



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Morrigin K.A. Fedinick-Emmons	Project Number 35104
Project Title The Golden State Flaming Flora	
Objectives/Goals The objective is to determine whether California Native Plants are more or less fire-resistant when dead or alive. Methods/Materials A propane torch was used to burn 7 species of plants in a controlled lab environment. There were 21 samples of each plant, live and dead. Each specimen was burned until self extinguished or 2:00 minutes passed. Plant masses were obtained pre- and post- burn. Fire-resistance was determined by percentage of mass lost and burn time. Results The plant specimens with the greatest fire-resistance were the live sample of the Deer Fern and the dead sample of the Western Coltsfoot. Overall, the live plants group were most fire-resistant based on average mass loss of 1.002 grams. The dead plants group was less fire-resistant based on average mass loss of 1.479 grams. Conclusions/Discussion Based on experimental results, one can conclude that California Native Plants tested were more fire-resistant when live. A homeowner's removal of dead vegetation could potentially lower the risk of property damage in the event of a wildfire.	
Summary Statement This project explored the fire-resistance of live and dead California Native Plants.	
Help Received Used lab equipment at Humboldt State University under the supervision of Dr. Jeffery Kane; Principal allowed clipping of plants from aboretum; Fire Battalion Chief helped me better understand topic; Family friend helped edit/give suggestions;	