



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Bryce K. Woods	Project Number J1037
Project Title pH Variation in Lake Mendocino	
Abstract Objectives/Goals My objective was to determine the variation of pH in the water of a large lake over the entire circumference at about the same time. My hypothesis was that the pH would vary by about 0.5 on the pH scale between sites. I thought this because there is an inlet on one end of the lake that keeps water circulating into it. Also the geology of the surrounding sides of the lake look different. Methods/Materials A small boat was used and water samples collected in seventeen different locations around perimeter of lake. Samples were collected in small bottles and kept cool and taken to laboratory to used pH meter. At lab pH samples were tested for pH. Data was then taken and entered into an Excel spread sheet program, where means and standard deviation was computed. Results I found that the pH of the lake does not vary, very much. On my first test the mean was 8.44 with a standard deviation of 0.0877. On my repeat test the mean pH was 8.12 with a standard deviation of 0.137. Conclusions/Discussion I did not prove my hypothesis. The pH of the lake was much closer all around than I had suspected. I want to test this further by taking pH at depth and getting more long term pH data for the lake, especially in relation to pH and fish health.	
Summary Statement pH data was collected at seventeen sample sites on the largest lake in Mendocino County and tested for variation.	
Help Received My dad helped launch my boat and drive me around. He edited my writing. I used Alpha Labs pH meter to test my samples.	