

## COMPLETED PROJECT REPORT

**Project Title:** Elevated bait stations for California ground squirrel control.

**Research Agency:** University of California - Davis

**Principal Investigator:** Whisson

**Budget:** \$9,900.00

### **Summary:**

The giant kangaroo rat (*Dipodomys ingens*), the Fresno kangaroo rat (*D. nitratooides exilis*), Tipton's kangaroo rat (*D. nitratooides nitratooides*), and Stephen's kangaroo rat (*D. stephensi*) are federally listed endangered species that occur in areas of the San Joaquin Valley and southern California. Although not responsible for the decline in populations of these species, rodenticide use for control of the California ground squirrel (*Spermophilus beecheyi*), threatens their continued existence in some areas. Because rodenticides comprise a major component of a ground squirrel control program, discontinuing their use in endangered kangaroo rat habitat could have severe consequences. Without control, ground squirrels have the potential to increase to levels at which their damage to crops, rangeland, and structures such as levees, is unacceptably high. Further, high density ground squirrel populations may negatively impact kangaroo rat populations, as a result of their competing for food resources.

This project was undertaken to determine if bait stations containing rodenticides for ground squirrels could be modified to exclude endangered kangaroo rats. Several modifications to existing bait station designs were tested for accessibility by ground squirrels and kangaroo rats. Laboratory and field studies identified two designs that excluded kangaroo rats, while allowing access by California ground squirrels. The modifications are relatively simple to make, thereby providing a solution for farmers and ranchers to control ground squirrels while conserving endangered kangaroo rats.

### **Last Updated:**

02/11/09

