI
[4]Graduate School of Oceanography, University of Rhode Island, Narragansett, RI, and Rhode Island Department of Environmental Management, Providence, RI
[5]Graduate School of Oceanography, University of Rhode Island, Kingston, RI
[6]Cell & Molecular Biology, University of Rhode Island, Kingston, RI
[7]Chemical Engineering, University of Rhode Island, Kingston, RI

One goal of the Rhode Island Data Discovery Center is to be a central resource for sharing, searching and displaying historical environmental data related to Narragansett Bay, in particular time series data throughout the Bay.

We have identified numerous collections of historic data, many of which are well organized and well maintained by multiple scientists and groups in the state. The collections, however, are stored in different locations and/or in varying formats, making it time-consuming for students/researchers who are searching for specific data to quickly and easily find what they need.

We are working to address this situation by making any multi-site, time series data relevant to the Narragansett Bay ecosystem, available through the RI Data Discovery Center's website (http://ridatadiscoverycenter.org/index.html). In addition to making the search for a historical data set easier, we also offer additional features such as making online graphs, exporting data in various formats, etc.

For the past few months, we have collaborated with Rhode Island Department of Environmental Management's Office of Water Resources (RI DEM-OWR), the lead agency for the Narragansett Bay Fixed-Site Monitoring Network (NBFSMN), to incorporate the network's data into our database. We have successfully harvested quality-controlled, physical water quality time series data (2003,2005-2012) from the NBFSMN website (http://www.dem.ri.gov/programs/emergencyresponse/bart/stations.php) into our online database called the **Buoy Data Viewer**.

The network's dataset with multiple points throughout the Bay has high value to the modeling community. NBFSMN data is also valuable to many other investigators

because it can provide a rich context upon which other types of data can be overlaid, such as a time series of DNA sequences of marine species.

The **Buoy Data Viewer** can be used to quickly display multiple parameters from multiple NBFSMN buoys for a given date range as graph or export graph/data (additional formats under construction).