

My honors thesis compares data collected in the Summer 2014 with Dennis Hubbard's 1980's carbonate budget project. The study site for this project comes from Cane Bay, St. Croix, US Virgin Islands, and is within 3 miles of the original study site in the 1980's. A carbonate budget is a cumulative term that takes into account cycling of calcium carbonate and reef building nutrients all within a reef ecosystem. Field measurements of the carbonate budget show the amount of material within the reef, the material taken out of the reef (transport by currents and storms), and the maximum growth of reef structure using empirical growth rates and core data to estimate net production. The balance between these dynamic factors allows us to analyze and compare their magnitude and shifting abundance over the last 35 years.

