



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Rachelle N. Selbicky	Project Number S1320
Project Title Variations in Phytoplankton and Zooplankton Abundance between Three Sampling Sites	
Abstract Objectives/Goals My objective was to learn if plankton was evenly distributed throughout the Monterey Bay. My hypothesis was that plankton would not be distributed evenly throughout the bay because many factors affect the amount of plankton that can be found in an area. These factors include weather conditions, the environment, and physical characteristics of an area. Methods/Materials For my project, I measured the amount of plankton that was found from three locations in the Monterey Bay, which were the Coast Guard Pier, the one-mile buoy, and Point Pinos. To do this, I went out in my dad's fishing boat on five different dates and collected plankton. I placed a plankton net in the water behind my dad's boat and then we trolled around the location for four minutes. I then observed, analyzed, and compared the plankton from the three locations. I was able to calculate the number of plankton at each location by counting the number of plankton specimens on ten different slides under a microscope. I also identified the different species that could be found at each location. Results I found that the Coast Guard Pier had the most plankton, the one-mile buoy had the second highest amount of plankton, and Point Pinos had the least amount of plankton. I also found out that phytoplankton is more abundant than zooplankton in these three locations. Diatoms, Dinoflagellates, and copepods were the most common specimens found. Conclusions/Discussion In my conclusion, my hypothesis proved to be correct. Plankton is not distributed evenly throughout the Monterey Bay. Each location had a different number of plankton because each location was subject to different weather conditions and their environments were slightly different. The most protected location had the most plankton, the second most protected location had the second highest amount of plankton, and the least protected location had the lowest amount of plankton. The locations that are not as protected are more susceptible to winds, waves, currents, and swells and these factors affect and lessen the amount of plankton that will be found.	
Summary Statement The purpose of my project was to gather and analyze the species abundance and diversity of plankton in the Monterey Bay.	
Help Received Father drove fishing boat; Borrowed plankton net from my biology teacher Ms. Elder, Interviewed Jeff Fields, a Marine Biologist; and used Notre Dame High School's microscope.	