



Briefing Statement

Date: February 17, 2010

Title: Mohave Ground Squirrel Research Strategy

Issue: Mohave Ground squirrel research needed to inform development of conservation strategy and Desert Renewable Energy Conservation Plan.

Background/Discussion

Detecting Mohave ground squirrels (MGS) and monitoring population trends is challenging due to extreme distributional heterogeneity within an extensive geographic range and limited annual activity. Yet, presence and trend data are critical for assessing population status and developing effective conservation strategies. In addition to the difficulty in determining the MGS population status, there is a general uncertainty of the animals range, distribution, and specific habitat requirements. MGS is listed as endangered under the California Endangered Species Act and is petitioned for listing under the federal Endangered Species Act.

Research Strategy

A research strategy for MGS will involve three components:

1. A workshop to identify the most effective, efficient strategies for detecting presence and monitoring population trends of MGS. Participants for the proposed workshop will include individuals with expertise in MGS biology, the Mojave Desert ecosystem, detection and monitoring methodology for secretive rodents, and statistical design and analysis. The goal is to use facilitated discussions to develop biologically and statistically rigorous protocols for detecting the presence of MGS and monitoring annual population trends.
2. Development of a peer reviewed, published habitat suitability model for MGS. A regional assessment of MGS potential habitat would provide an opportunity to develop surveying and management plans and likely provide insights into the habitat requirements and habitat connectivity of the MGS. A habitat suitability model will help inform conservation, mitigation, and alternative energy planning. By developing a habitat suitability model with supporting documentation and data layers, the information can be made accessible to all interested parties and updated to as new data are available.
3. Collection of randomized presence absence data throughout and beyond the currently accepted MGS range. Much of the MGS presence absence data is from project clearances and is not randomized. Additional monitoring will make model development more robust and will provide more information on range and habitat requirements.

Task 1 will need to precede tasks 2 and 3 and will need to occur within the next several months. Fort Irwin and Edwards have studies that will contribute to Task 1. The initial development of task 2 has begun but the full project cannot proceed absent additional funding. Task 2 and 3 can run concurrently, as each task will inform the other. A key to task 3 success will be the use of cost efficient monitoring techniques identified in task 1.

Contact

Russell Scofield, DOI Coordinator	russell_scofield@ca.blm.gov	760-365-0955
Bronwyn Hogan, CDFG HQ	bhogan@dfg.ca.gov	916-445-0726