



**CALIFORNIA STATE SCIENCE FAIR  
2002 PROJECT SUMMARY**

<b>Name(s)</b> Michael A. Zuniga	<b>Project Number</b> <b>J1439</b>
<b>Project Title</b> <b>Determining the Effects of Various Alcohol Levels on the Heart Rate of Daphnia</b>	
<b>Objectives/Goals</b> My objective was to find if alcohol is really a depressant. I'll determine this by using a daphnia's heartrate after being exposed to various alcohol rates (by volume).	
<b>Abstract</b>	
<b>Methods/Materials</b> I scooped up the daphnia with a spoon and placed on a single microscope slide then added 2-3 drops of 1 of my test liquids. I then counted the heartbeats for 10 seconds, and multiplied the result by 6 to get the heartrate for 1 minute. I tested alcohol levels of 1.2%, 5%, 10%, and 12% alcohol by volume.	
<b>Results</b> The alcohol increased the heart rate. The 12% alcohol level increased the heartrate the most.	
<b>Conclusions/Discussion</b> My hypothesis was wrong. The heartrate increased when exposed to the higher alcohol contents. This disproves the theory that alcohol is a cardiac depressant.	
<b>Summary Statement</b> Determining if alcohol affects the heartrate of daphnia.	
<b>Help Received</b> Teacher helped with experiment	