



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Genevieve Mount	Project Number S1422
Project Title A Forensic Study on the Effects of Seawater on the Growth Rate of Local Sarcophagid and Calliphorid Larvae	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The object of my project is to determine, through laboratory experiments and field analysis, what effects seawater have on the growth of maggots feeding on a corpse. I tested if and how maggot growth is effected by seawater saturating the ground under the meat or by meat soaked in seawater. My hypothesis was that the seawater underneath the maggots and meat soaked in seawater will cause the maggots to develop more slowly than maggots raised on plain water or plain meat.</p> <p>Methods/Materials I conducted my test with wild fly eggs collected from a piece of beef liver left outside for a day. I then raised the maggots in shallow, round containers. Each container held 10 grams of beef liver and 20 maggots. There were four treatment groups: control, seawater under the meat, the meat soaked in seawater for one hour, and the meat soaked in seawater for four hours. The testing environment was controlled; leaving seawater as the only variable.</p> <p>Results The results of my experiment show that the treatments of seawater under the meat, and the meat saturated with seawater had no significant affect on the growth of the maggots. The trend lines for each treatment group have similar slopes, which proves that the seawater around or in the meat did not affect the maggots. A modified box plot of maggot growth rates showed no outliers, further supporting the conclusion.</p> <p>Conclusions/Discussion The results of my experiment show that saltwater under or in a corpse has no affect on the maggots after they hatch. This means that the forensic entomologists do not need to take the salty conditions into account after the maggots have hatched.</p>	
Summary Statement The purpose of my project is to determine if and how seawater affects the growth rate of maggots.	
Help Received My father helped with the manual labor and emotional support.	