



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Danielle J. Gessow	Project Number J0910
Project Title The Devastating Effects of Oil Spills	
Objectives/Goals My objective was to determine the effect of different amounts of oil on elodea densa plants and their inner cell structures in an aquatic environment and the effects of oil clean-up from the aquatic environment.	
Abstract	
Methods/Materials 10 quarts of distilled water 25 elodea densa plants metal weights for plants 5 plastic fishbowls clean gravel to cover bottom of fishbowls plant lights microscope ruler paper towels cutting blade permanent marking pen 500 ml beaker lamp oil strainer skimmer Add 2 quarts of distilled water to each fishbowl. Take each plant and cut it with a cutting blade to 4 inches. Five plants are labeled and placed in each of the five fishowls. After 2 weeks of growth, measure the plants and observe them both visually and microscopically. Record your observations. Measure the appropriate amounts of oil with the 500-ml beaker. Add nothing to fishbowl 1, 25 ml to fishbowl 2, 50 ml to fishbowl 3, 100 ml to fishbowl 4 and 200 ml to fishbowl 5. Expose the plants to the oil for 7 days. Again measure the plants and observe them both visually and microscopically. Record your observations. Take the strainer and syringe and try to remove as much oil as possible from each of the 4 fishbowls that contain oil. Allow the plants 7 days to recover. Continue your observations in the same manner.	
Results After two weeks of growth the elodea plants and their inner cell structures were extremely healthy. One week after the oil spill the plants began to disintegrate. One week after the clean-up, only two plants exposed to the oil remained. The inner cell structure of the elodea densa plants exposed to oil also	
Summary Statement My project is to determine the effects of oil spilled on elodea densa plants in an aquatic environment as well as the effect of oil cleanup.	
Help Received My mom helped me buy the materials and edited my writing.	