



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Sanjit Datta	Project Number J0905
Project Title Madrona Marsh Microbes	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of my project was to determine whether the sump, a water collection area in Madrona Marsh Preserve, had more bacteria than five other sites on the Preserve.</p> <p>Methods/Materials I collected samples and inoculated agar plates from each site at dilutions of neat, 1/10, 1/100, and 1/1000. The agar plates were inoculated by taking 1/10 of a milliliter of water from each of the sampling containers and transferring the water onto the agar plate. I spread the bacteria out using a glass rod that was sterilized between each inoculation. I later counted the individual bacterial colonies in each agar plate.</p> <p>Results The sump had more bacteria than other sites on the Preserve. However, there was an uncommonly high number of bacteria at one site, probably an error due to cross-contamination from other samples or from the air. Nevertheless, the two sites in the sump had more bacteria than the other five sites.</p> <p>Conclusions/Discussion My results suggest that the sump has more bacteria than the other sites on the marsh, which coincides with my hypothesis. My project was the first broad-scale sampling of the Preserve, so my data cannot be compared to others. However, my results agree with what Mr. Carr, my mentor, thought was happening in the sump.</p>	
Summary Statement My project determined whether the sump or five other sites on the Madrona Marsh Preserve have more bacteria.	
Help Received Conducted research and collected samples from Madrona Marsh Preserve under the supervision of Mr. Robert Carr and Ms. Tracy Drake	