# Update on CNLM-Managed Preserves in Carlsbad

Presentations by Preserve Managers: Brooke Prentice-Dekker, Stephen Rink, and Kathleen Balazs



## Outline

- Brooke Prentice-Dekker (7 mins)
  - Biomonitoring and Preserve Results
  - Erosion Issues
- Stephen Rink (5 mins)
  - Oak planting at Lake Calavera
  - La Costa Glen Preserve
- Kathleen Balazs (3 mins)
  - Restoration
  - Wildlife Monitoring
  - E-bikes and illegal trails



# Monitoring

- San Diego Thornmint
- Thread-leaved Brodiaea
- Coastal Sage Scrub
- Least Bell's Vireo
- Grasslands
- Orcutt's Hazardia
- Blochman's Dudleya
- Shot Hole Borer Surveys







# San Diego Thornmint

- Rainfall 4.85 inches
- Below Average Counts
- Rancho La Costa (329)
- Carlsbad Oaks North (13)
  - Outseed EFTS & EFTN
  - Uphill Outseed CON (34)





### Calavera Hills Robertson Ranch



- Grassland Transects
  - Village H North
  - Highest Percent Cover Native Grass and Forbs (14 years)
    - Sisbel, Stiplu, Calmac
- Restoration: 2000 Native Grasses Installed
- CSS Monitoring
  - Slight decreases



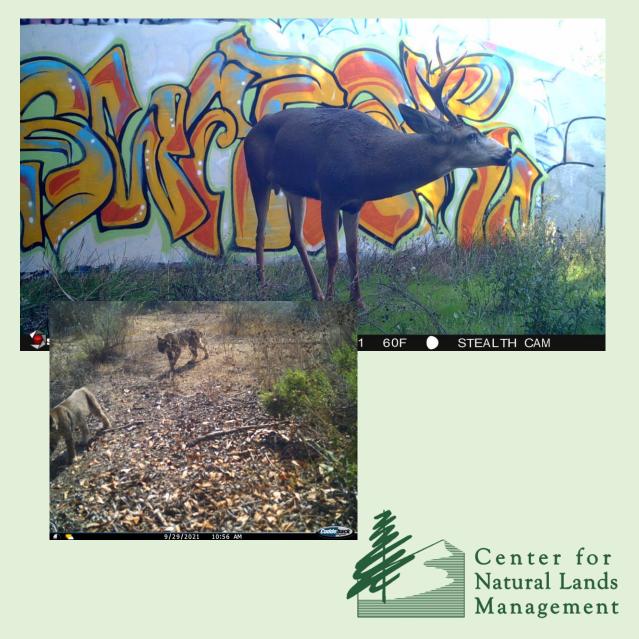
## **Buena Vista Creek Ecological Preserve**

- Thread-leaved Brodiaea
  - None Flowering except RLC
- Shot Hole Borer
  - None Detected
- Least Bell's Vireo
  - 5 males
- Knoll Enhancement



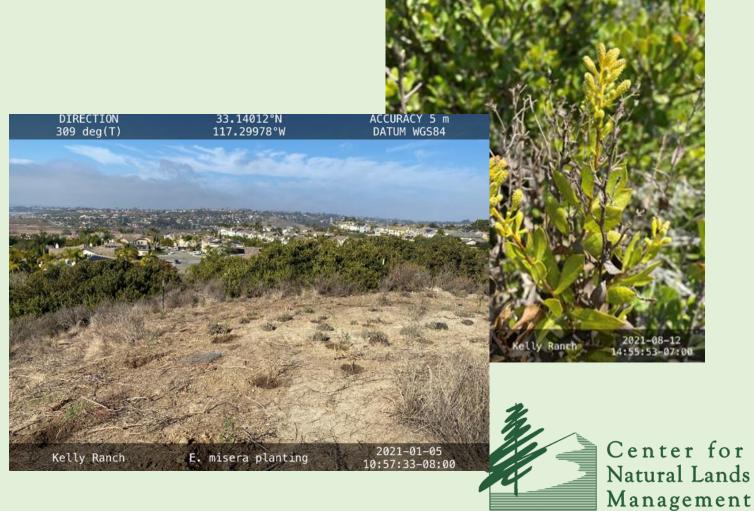
## Carlsbad Oaks North

- Blochman's Dudleya
  - 9 Veg (4 flowering outside)
- Coast Live Oaks
  - GSOB
  - Aerial Imagery
- Wildlife Movement
- Oakmont
  - Old Growth Chapparal (0.23 acres)
  - 5 Year Restoration Plan



# Kelly Ranch

- Orcutt's Hazardia
  - Declines (Adults Stable)
- Euphorbia Misera Planting
  - (~99% surivorship)
- Erosion...



33.14347°N 117.30483°W

CCURACY

DATUM

DIRECTION

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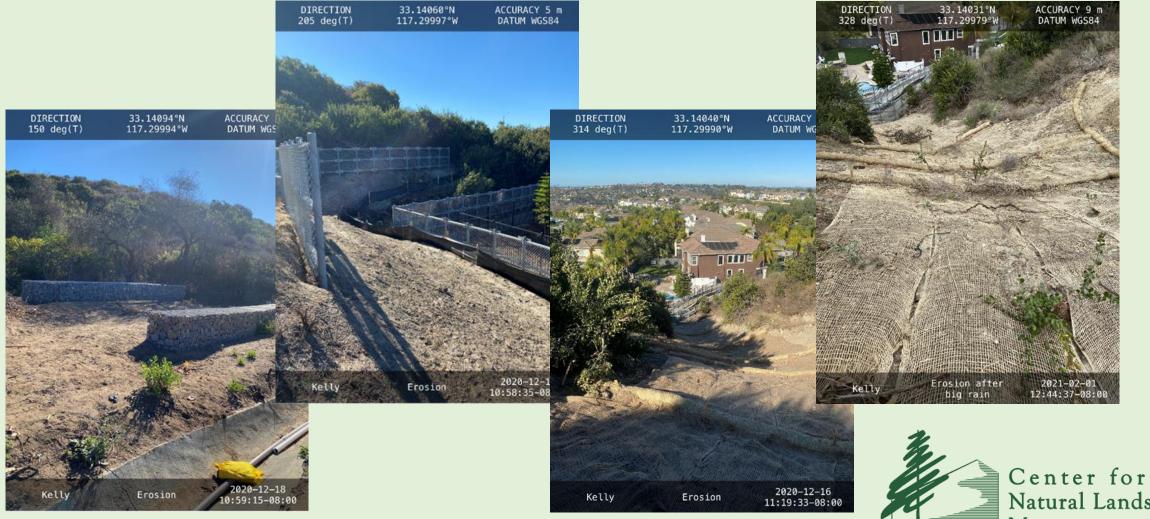
#### Erosion



- Heavy Rainfall April 2020
- Erosion Throughout SD
- Approximately 10 slumps KR
- Multiple Tons of Debris
- Work through Spring 2021



## Erosion



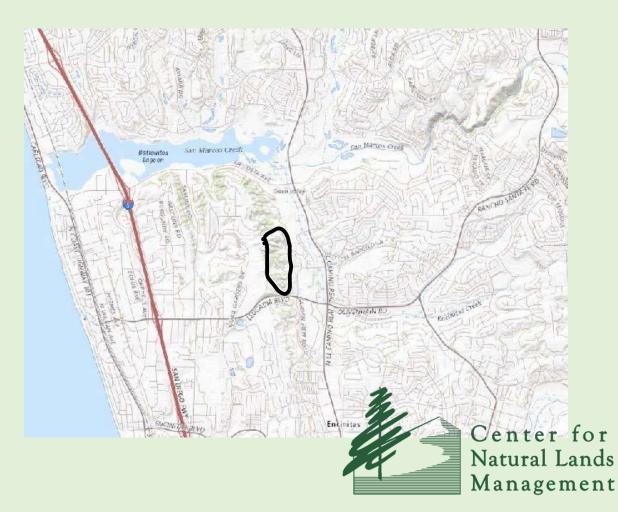
Natural Lands Management

# La Costa Glen Preserve



#### **Preserve History**

- The La Costa Glen Preserve was set aside as mitigation for the Continuing Life Communities development. In total, 104 acres was protected
- CNLM began management in January 2013



# **General Physiography**

- The Preserve is generally east facing with the high elevation to the west and low elevation is to the east. The site is characterized as having steep bluffs to the west and heavily vegetated and undulating lands to the east.
- The primary soils on site are mapped as Rough Broken Land and subclassified as Torrey Sandstone Marine deposits in the upper elevations and alluvium underlaying the lower elevations of the site. Some smaller flatter areas are mapped as Corralitos loamy sand





#### **Vegetation and Sensitive Plant Species**

- The Preserve is comprise primarily of Southern Maritime Chaparral and to a lesser degree, Diegan Coastal Sage Scrub, and Southern Willow Scrub
- Sensitive and Rare Plant Species
  - California Adolphia (Adolphia californica)
  - Western Dichondra (Dichondra occidentalis)
  - Summer Holly (Comarostaphylis diversifolia)
  - Del Mar Manzanita (Arctostaphylos glandulosa ssp. Crassifolia)





## **Additional Sensitive Plant Species**

- wart stemmed ceanothus (Ceanothus verucosus)
- Nuttall's scrub oak (Quercus dumosa)
- prostrate spineflower (Chorizanthe procumbens)
- Seaside calandrinia (*Cistanthe maritima*)
- white morphology of the California Wishbone (*Mirabilis laevis*)







# **Animal Species**

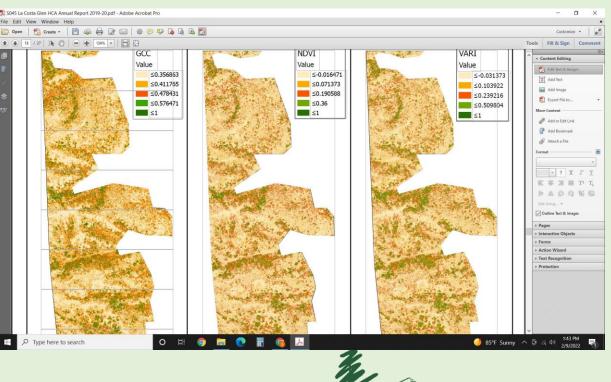
- California Gnatchatcher (*Polioptila californica californica*)
- orange-throated whiptail (Cnemidophorus hyperythrus beldingi)
- Cooper's hawk (Accipter cooperii)
- Southern California rufouscrowned sparrow (Aimophila ruficeps canescens)
- Southern Mule Deer (*Odocoileus hemionus fugilatus*





# Monitoring

- Vegetation community assessments using aerial imagery assessments
- CAGN surveys
- Nuttall's Scrub Oak, Wart-stemmed Ceanothus, DMM, Summer Holly health assessments
- Wildlife movement
- San Diego Horned Lizard and Argentine ant threat assessments





# Threats

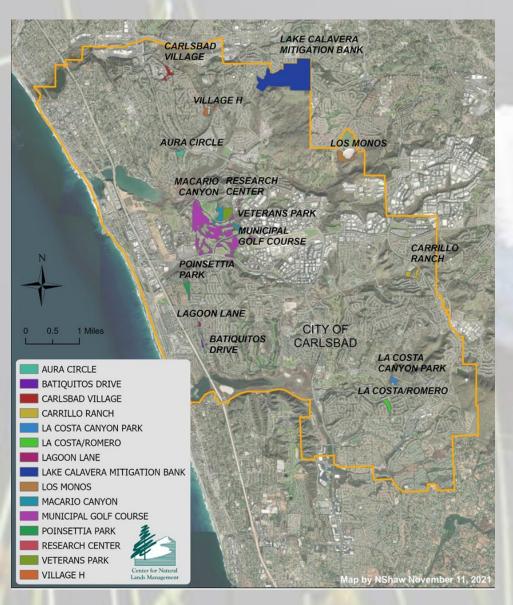
- Habitat fragmentation
- Trespass, BMX tracks
- Encampments/Trash
- Altered fire frequencies
- Climate Change
  - Tilt competition toward nonnative species







#### Preserves CNLM Manages Owned by City of Carlsbad





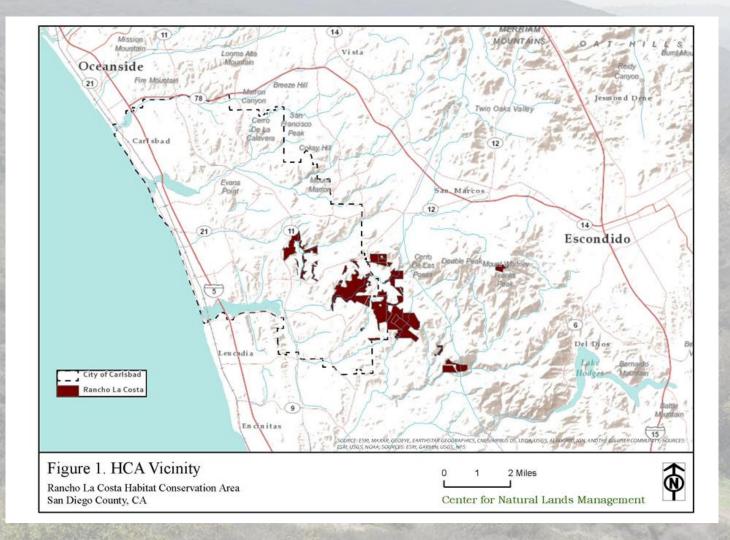
#### Oak Planting at Lake Calavera







#### Rancho La Costa





#### Habitat Restoration



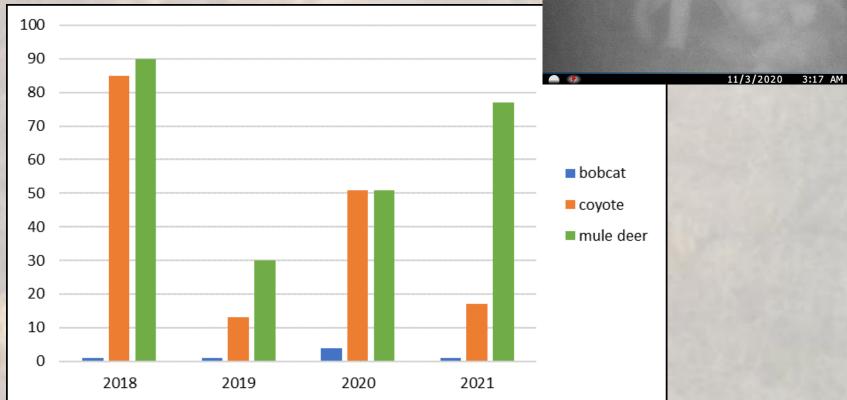


#### Habitat Restoration



#### Wildlife Monitoring







## Rancho La Costa – E-bike and Illegal Trail Issues





#### Rancho La Costa – E-bike and Illegal Trail Issues





#### **Future Plans**

- Bird monitoring
  - CAGN, SWFL, LBVI
- Invasive Species Removal
- Continued SDTM Enhancement
- Clay Lens Assessments
- CNPS Releves
- Restoration via Planting
- Sensitive Shrub Monitoring
- Bat Surveys
- Vegetation Mapping
- Pollinations Studies
- San Diego Horned Lizard and Ant Surveys

