The intention of this study was to discover if there is a relationship between how close to the ocean different plants grow. It compared several factors related to water quality, such as salinity, pH, conductivity, total dissolved solids (TDS), and temperature. The salinity of water has a huge impact on what type of plant life can grow in an area. In this experiment we hoped to determine what type of plant life would indicate different levels of salinity. After collecting 27 samples from three streams and observing the river bank’s flora, we found a number of different plants and animals within each zone of the salinity gradient. We also found correlations between temperature, salinity, and total dissolved solids (TDS). Between each salinity zone, there was a significant difference in temperature, salinity, and pH. This research builds off a collection of research papers showing a rise in salinity within tropical regions in the last 40 years and discusses the implications of rising salinity in these regions.