

CALIFORNIA STATE SCIENCE FAIR 2004 PROJECT SUMMARY

Name(s)

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Project Number

J0910

Project Title

Recovery of Vegetative Cover after a Fire in the Coastal Chaparral

Abstract

Objectives/Goals

The objective of this project was to examine the recovery of flora after the fire in the coastal chaparral of Southern California. The first species to recover after a fire were hypothesized to be those which are not present in the densely populated chaparral.

Methods/Materials

The density of vegetative ground cover was compared between burnt and un-burnt areas of Chatsworth and Simi Valley. Two and a half square foot plots were randomly selected and percent ground coverage by species was determined.

Results

The results showed that the total ground coverage was higher in un-burnt areas. However, in burnt areas a small number of species, which were not present in un-burnt areas, appeared to dominate. Of these new species, the six species of the genus Hydrophyllaceae appeared to be most prevalent.

Conclusions/Discussion

From this data it is possible to conclude that in coastal chaparral the growth of minority plant species is inhibited by the dense vegetation. After a fire, the once inhibited flora is then able to dominate. The abundance of the Hydrophyllaceae following the fires may indicate an adaptive strategy developed within the genus, which permits it to strive after a fire.

Summary Statement

This project is about the recovery of flora after fires in the Southern California coastal chaparral

Help Received

My uncle, Gene Gushansky, drove me to data collection areas.