

How the Center for Biological Diversity uses biodiversity data to fight for species and habitat protection



Tiffany Yap, D.Env/Ph.D
Staff Scientist, Urban Wildlands Program
Digital Data in Biodiversity
Research Conference
June 4-6, 2018

The Center for Biological Diversity

- Mission: To secure a future for all species, great and small, by using science, law, and creative media to protect the lands, waters, and climate that species need to survive.
- > 600 endangered species listed
- > 400 million acres of habitat protected



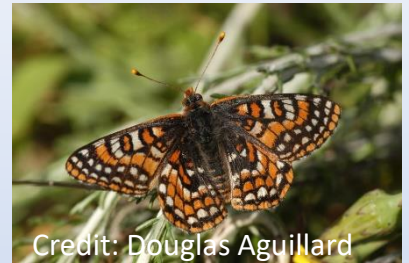
Credit: Tiffany Yap



Credit: Robert Berdan

Endangered Species Act (1973)

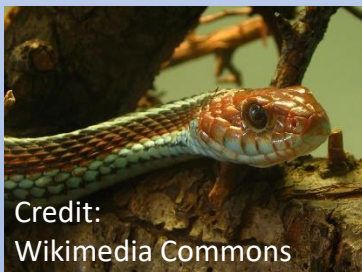
- Protect and recover imperiled species and the ecosystems upon which they depend
- “to halt and reverse the trend toward species extinction, whatever the cost.” (*Tennessee Valley Authority v. Hill 1978*)
- Designate critical habitat, develop species recovery plans – driven by biodiversity data



Credit: Douglas Aguillard



Credit: Don Brubaker, USFWS



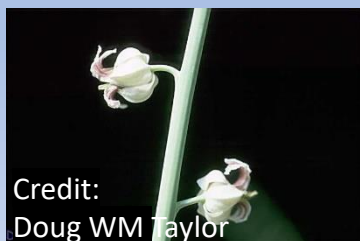
Credit:
Wikimedia Commons



Credit: Doug Wirtz



Credit: CDFW



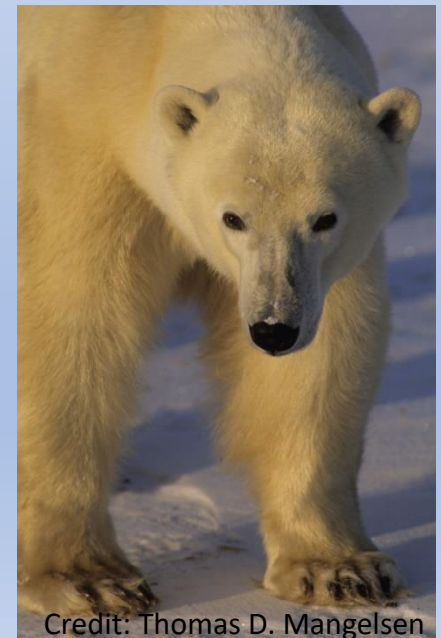
Credit:
Doug WM Taylor



Credit: WDFW



Credit: Dan W. Gotshall



Credit: Thomas D. Mangelsen

A WALL IN THE WILD

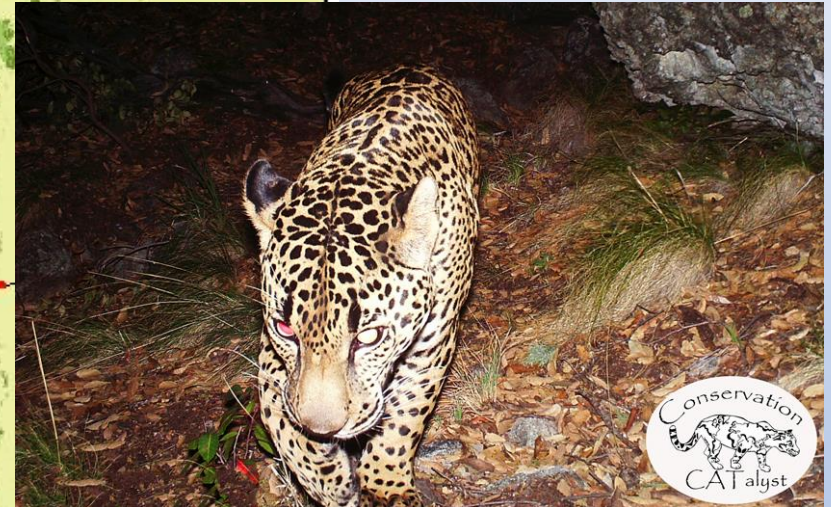
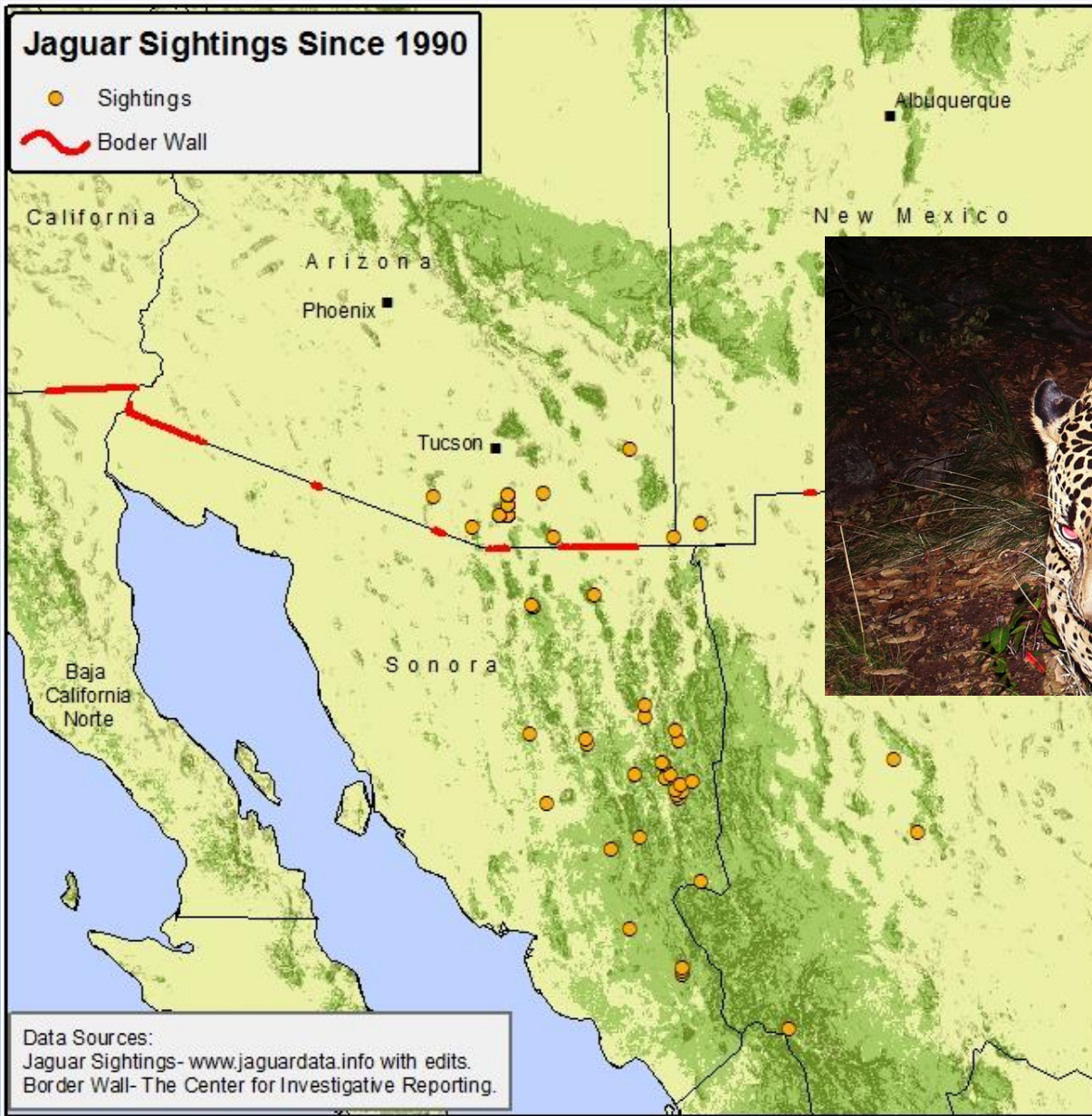
THE DISASTROUS IMPACTS OF TRUMP'S BORDER WALL ON WILDLIFE

Noah Greenwald, Brian Segee, Tierra Curry and Curt Bradley
Center for Biological Diversity, May 2017





- Arroyo toad
- Beautiful shiner
- Bighorn sheep (Peninsular Ranges DPS)
- Chiricahuau leopard frog
- Coastal CA gnatcatcher
- Huachuca water umbel
- Jaguar
- Least Bell's vireo
- Mexican spotted owl
- Northern Mexican gartersnake
- Otay tarplant
- Piersons milk vetch
- Piping plover
- Quino checkerspot butterfly
- Quitobaquito pupfish
- Riverside fairy shrimp
- San Bernardino springsnail
- San Diego fairy shrimp
- Sonora chub
- Spreading Navarretia
- Western snowy plover (Pacific DPS)
- Yaqui catfish
- Yaqui chub
- Yellow-billed cuckoo
- Zapata bladderpod





The Carrizo Plain
National Monument
“California’s Serengeti”

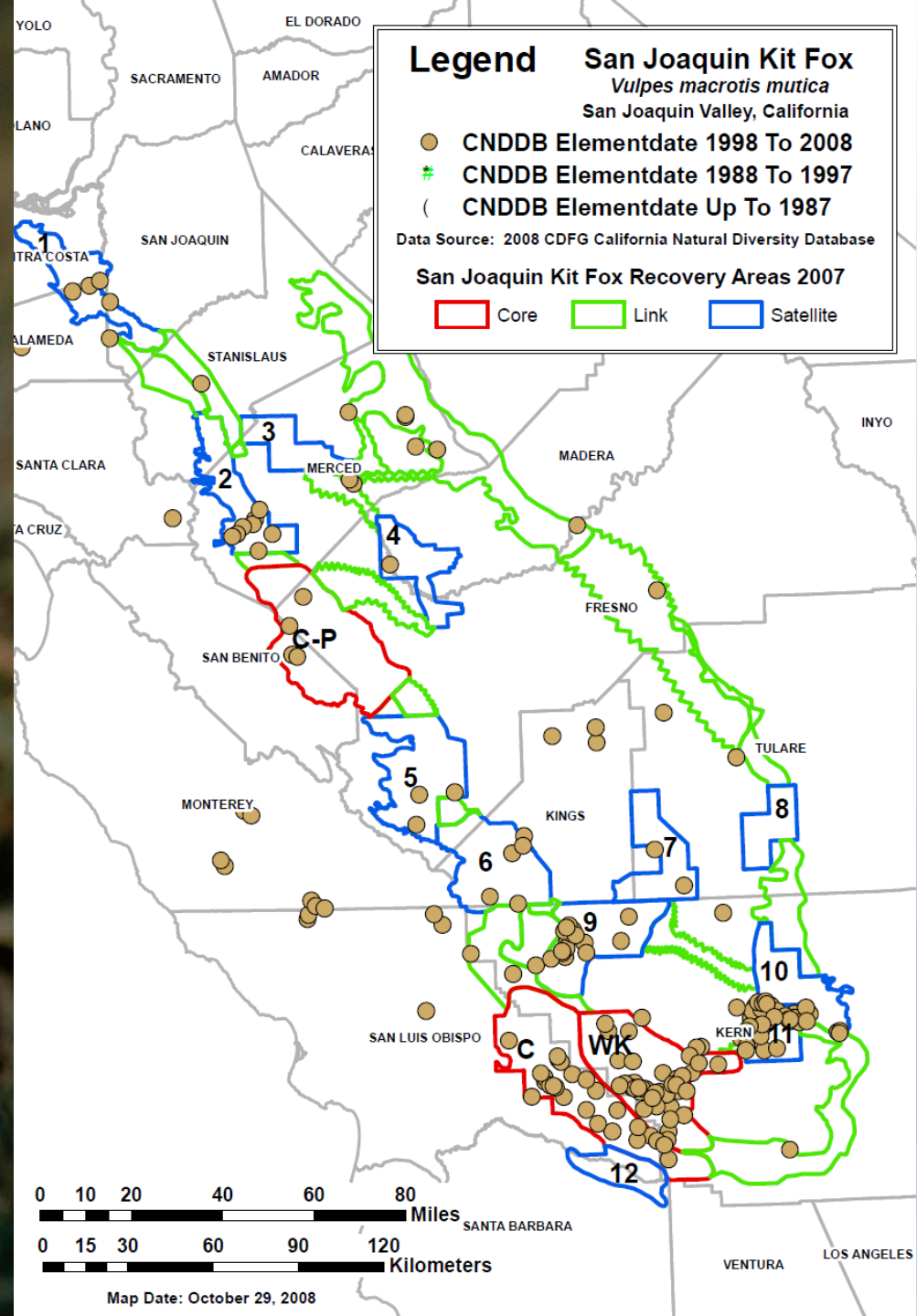
The Carrizo Plain: Regional and National Significant Area

- Declared a National Monument in 2001
 - San Joaquin Valley
 - 250,000 acres of unique landscape
 - Native wildflowers and grasslands, vernal pools, alkaline lake
 - > 100 protected animal and plant species
- Industrial solar project
 - Proposed 280-megawatt power plant
 - ~3,000 acre footprint
 - Failed to take into account protected species and critical habitat, which is illegal
- Coalition of environmental groups challenged this
 - CBD, Sierra Club, Defenders of Wildlife
- Changed the project to incorporate species protections

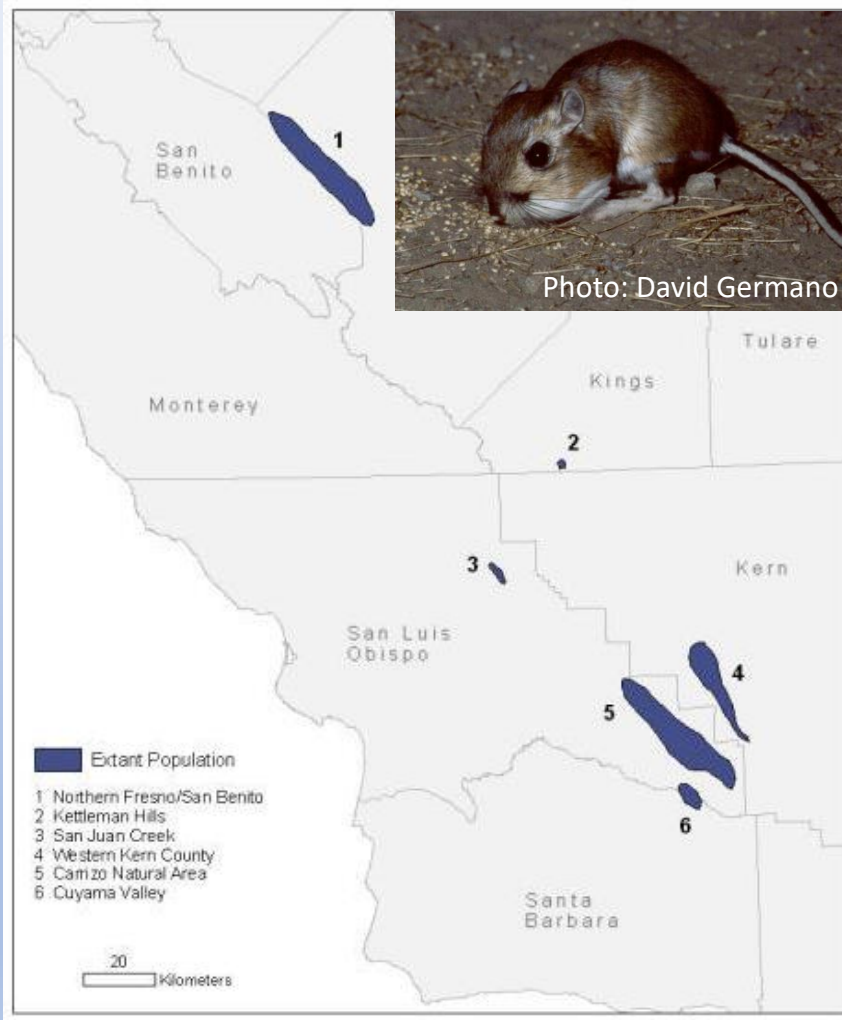
San Joaquin kit fox



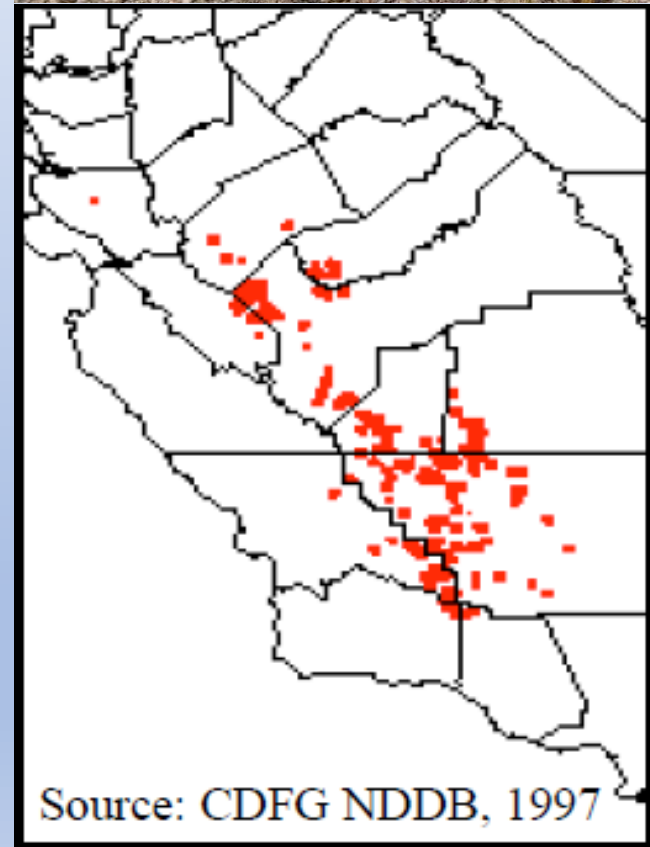
Credit: USFWS



Giant Kangaroo Rat



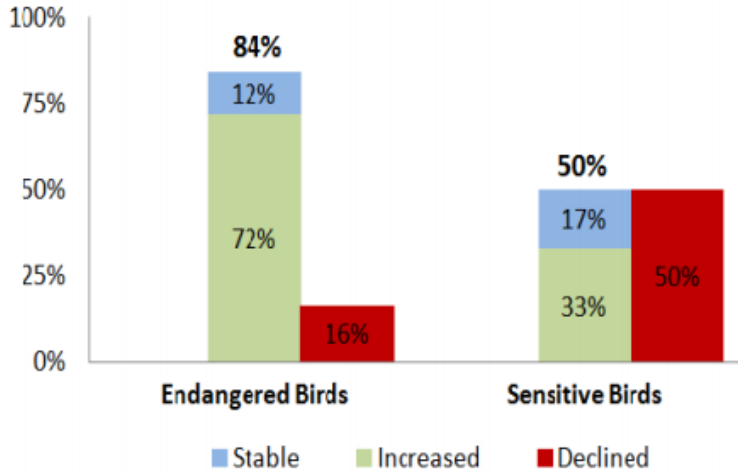
Blunt-nosed Leopard Lizard



Solar project moves forward with endangered species protections

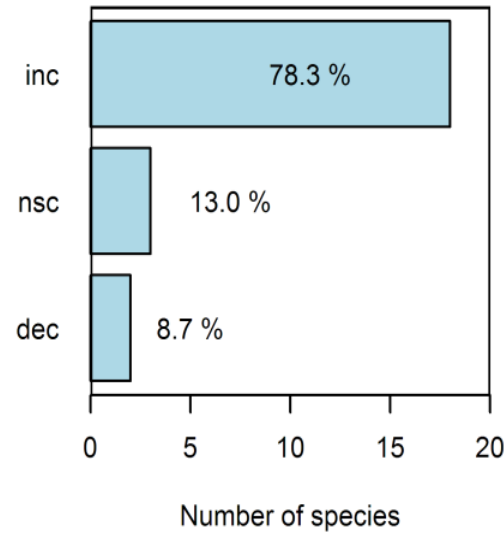
- Reduced footprint
- Improved project siting to avoid critical habitat
- 26,000 acres permanently protected
 - Conservation easements
 - Funds to acquire and manage undeveloped land
- Improve ability for wildlife movement
 - 30 miles fencing will be removed
 - Wildlife-friendly fencing installed near project
- Reduce poisoning
 - No rodenticides on project site
 - Funds to eliminate rodenticides in Carrizo Plain

Figure 8. Population Trend of Endangered vs. Sensitive But Unprotected Birds

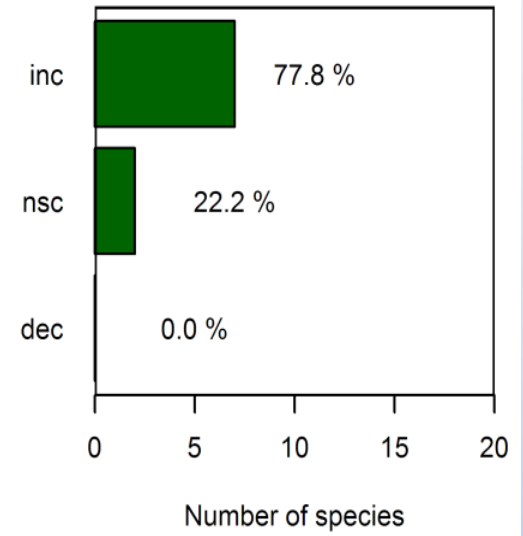


CBD 2016

A MARINE MAMMALS



SEA TURTLES



Valdivia et al, *in review*



Credit: The Peregrine Fund



Credit: NOAA



Credit: USFWS

Biodiversity data are paramount

- Basic natural history data – Insects!
 - Life history traits
 - Species distributions
 - Population trends
- Easier access to sensitive species data
 - CA – CNDDDB, access to entire database with subscription
- Effects of climate change – hub?
 - Less available on government sites
- Photos of species and habitats
- Role of citizen science – what are actionable steps we can take to increase use of these data?
 - Amateur naturalists
 - Volunteer scientists

Thank you!

tyap@biologicaldiversity.org

