

TESTING NEW METHODS FOR DETECTING MOHAVE GROUND SQUIRRELS

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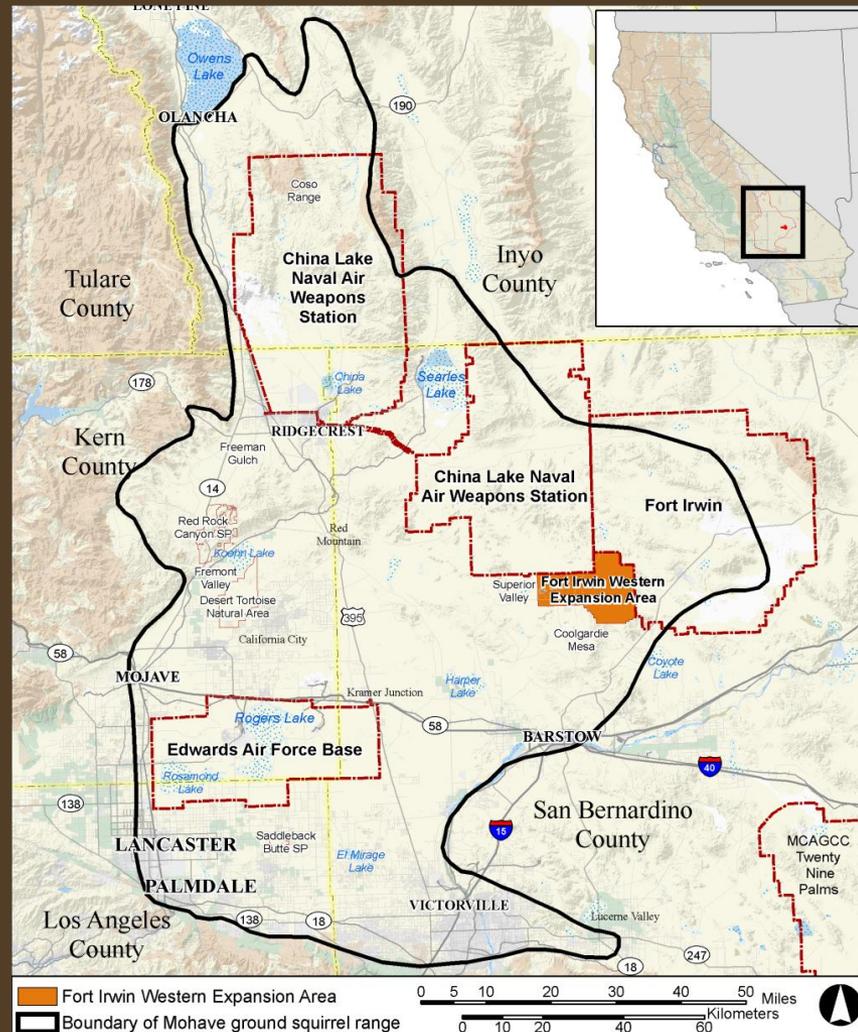
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2009 STUDIES AT FORT IRWIN WEA



MOHAVE GROUND SQUIRREL SURVEYS

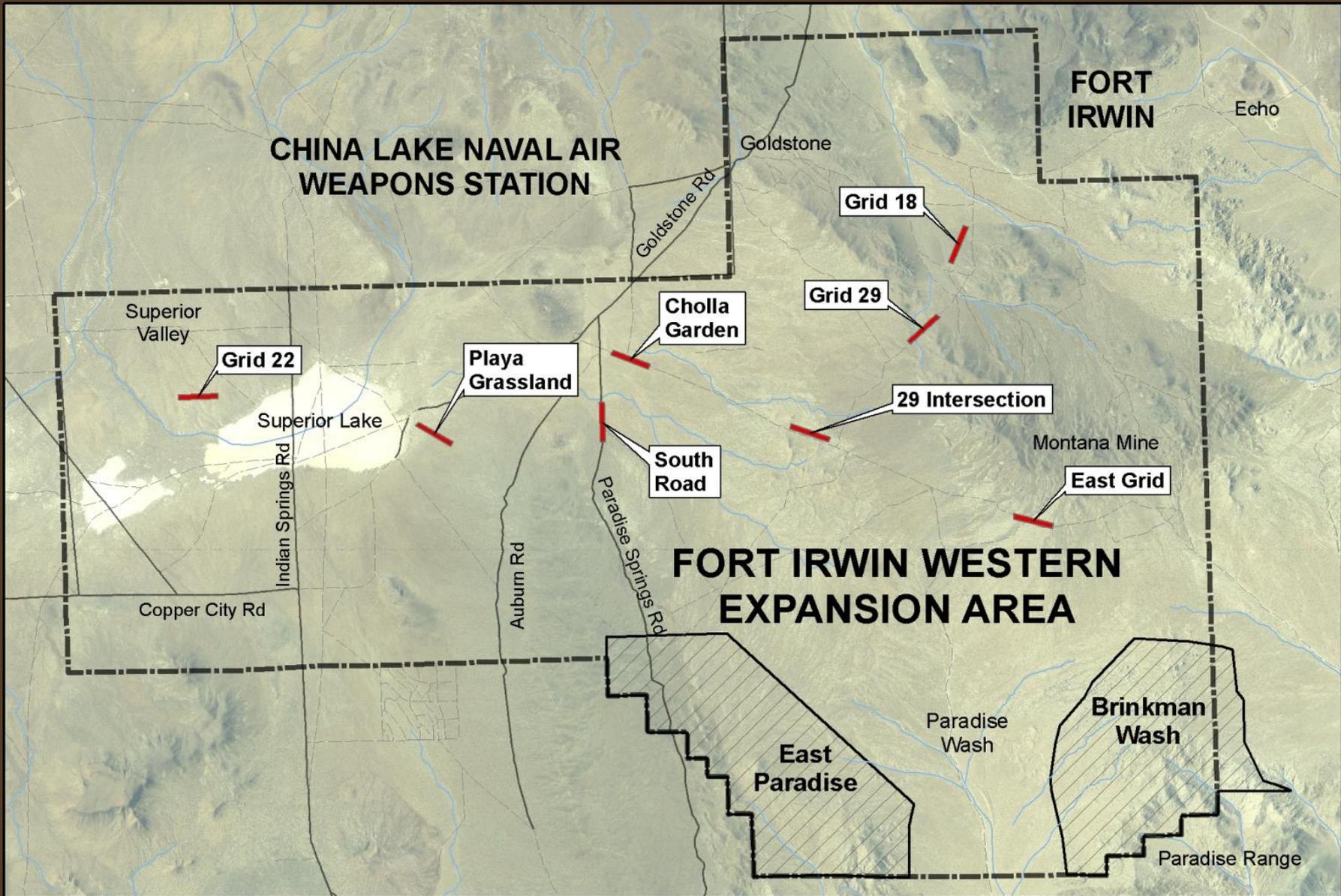
- Standard technique is live-trapping
- Several disadvantages include:
 - Labor-intensive and costly
 - Requires experienced personnel
 - Hot weather cuts trapping time
 - Danger of injury to listed species
- Alternative survey methods
 - Trail cameras
 - Recording vocalizations
 - Track stations
 - Scent dogs

FORT IRWIN WEA

- Excellent study site
 - Known population
 - Previous studies in 2006-07
 - Military lands are secure
- Compare results from live-trap technique with audio and video technology
 - Use audio/video on same study sites before and after trapping

8 STUDY SITES IN 2009

- Selected 3 sites sampled in 2006 study
 - They had highest number of MGS captures that year
- Remaining 5 sites were new in 2009
- The 8 sites were geographically well-distributed across the WEA
- They sampled all major vegetation communities



 Trapping grids (2009)



Grid 22



Playa Grassland



Cholla Garden



South Road



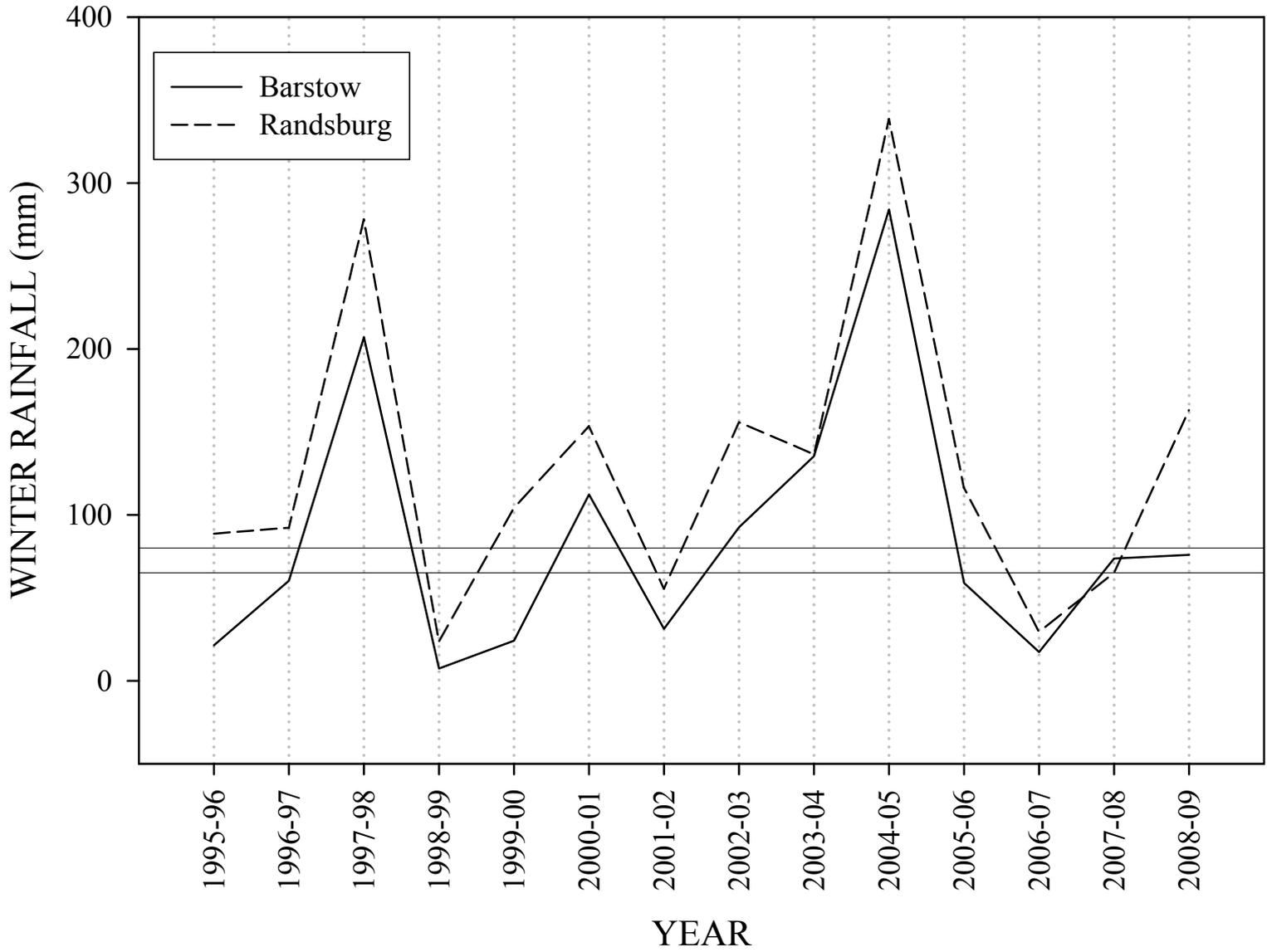


TRAPPING RESULTS 2009

Study Site	Dates	Habitat	MGS Captures
Grid 22	Apr 10-14	Saltbush	0
Playa Grassland	Apr 10-14	Saltbush & Shrub Steppe	0
South Road	Apr 11-15	Creosote Bush & Shrub Steppe	0
Cholla Garden	Apr 11-15	Shrub Steppe	1
Grid 18	May 5-9	Creosote Bush	0
Grid 29	May 5-9	Creosote Bush	6
29 Intersection	May 4-8	Creosote Bush	0
East Grid	May 4-8	Creosote Bush	0

WINTER RAINFALL

- 2004-05 winter rainfall was highest of the decade, resulting in MGS reproduction
- 2006 populations were at a high point
- 2006 and 2007 rainfall was low, no MGS reproduction in WEA
- No data for MGS reproduction in 2008
- 2008-09 rainfall sufficient for 2009 reproduction









2009

A Lot of Trapping, Not Many MGS

- This was a good year to try alternative survey methods
- MGS populations were down and distribution was patchy
- Next – we'll show how the audio/video detection approach worked