**INTEGRATED BISCAYNE BAY ECOLOGICAL ASSESSMENT AND MONITORING (IBBEAM): 6 YR OF EVERGLADES RESTORATION IMPACTS ON THE NEARSHORE ECOSYSTEM**

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The Integrated Biscayne Bay Ecological Assessment and Monitoring (IBBEAM) program was initiated in 2012 to monitor the impacts of the Comprehensive Everglades Restoration Plan (CERP) implementation on Biscayne Bay nearshore ecosystems. The IBBEAM program consolidated four previously independent monitoring efforts: 1) continuous recording of nearshore salinity conditions, 2) survey of coastal mangrove habitat utilization by fishes, 3) assessment of submerged aquatic vegetation (SAV), and 4) survey of nearshore epifaunal communities. The IBBEAM program involves field sampling, laboratory analyses, database management, and statistical modelling to monitor a suite of ecological performance measures for ecological indicator assessment and use in adaptive management. A key ecological goal of CERP is to reestablish oligo- and mesohaline salinity habitats along the southwestern Biscayne Bay shoreline which in turn is anticipated to restore historical SAV, fish, and invertebrate community diversity and abundance. IBBEAM evaluates progress towards this goal by: 1) collection of time-series data needed to characterize, and determine change over time in, salinity regimes, SAV communities, SAV-associated fish and invertebrate communities, and mangrove-associated fishes; 2) exploring key relationships between salinity and diversity, distribution, and abundance of SAV, epifaunal fishes and invertebrates, and shoreline fishes; and 3) formulating performance measures and targets to demonstrate the effectiveness of CERP implementation effectiveness. This presentation will describe lessons learned from the IBBEAM program to date, including field methods, scientific findings, habitat suitability models, and adaptive management recommendations, that can be applied to a long term monitoring program in conjunction with full CERP implementation.

BIO: Ms. Besemer is a Senior Research Associate at the University of Miami with 5 years of experience in south Florida and Caribbean marine ecosystems. She has worked with the university for 2 years focusing on the Epifauna community analysis part of IBBEAM acting as Lab manager and field technician.

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