



Welcome!

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# San Diego Zoo Global Natural Lands Program

Safari Park Biodiversity Reserve



## MISSION

- Science based, species focused conservation land management
- Scientific research
- Education and outreach



Charlie



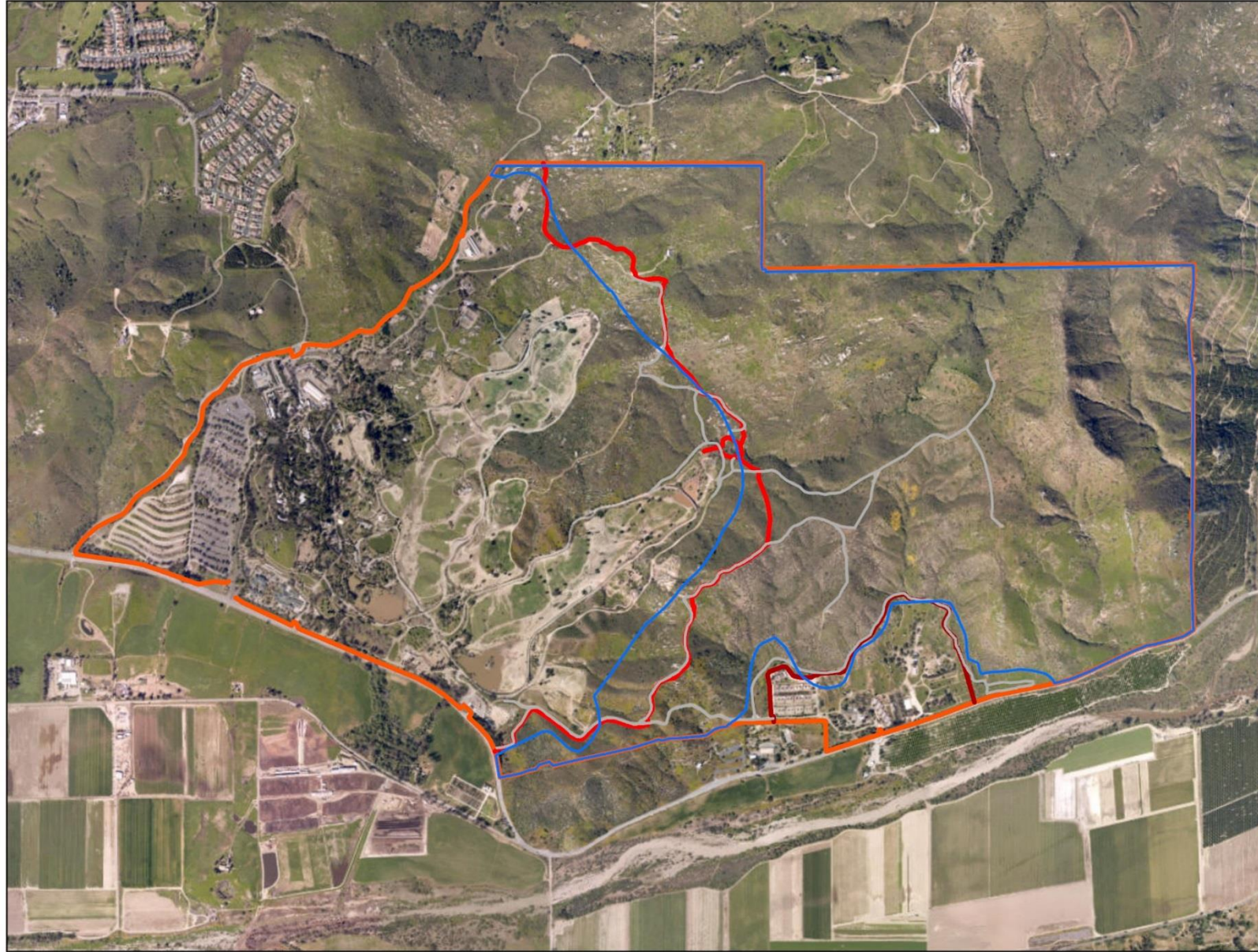
Emily



Zara



# Safari Park Biodiversity Reserve



0 0.25 0.5 1 Miles

## LINES

- Orange: Safari Park perimeter fence
- Red: Predator fence
- Blue: MHPA (Multi-Habitat Planning Area) boundary - City of San Diego
  - Lands set aside by the City for conservation
- Dark red: ASE perimeter fence

## HABITAT

- Coastal Sage Scrub
- Cactus Scrub
- Chaparral
- Oak woodland
- Riparian

## SENSITIVE and RARE SPECIES

- 17 CA DFW Species of Special Concern, Watch List, Listed Rare Plants
- 10 IUCN Least Threatened or Near Threatened
- 1 Federally listed species



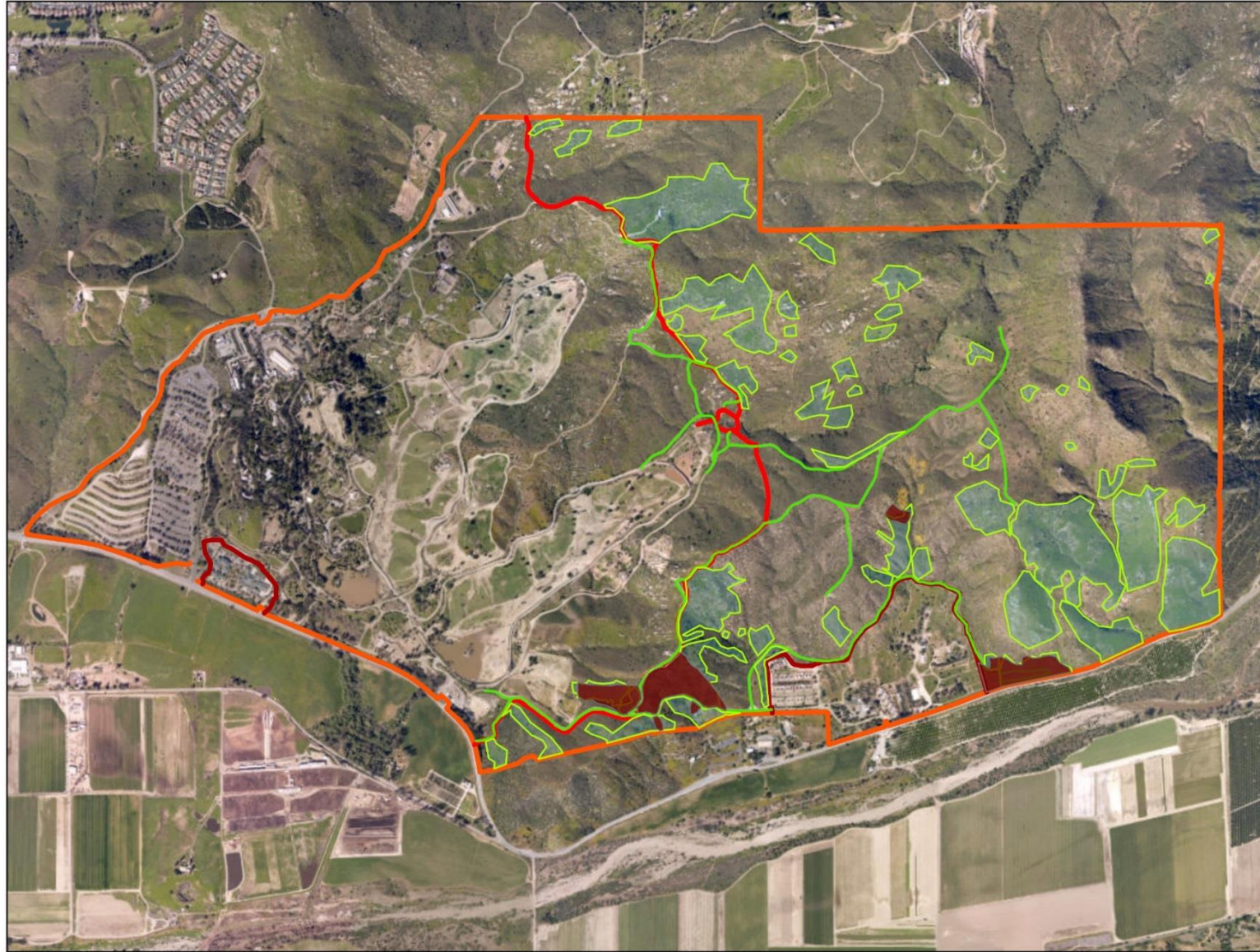
## Restoration and management: invasive plants



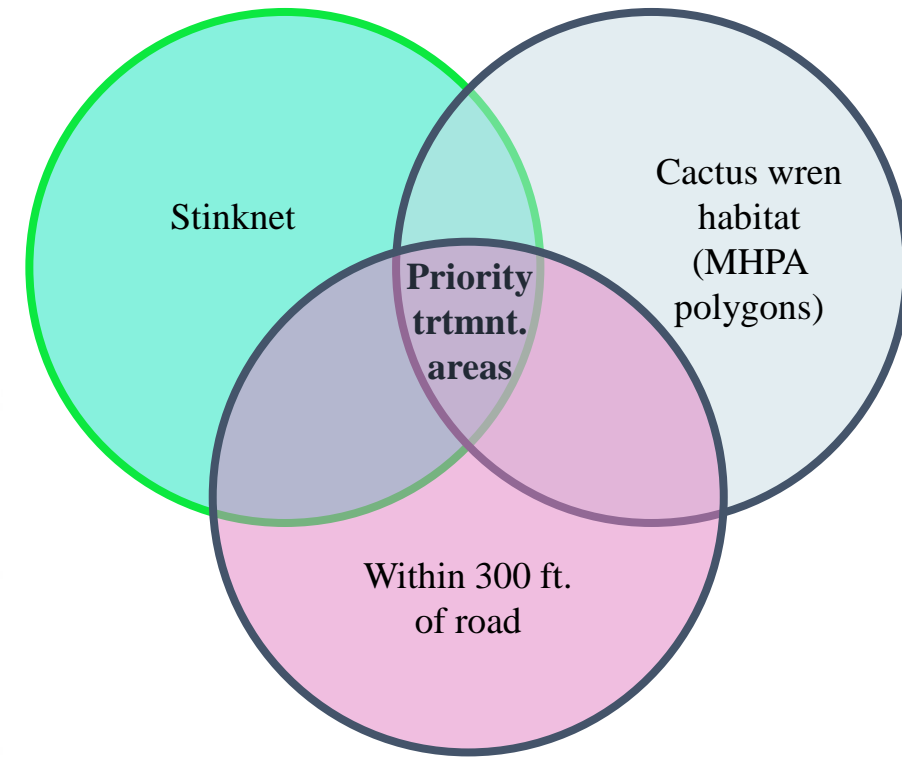
“Stinknet”



# Stinknet project: Spring 2019 treated acres



0 0.25 0.5 1 Miles



## OUTCOMES

- 19.5 acres treated with Transline and Gallery SC (pre and post emergent herbicides)







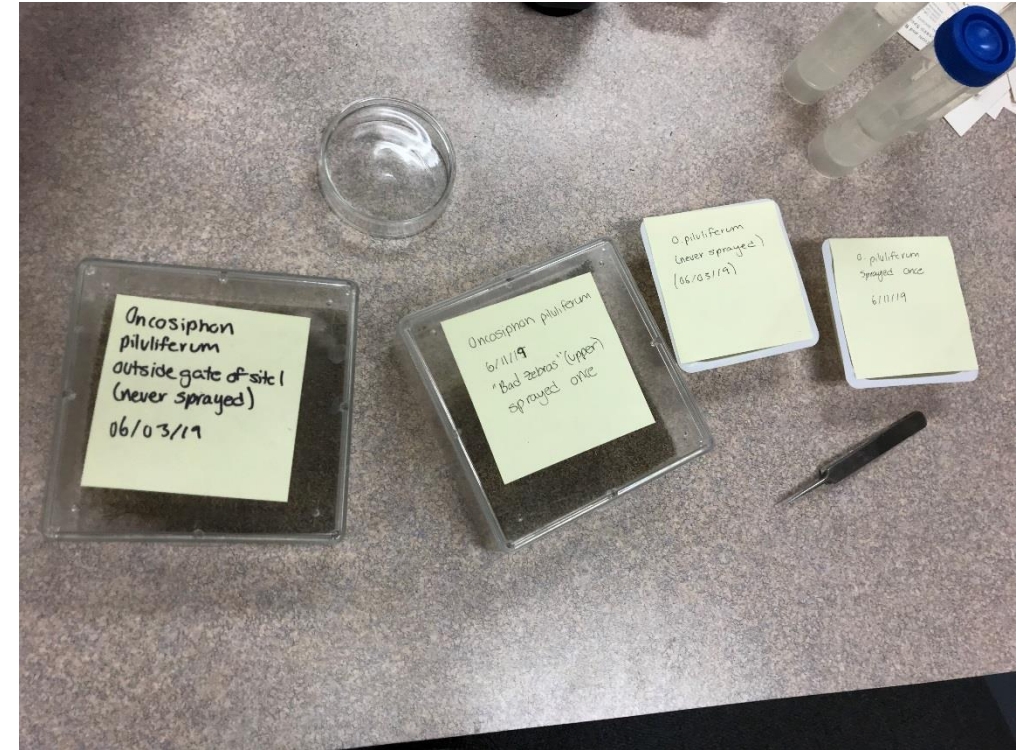
# Stinknet seed germination project (Zara Perez-Ochoa, NLP Summer Fellow)



No published studies on stinknet seed germination rates

Questions:

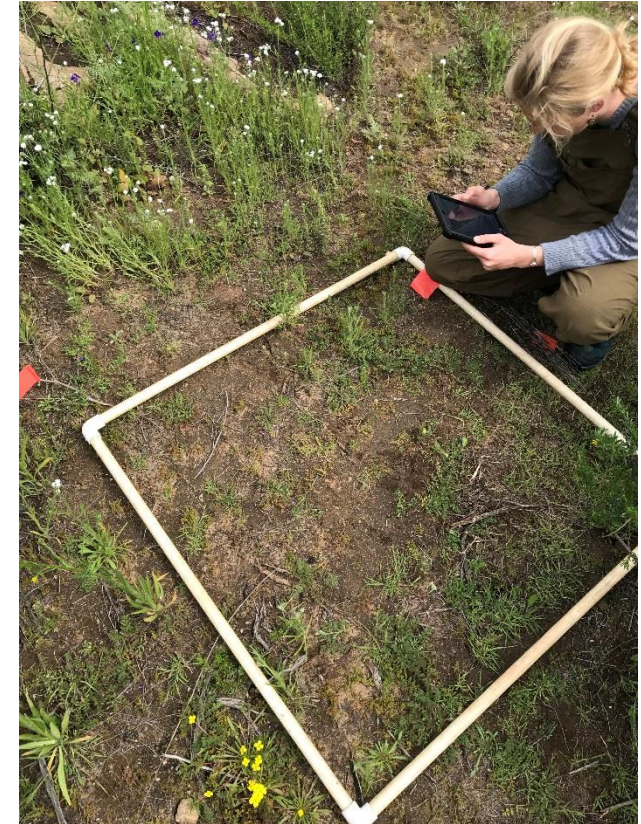
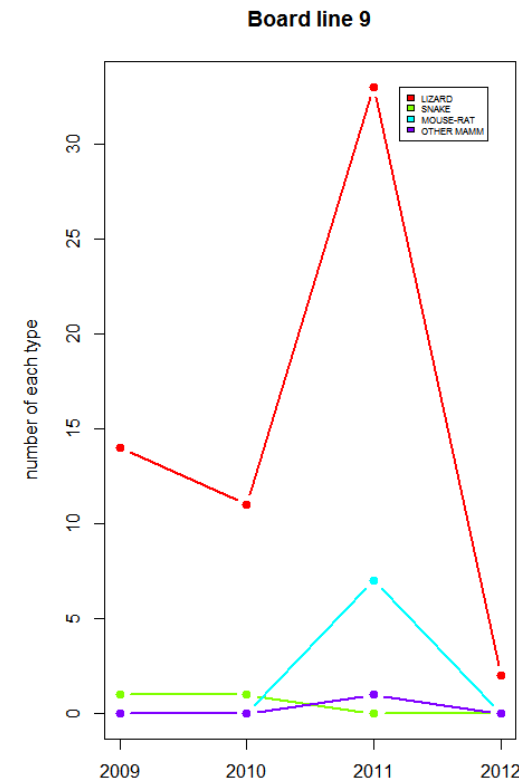
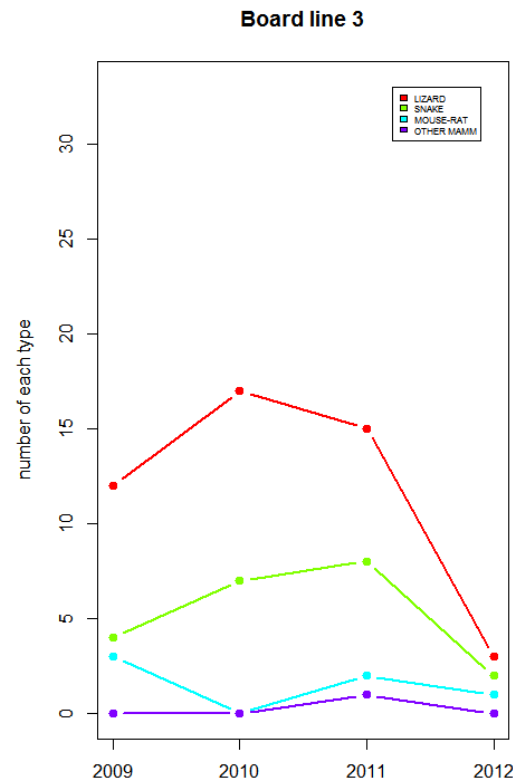
1. Do environmental variables affect seed germination rates?
  - Simulated: drought, El Niño, wildfire
2. Are seeds from sprayed plants less viable?
3. What is the lifespan of stinknet in the soil seed bank?





# Effect of stinknet removal on reptile frequency and diversity (Emily Burson, NLP Research Associate)

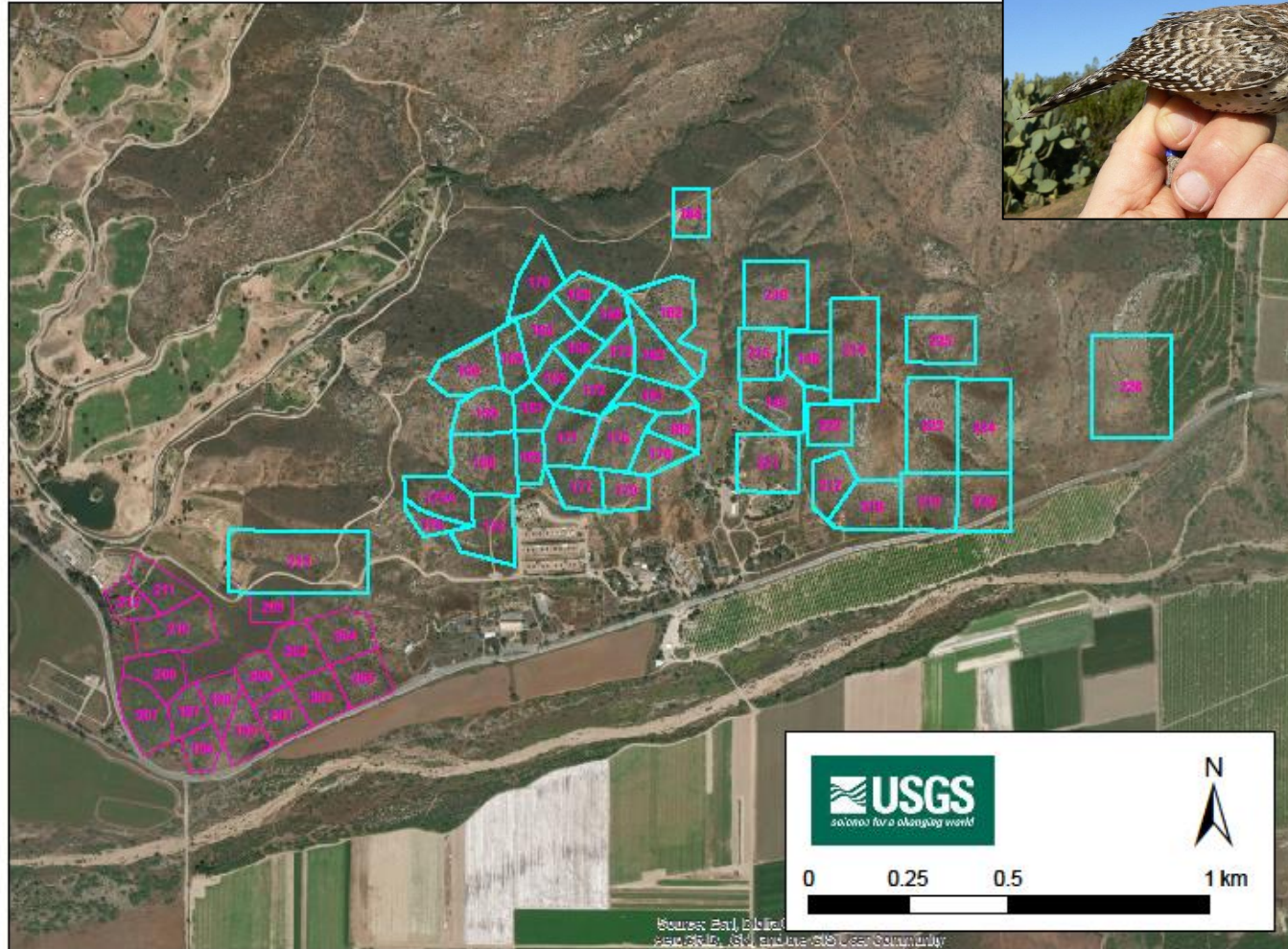
- Decline in reptiles in period between 2009-2017- may be due to stinknet
- Experimental removal on two board lines





# Cactus wren monitoring, banding (USGS)

- California Species of Concern (CDFW)
- Cactus scrub specialist
- Needs open ground to forage





# Native plant survey (Conservation Biology Institute)

- Campo clarkia (*Clarkia delicata*)
- Cooper's rein orchid (*Piperia cooperi*)
- Four new families and > 30 new species to species list

Cooper's rein orchid



Campo clarkia

