

**GRADUATE THESIS DEFENSE AND LECTURE SERIES**  
**Environmental Studies Department**

**Effects of Cutting Vegetation along Trails in Serpentine**  
**Grasslands**

**When: Tuesday, September 6, 2005, 4:30pm to 6:00pm**

**Where: BBC103 (smart room)**

Presenting: **Katie Beltrano**, SJSU Environmental Studies, Graduate Student



Katie Beltrano. Guess where.



Serpentine grassland trail.

**About Katie Beltrano:**

Katie was born and raised in San Bruno and attended UC Davis, earning degrees in Psychology and Environmental Policy and Planning. She started SJSU in fall of 2002 and has worked as a Park Ranger for San Mateo County Parks for 5 years. Katie enjoys hiking, backpacking, skiing, and traveling.

**Abstract:**

The impacts of trail maintenance activities in serpentine grasslands, such as mowing and brush-cutting, are of interest due to the presence of plant species of concern. This research is designed to determine if trail maintenance activities are increasing, decreasing, or having no effect on native and non-native plant distribution along trails.

A random block design with eight pre-selected trail segments, spanning 20m x 0.5m on each side of the trail, was divided into four treatment plots; those mowed using string-cutting in May, in June, in July, and one control (not cut). Two quadrant (0.25m<sup>2</sup>) samples were taken from all plots, one before and one a year after treatment. Results indicate that string-cutting along trails in May through July as compared to not cutting has no significant effect on abundance and diversity of native and non-native plant species. It is recommended that trail maintenance occur during this window depending on precipitation.