Name(s)	Project Number
Rishank Pillay	**J0920**

Project Title

Comprehensive Study of Tiday Pool Populations

Abstract

Objectives

The objective of this study is to identify whether the underlying factors of pH and water temperature have an effect on marine population when tested among six tidal pools on the Southern California coastline.

Methods

The brief procedure involved visiting multiple tidal pools, followed by scouting the area for sea anemone species, both Aggregating and Solitary. When found, a self-made 15 cm X 20 cm (made using a hacksaw) area marker was placed and pictures were taken for documentation purposes. Later pH and water temperature measurements were taken using an infrared thermometer and a pH meter.

Results

The results and data showed that there was no correlation between pH and water temperature with marine population. To further substantiate, the water temperature of Treasure Cove and Dana Point were exactly the same and the pH only differed by 2%, but the population differed by 80%. In addition, the population for Cardiff State Beach and Crystal Cove was the exact same, 40, but Cardiff State Beach was always above the average and Crystal Cove was always below the average for pH and water temperature.

Conclusions

My hypothesis was incorrect as there is no correlation between the underlying factors of pH and water temperature with marine population. It can be concluded that other factors apart from pH and water temperature (for example human accessibility and whitewater) affect marine populations when tested among 6 tidal pools comprising the Southern California coastline.

Summary Statement

In this project, I identified whether there is a correlation between the underlying factors of pH and water temperature with marine population when tested among six tidal pools comprising the Southern California coastline.

Help Received

I completed the project myself, but initially was helped by my science teacher and the MBC aquatic center. In addition, my parents drove me to all the tidal pools and helped me over the coarse of the project.