

Latent Coral Reef Factors using Non - Response Analysis Modeling

Joy D'Andrea

College of Science & Mathematics, University of South Florida Sarasota - Manatee, Sarasota, FL 34243
jdandrea@usf.edu

Exploratory Factor Analysis (EFA) is used to determine the number of latent variables that are needed to explain the correlations among a set of observed variables. The concept of EFA was used in this analysis to determine the latent Coral Reef factors that explain variance and measure the correlation that exist between their respective coral reef indicators. In this study, the latent variables are the meteorological measures such as ocean warming, ocean acidification, tourist interaction, temperature, the location of the coral, size and pressure. There were two levels of the EFA process where the factors and their indicators were measured. The factor with the highest eigenvalue allowed progression with its respective coral indicators to be modeled using a comparative method to standard regression. This comparative method is known as non-response modeling. This talk will illustrate the various EFA levels through analysis and the comparative modeling with results and conclusions.