



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

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Project Title
Don't Tread on Me: A Study of the Effects of Off-Road Motorcycles on Mojave Desert Flora

Abstract

Objectives/Goals
 My objective is to find if Mojave Desert plants grow in areas used by off-road motorcycles. I think that off-road motorcycle use will damage plant numbers in the Mojave Desert, and with more motorcycle use, the greater will the plant loss.

Methods/Materials
 Method: I made a 3 ft. by 3 ft. grid and divided it into 9, 1 sq. ft. sections. I staked off a 3 ft. by 3 ft. area in the desert (my control) next to an unused motorcycle trail at 4 different sites. I then stretched the string grid over the stakes and counted the number of plants in each grid for 14 weeks, and recorded the numbers in my notebook.

 Materials: Wooden Stakes, Pencils, Field Notebook, Plant Field Guide, Measuring Tape, String, Epoxy, Hammer, and Camera.

Results
 I found that if a site had only 1 time use, the total plant count didn't change that much. With moderate use, plant re-growth was significantly less. With heavy use, virtually all plant life was destroyed.

Conclusions/Discussion
 My hypothesis was partially correct. The more use of a trail by an off-road motorcycle, the damage to desert flora greater was. But, for one time use, the plant totals were not affected greatly. I believe my study demonstrates that motorcycle riding in desert areas is very harmful to plant life.

Summary Statement
 My project is a study to see if Mojave Desert plants grow back in trails made by off-road motorcycle riding.

Help Received
 My Mother proof read my report, and helped count plants. My Father (using power saw) cut wood stakes, helped make grid, taught me how to make an Excel spreadsheet and graphs, and helped in counting.