

Daily Variation in Ctenophore Abundance during Summer 2012 in the long term Skidaway River Monitoring Program (SRIMP) Site

Abstract

The gelatinous macro-plankton called ctenophores, commonly known as comb jellies, have characteristically variable abundances. This inconsistency had been found during the long-term weekly sampling of gelatinous plankton in the Skidaway River Monitoring Program (SRIMP) conducted off the dock at the Skidaway Institute of Oceanography (SkIO). The objective of this study was to test whether a more intensive, daily sampling technique would result in less variation in the ctenophore populations recorded in the Skidaway River. In order to conduct this study a ctenophore net was used to collect samples throughout the water column. Ctenophores were extracted from the samples and measured to find their lengths and volumes. The study showed drastic variations in the total number of ctenophores caught daily, as well as in the number present in each of the six daily samples. It was also found that ctenophore abundance negatively correlated with size. This study supported the hypothesis that daily ctenophore abundance was variable in the Skidaway River. Variation in daily ctenophore abundance reflects the variation observed over longer periods of time. This signifies that an increase in sampling intensity to daily intervals may not yield a significantly less variable seasonal pattern than that of the present SRIMP long term weekly sampling frequency.