



**CALIFORNIA STATE SCIENCE FAIR  
2015 PROJECT SUMMARY**

<b>Name(s)</b> <b>Morrigin K.A. Fedinick-Emmons</b>	<b>Project Number</b> <b>J1108</b>
<b>Project Title</b> <b>The Golden State Flaming Flora</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective is to determine whether California Native Plants are more or less fire-resistive when dead or alive.</p> <p><b>Methods/Materials</b> 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.</p> <p><b>Results</b> 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-resistive based on average mass loss of 1.002 grams. The dead plants group was less fire-resistive based on average mass loss of 1.479 grams.</p> <p><b>Conclusions/Discussion</b> Based on experimental results, one can conclude that California Native Plants tested were more fire-resistive when live. A homeowner's removal of dead vegetation could potentially lower the risk of property damage in the event of a wildfire.</p>	
<b>Summary Statement</b> This project explored the fire-resistance of live and dead California Native Plants.	
<b>Help Received</b> Used lab equipment at Humboldt State University under the supervision of Dr. Jeffery Kane; Principal allowed clipping of plants from aboretum; Fire Batallion Chief helped me better understand topic; Family friend helped edit/give suggestions;	