



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

<b>Name(s)</b> <b>Jorie A. Moore</b>	<b>Project Number</b> <b>J1520</b>
<b>Project Title</b> <b>Testing the Toxicity Level of Different Residues Produced by Various Aquatic Environments</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> Objective: The objective of my project is to determine the toxicity level of different residues produced by various aquatic environments. My hypotheses were the residue from the heat pesticide environment would be the most harmful to the African Dwarf frog eggs# hatch rate, the residue from the aeration fertilizer would be the least harmful to the frog eggs# hatch rate, and each different environment will decrease the toxicity level of the toxins.</p> <p><b>Methods/Materials</b> Materials and Methods: I used oil, Malathion, Ammonia Sulfate, and materials to create four different environments, heat, wave, cold, and aeration, 640 African Dwarf frog eggs. I put the toxins through the four environments for two days then I took the residue from the environments and placed 1 ml in to the twenty ml. container with the eggs. I had one control which had the eggs in their natural environment and three direct controls where I put the toxins directly into the frog eggs# environment for five days along with the other tests.</p> <p><b>Results</b> Results: The residue from the cold and wave environments were consistently the most harmful to the frog egg hatch rate with a seventy percent or lower hatch rate compared to the control which had a hundred percent hatch rate after five days. The residue from the heat environment was consistently the least harmful to the frog egg hatch rate after five days. All the environments decreased the toxicity of the three different toxins.</p> <p><b>Conclusions/Discussion</b> Conclusions: I concluded that the different environments had a positive effect on the toxicity of the pollutions when compared to the direct pollution but the residue still harmed the frog eggs# hatch rate when compared to the natural hatch rate of the eggs.</p>	
<b>Summary Statement</b> the purpose of my project is to determine the toxicity level of different residues produced by various marine environments	
<b>Help Received</b> Frog eggs provided by Mr. Stewart Wiley. Mother helped revise project and helped put the board together. Dad supervised the experiment involving toxic chemicals.	