CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY

Name(s)
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Project Number
J1026

Project Title
The Effects of Different Marine Environments on Oil Toxicity Level and Its Effect on Fish Embryo Development

Abstract

Objectives/Goals
The goal of my project is to determine if the residue of oil from different marine environments is just as toxic as the oil itself.

Methods/Materials
Made a 3:1 water to oil solution. Place each solution in four environments: a simulated wave environment, an aerated environment, a heat environment and a cold environment. Each solution was left in the environment for 48 hours. I then took the residue from each solution and added 0.5 mls into a petri dish containing fish eggs and water. I recorded development for 7 days.

Results
Control show fish deveopment went to an average of 3.5 stage development. Fish Stages (1=earliest to 4=eyes prominent and heartbeat) All environment stop the deveopment at or before stage 2. Oil residue from heat environment was most harmful with an average of 1.6. The least harmful was aerated environment with an average of 2.0.

Conclusions/Discussion
In Conclusion, I learned different marine environment will have an effect on oil residue toxicity. However, toxic residue is left behind in all water environments and can harm marine life at early stages. Direct oil exposure is still the most toxic.

Summary Statement
Investigate if the residue of oil from different marine environments is just as toxic as the oil itself.

Help Received
Father helped create oil solutions. Grandfather help with supervision and graph suggestions.