MGS TAG Meeting Notes
6/13/13

I. Attendees: Scott Osborn, CDFW; Phil Leitner, CSU Stanislaus; Randi Logsdon, CDFW; Carrie Woods, BLM; Becky Jones, CDFW; Judy Hohman, FWS; Jeff Aardahl, Defenders; Liana Aker & Clarence Everly, Fort Irwin; Larry LaPre, BLM; Leo Simone, LSA; Glenn Stewart, CSU Pomona; Tonya Moore, SCE; John Hayes, LADWP; Stu Richardson, LADWP; Christine O'Brien, ?; Rachel Woodard, consultant; Martha Heath, consultant; Kathy Simon, consultant; Howard Clark, HTH; Shari Heitkotter, CDFW; Fon Duke, DMG; Michelle Maley, China Lake; Denise Laberteaux, EREMICO; Matt Chirdon, CDFW; Scott Harris, CDFW; Krista Tomlinson, FWS; Danielle Dillard, consultant; Phil Brylski, consultant; Lori Bono, CDFW; Eric Weiss, CDFW; Mary Logan, DTPC; Jeff Trow + 1, So Ca Edison; Robert K., BLM; Dave Hacker, CDFW; Aga Napiatek, LSA; Don Mitchell, ECORP; Kristen Mobraaten, ECORP

II. New Results from 2012, Plans for 2013 – round robin

- Grid in west Barstow country club, no results.
- Kathy Simon: Pinon Hills along flood control channel, Cal ground squirrels found, no MGS
- Trona (AGS), Lucerne Valley (RTGS with short tails), Pinon Hills area, no MGS
- Shari Heitkotter: just south of CDFW property in Fremont Valley ER, Sec 16, MGS detected from camera trapping, north side of western Rands, in ACEC fence

III. 2013 Coso Results, Cal City East camera study, Hinkley MGS/RTGS contact zone trapping – Phil Leitner

Coso Monitoring:

- 1st week of April, year 13, numbers reflect winter rainfall with a 1 year lag.
- Monitoring adults in early spring.
- 2008-2011 good rainfall years, last 2 years, non-reproductive.
- 75 mm threshold.
- Almost 70 MGS at cactus peak, Coso Range; 27 at Coso Basin, Deep Valley during good rainfall years. This year numbers are down.
- Need successive years of good rainfall to get numbers up.
- No evidence adults are moving to better habitat.

- Predictions for 2014: Coso Basin, down to 3; down to 6 at Cactus Peak. Same as 2008. If 3rd dry year – what happens then? 3 dry years in a row is common east of Barstow, where there are no MGS.

Demographics are dynamic, plan ahead; what happens at less favorable sites? What's the best way to monitor? Is demographic data helpful where there are local extinctions?

- LA County habitat has changed, though there was a sighting in Phacelia preserve.
- Changing habitat attracting ravens? Evidence of raven take of AGS, circumstantial evidence of take of juveniles.
- Increase of pistachio orchards = influx of ravens.
- Climate: long-term droughts from 1940s to mid-1960s at EAFB, antelope valley drought records in 1920s-1930s?

Camera Study – Cal City East:

- Mostly private land in area, trapped in BLM and State land.
- East & South of CA City – almost all private land, no data on MGS, a lot of OHV and sheep grazing, potential for RE.
- 2011-2013: Access granted to 2 private sites, no MGS. MGS found just west of linkage between DTNA and EAFB.
- A lot of OHV activity: MGS appears tolerant.
- Focus on DTNA – EAFB linkage for mitigation. Will EAFB fund acquisition north of the base? They want a buffer zone.
- Southern edge of SR-58 – a lot of willing sellers.

Hinkley contact zone:

- Ag areas w/ RTGS: hybridization? RTGS here since 1977, how far into MGS range have they gone? Is it a threat?
- Funding from PG&E from groundwater contamination in Hinkley Valley, need to remediate chromium, HCP needed to cover remediation activities.
- Extensive biological surveys and impact analysis, including MGS. 14 sites being trapped this year. Tissue samples to ID MGS and RTGS, genetic analysis being conducted by Marjorie Matocq at UNR.
- RTGS appear to be moving west of Hinkley along Hwy 58 and coming into contact with MGS. Hypothesized—need to collect evidence. Analyze old specimen from east of Hinkley. CNDDB observations around Hinkley and east of Hinkley are not reliable.
- 2012 camera trapping, volunteer trapping on public land west of Hinkley: 6 probable MGS captured in 4 sites west of Hinkley this year.

IV. Volunteer trapping: Current year results and 3-year perspective – Leo Simone, Don Mitchell, Kathy Simon

- 4th year of volunteer trapping in Trona, Ridgecrest, Searles, and Hinkley areas. MGS detected in Northwest of Hinkley area on 5/26/13.
- ECORP: No MGS just west of Hinkley.
- Leo: 5 MGS, 4 females,1 male on 3 of the 4 grids north and south of Hwy 58, west of Hinkley (in Harper Lake population center or expansion habitat).
- Will volunteer trapping be able to continue, where is it needed? Rangewide? Administrative support needed (permitting, access, etc.)
- Economic benefits of volunteer work – value = $300K. How to get volunteers: research, training, chance for people to see MGS.
- Revisit for places to visit next year (in the fall) and get volunteers.

V. Five-year status update – Phil Leitner

- CNDDB, regional studies, protocol surveys, incidental observations
- Protocol surveys: Very little in central, northern part of range
- A lot of RTGS in Ft. Irwin, east edge of MGS range
- North end of MGS range: China Lake, BLM, NPS protection, not much data
- Fort Irwin update from Liana Aker: camera surveys in northern Ft. Irwin, where Recht documented MGS; did not get MGS this year (got RTGS). Ft. Irwin staff will continue to systematically search northern part of installation.
- Volunteer camera trapping next year?
- All 2011 spreadsheets checked and data on spreadsheet. Camera analysis very slow.
- Phil divided range into 12 subareas with detection data maps.

VI. 2012 MGS workshop overview of topics – Scott Osborn and group

- Workshop report finalized, will be published by DOD
- Climate change topic: Vegetation shifts: USGS restudy of 50 Nevada test sites. Sites dominated by spiny hopsage in the 60s, missing in the 90s. UCR climate modeling used. Phil will send source.
- How to improve interagency inter-group communication: Meetings once a year or more.
- General dissatisfaction with lack of follow-up on workshops and meetings.
- General lack of funding for objectives derived from the meeting.

VII. Status of MGS conservation strategy, format and content – Randi Logsdon

- Draft reinitiated by CDFW in 2012. CDFW is working with Desert Managers Group in reviving the completion of the conservation strategy.
- Format was presented for assessment, strategy, and summary of management actions.
- Strategy includes habitat protection, conservation mechanisms, habitat management, research need, climate change impacts, monitoring and adaptive management.
- Follow-up and group feedback:
  - Conservation Strategy technical review to small group, public review to larger group
  - Would like to set up TAG conservation strategy review meeting for final draft after all review and comments integrated (January?)
  - Add to map: East of CA City data gap: not enough private parcels surveyed. May not ever get permission to survey. City is protective of OHV use in the area.
  - Add linkages through DOD land, particularly China Lake. East of China Lake not likely to serve as a linkage; pistachio fields have destroyed habitat.
  - There is probably a population center in China Lake.
  - Data gaps/research areas in already protected areas (e.g., north of China Lake) not high priority – interesting science but not at risk
  - North of EAFB and south and east of CA City remain highest data gap priority
  - New detections in DTNA-EAFB linkage and west of it in data gap area along north border of EAFB. Expand EAFB – DTNA linkage or expand the EAFB population center?
  - What if expansion habitat contains a breeding population? Re-designate and add more expansion habitat?

VIII. MGS and DRECP – Randi Logsdon

- Background – joint NCCP/HCP/BLM land use plan amendment, 22.5 million acre plan area in Mojave and Sonoran deserts. Plan covers renewable energy (RE) development while planning for conservation of species and natural communities. Web site: www.drecp.org; interim snapshot of progress on the website.
- DRECP includes Biological Goals and Objectives (BGOs) and conservation measures (prescribed actions) for MGS, which specify conservation targets and how to meet them.

- Conservation actions will restore movement barriers in corridors, restrict RE development in important ecological areas, conduct baseline studies in data gap areas, and compensate for loss of habitat.
- Important areas include known population centers and expansion habitat, postulated linkages, and predicted distribution under climate change impacts.

IX. DMG Update – Fon Duke

- Collaborating with CEC on conservation plan
- Collaborating with USGS on the model
    - Model published (Inman et al., 2013) and posted to Data Basin

X. Ongoing conservation planning - Group

- Jeff A: What is the length of time it takes for durable conservation to the point of seeing the stabilizing effects? Look at conservation measures of CDCA plan of 1980 – what worked, what didn't? Need implementation in a meaningful way. CDCA plan had management prescriptions: e.g., control livestock grazing, vehicle use, protect, restore, and enhance habitat. Measures were too broad, read like objectives and goals. Funding mechanism wasn't developed at the time.
- Need land acquisition and monitoring of populations to see if it's working.
- Acquisition put in place through permitting, but land not acquired. How long is this process and how is it followed through?
- Phil: Why was SB-34 land in DTO DWMA if it's already protected? Why isn't acquisition targeted for land that is more at risk of being disturbed/fragmented?
- Regional staff to look at high-risk important areas for acquisition (e.g., linkage between EAFB and DTNA.

XI. Camera vs. traps – Phil Leitner + group

- Integrate cameras with protocol survey approach? High risk of theft in more public area.
- Can get site-specific approval from CDFW to vary from protocol and use alternative techniques.
- How to determine # of traps and cameras to use per area? 150 m spacing = approximate width of MGS home range.
- How many cameras per ha needed? How to present bait?
- Computer recognition of photos to speed up analysis?
- Data gaps, research areas – can we get gender, mark-recapture info from camera? Sometimes, yes.

- Need statistically robust protocol.
- Use model as a tool to choose mitigation?

XII. Burrowing rodents and land disturbance – Martha Heath

- Is it safe to bulldoze construction sites in winter?
- Adelanto Solar Project: examined impact of grading on burrows
- Site mowed and graded, multiple vehicles and surface impacts
- Rodent burrows remained in an open trench. Burrows were 8 – 36”below the surface.
- Some survived unharmed; hypothesis that the burrows are deep enough to avoid harm and rodents were seen digging themselves out of harm’s way
- Hypothesis depends on type of grading – leveling the top layer only in this project.
- Research needs to be done in this area: Create test burrows at different depths and study impacts; insert cameras in ends of the burrows.
- What is response behavior to disturbance? Could projects grade towards off-site habitat and would that help?
- Need to determine depth of MGS overwintering burrow.

January for TAG meeting and conservation strategy meeting.