



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Michelle E. Iafe	Project Number J0919
Project Title Post 2003 Wildfires: A Study on Regrowth of Native and Non-native Plants	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals This project studied the effect of hillside topography on the regrowth of <i>Adenostoma fasciculatum</i>, a native chaparral shrub known as Chamise, following the October 2003 wildfires in Southern California. The hypothesis proposed that for any area of the Elliott Chaparral Reserve that was burned by the October 2003 wildfires, the native Chamise would grow more predominantly and replace other plants.</p> <p>Methods/Materials This project compared the abundance of newly germinated shoots of Chamise on north- and south-facing slopes to non-native plants in the University of California's Elliott Chaparral Reserve in San Diego. Observations were recorded of the number and height of each newly sprouted shoot of Chamise, and of each non-native plant, growing in one-square-meter sized quadrants for 100 quadrants on the north- and south-facing slopes.</p> <p>Results Results showed Chamise grew more successfully on south facing slopes with a ratio of 12 to 1 individual Chamise plants on the south versus north slopes; and the Chamise plants represented 12% of total plant population on south slopes compared to only 1% on north slopes.</p> <p>Conclusions/Discussion The hypothesis was proven for the most part wrong. The Chamise has been crowded out by the non-natives on the north slopes and left to compete better on the south slopes, where it has a better chance of thriving. Chamise has adapted well to events of fire but the future for Chamise does not look good. The non-native plants and development brought by modern civilization are overtaking land once favored by Chamise.</p>	
Summary Statement My project studied and recorded the competition between native Chamise (<i>Adenostoma fasciculatum</i>) and other various non-native plants after the 2003 wildfires.	
Help Received Teresa McKinney was my Science Fair Advisor; Isabel Kay, Coordinator for UCSD Elliott Chaparral Reserve, gave access to Reserve	