



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Taylor M. Krilanovich	Project Number J1715
Project Title Sudden Oak Death	
Abstract Objectives/Goals Does the proximity to redwoods (<i>Sequoia sempervirens</i>) and their duff protect oaks and kill the pathogen that causes sudden oak death? Does ash burnt from redwood firewood protect and help trees to recover from sudden oak death? The objectives of this investigation are to find out if the proximity of oaks to redwoods prevents sudden oak death and if so, how. I think that this may be a lead to find a cure to sudden oak death, and if this cure is natural in origin, all the better. If the cure is indeed redwood ash, then it would save a lot of mucking about with artificial chemicals, so the environment not only wins due to the absence of an exotic pathogen, but also due to the lack of man-made toxins.	
Methods/Materials Oak trees were identified, health measured using my scale, and the distance from the nearest redwood measured. The ash-treated oak grove was compared to the untreated using my scale of health. Data sheet Tree species identification books Graphing calculator Measurement wheel (1.977 m) Digital camera Binoculars Approx. 44 L redwood ash Bleach	
Results The tan oaks seemed to have gained more benefits from being close to redwoods than the live oaks did. The oaks treated with redwood ash were far healthier than the untreated oaks.	
Conclusions/Discussion This study taught me that oaks do indeed seem to benefit from the application of redwood ash and being near redwood duff. This seemed especially true for Tanoaks. It was not clear if Live Oaks benefited from being near redwoods. If I did this study again I would have had more study sites, more variation in the oak species, and include more trees. I feel that this study has many more alleyways of knowledge for me to explore.	
Summary Statement My project investigated the potential positive effects of redwood trees on protecting or helping heal oak trees infected with <i>P. ramorum</i> , sudden oak death.	
Help Received My parents transported me to my five study sites and my father helped me create my measuring wheel.	