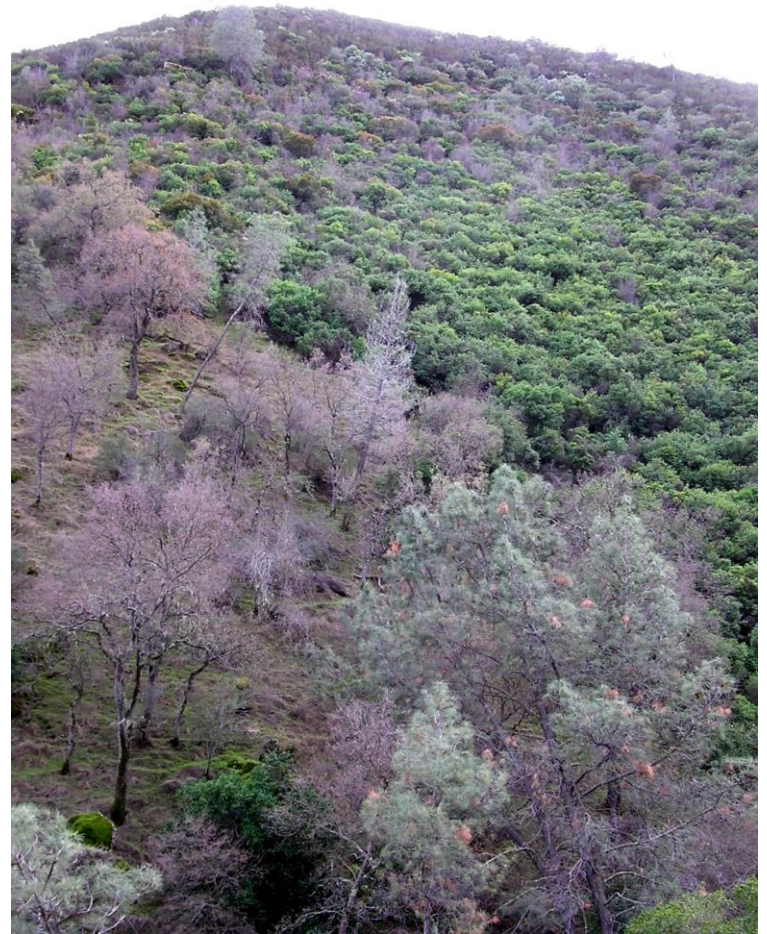


Uses and Abuses of Vegetation Data

The Vegetation Classification and Mapping Program

Making sense of the complex arrangement of plants communities in California's landscape through standardized classification and mapping



<https://wildlife.ca.gov/Data/VegCAMP>

Current Vegetation Maps



CVAG



CALIFORNIA
NATIVE PLANT
SOCIETY

Funding Source

- State
- Federal
- Local
- Nonprofit



CALIFORNIA
STRATEGIC
GROWTH
COUNCIL

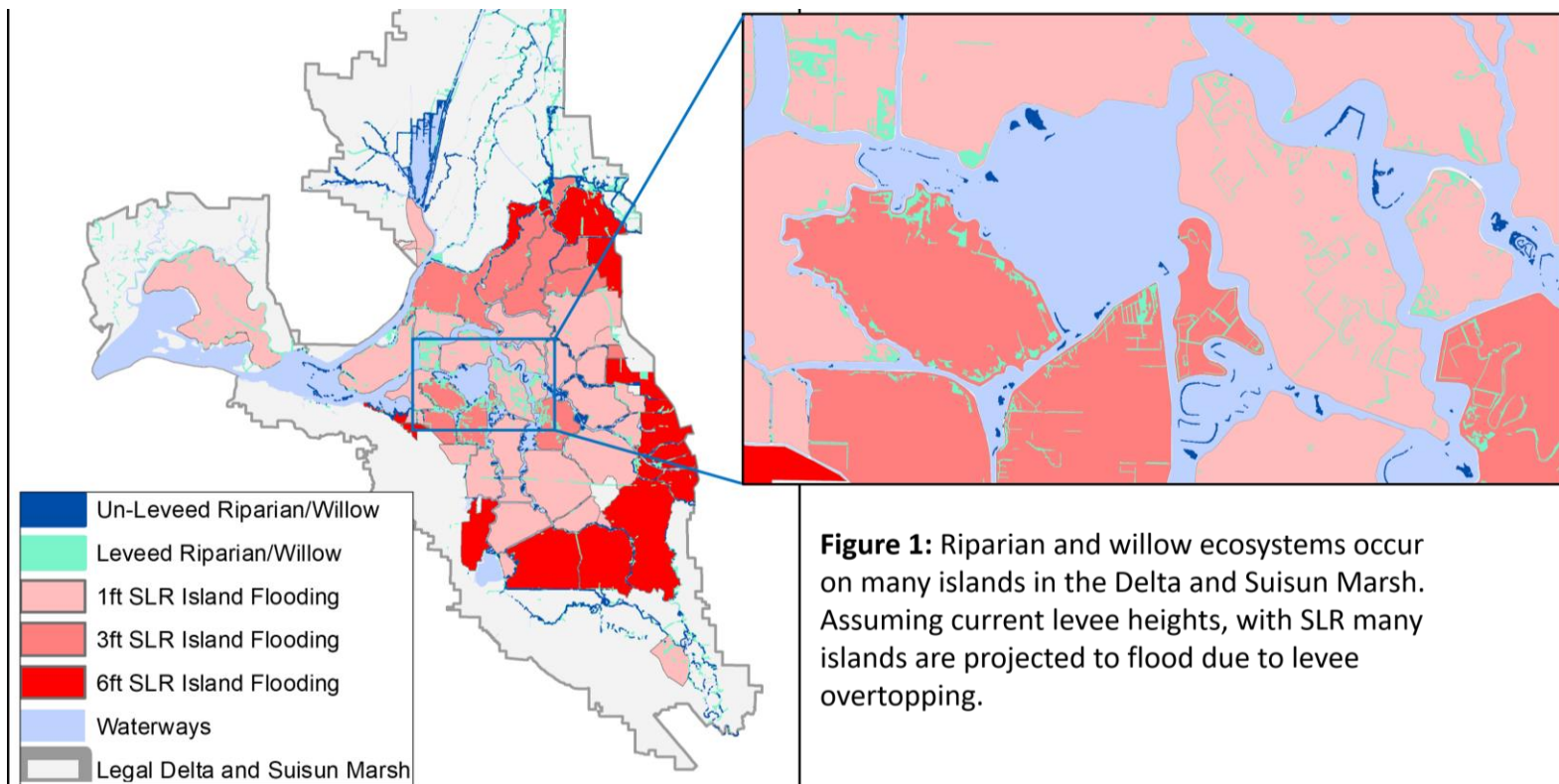


The Nature
Conservancy
Protecting nature. Preserving life.

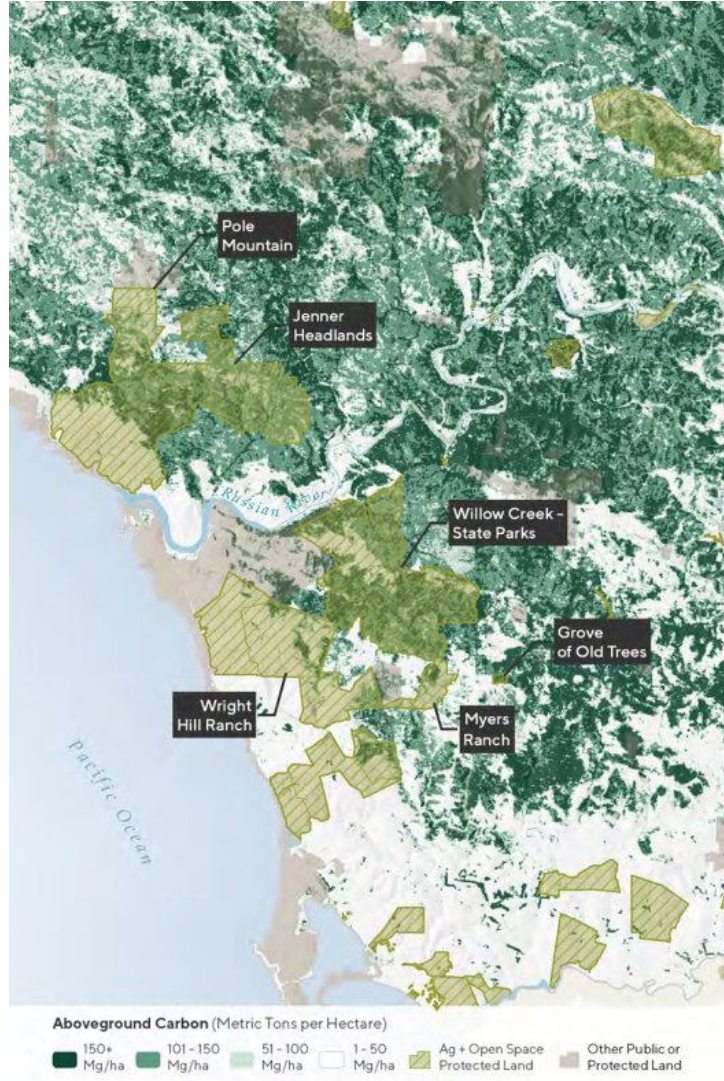


Some Things Vegetation Maps Can Help Answer

- How much of each kind of vegetation is there?
- What are the rarest and most common types?
- Where exactly are they?
- How do these vegetation types overlap with human needs and existing infrastructure?
- Where are the best places to hunt for pigs based on structural information (actual use in Napa Co.)?
- Where are the most likely places to reduce fuel loads?
- **Bureau of Land Management post-fire ESR (Emergency Stabilization and Rehabilitation). Andrew Johnson from BLM will do a follow-up presentation on this.**
- Where are the best habitats for certain species?



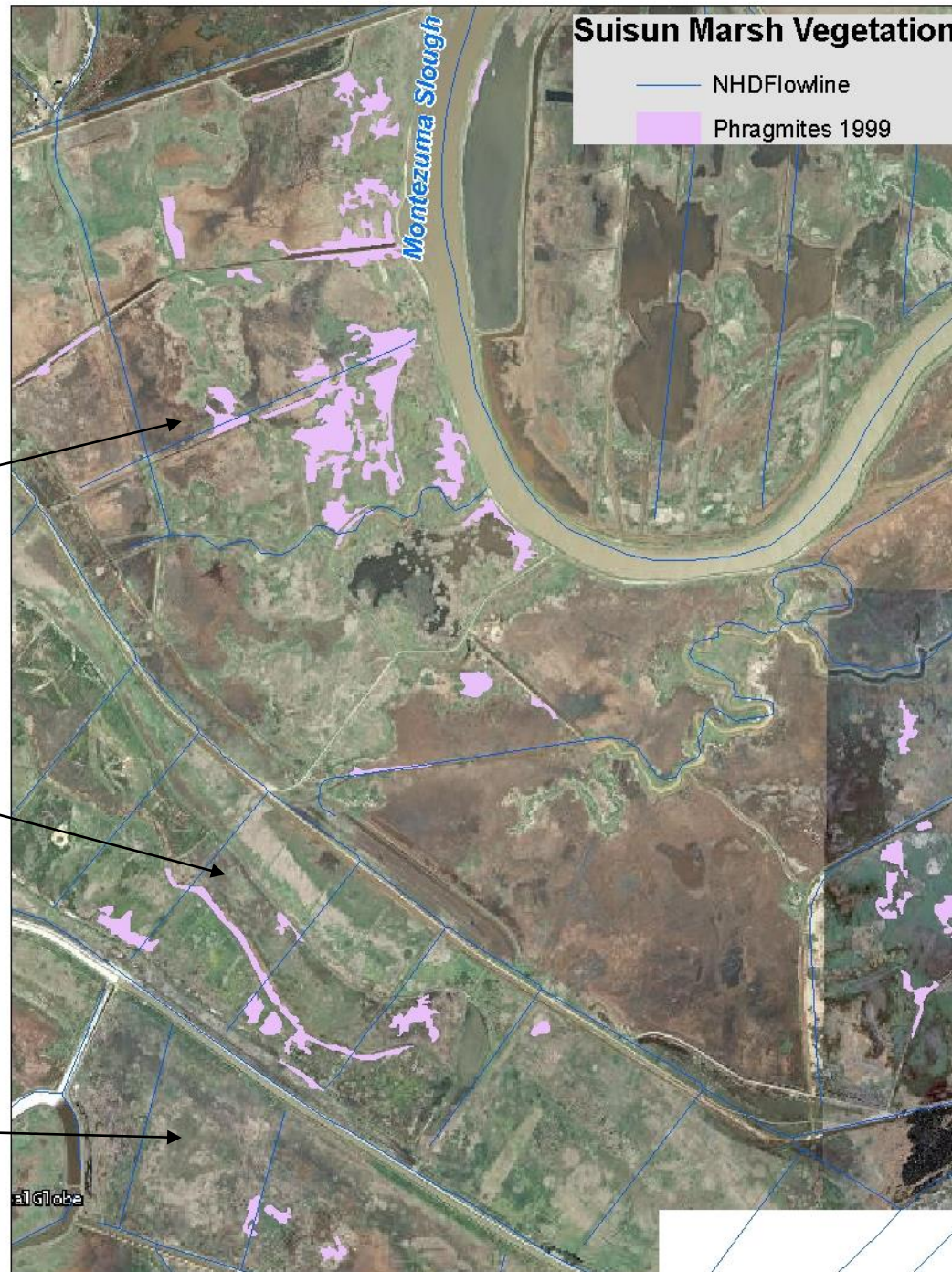
ASSESSING CLIMATE CHANGE



CONSERVATION BASED ON CARBON SEQUESTRATION

Suisun Marsh Vegetation

- NHDFlowline
- Phragmites 1999



- Managed with fire and altered flooding
- Not actively managed
- Managed with fire and altered flooding



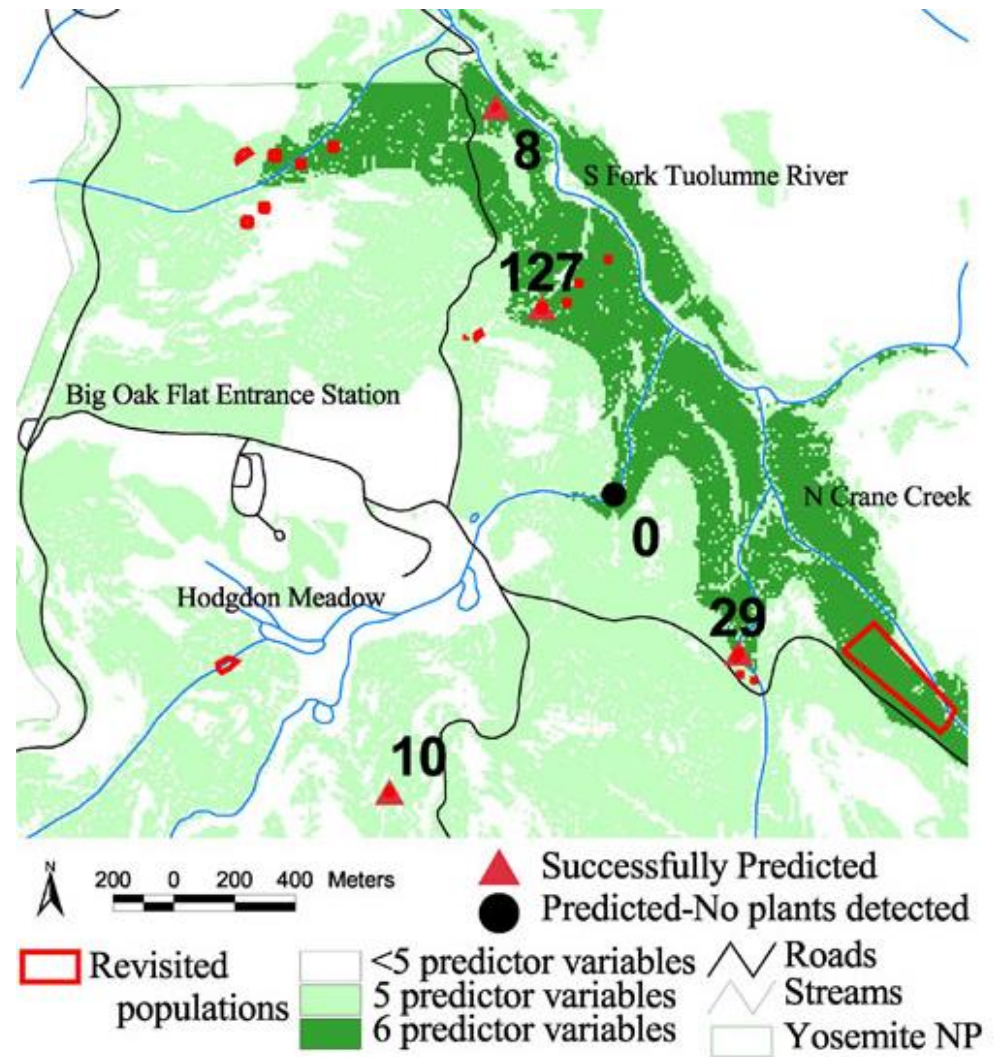
Mountain lady's slipper
(*Cypripedium montanum*)

Habitat

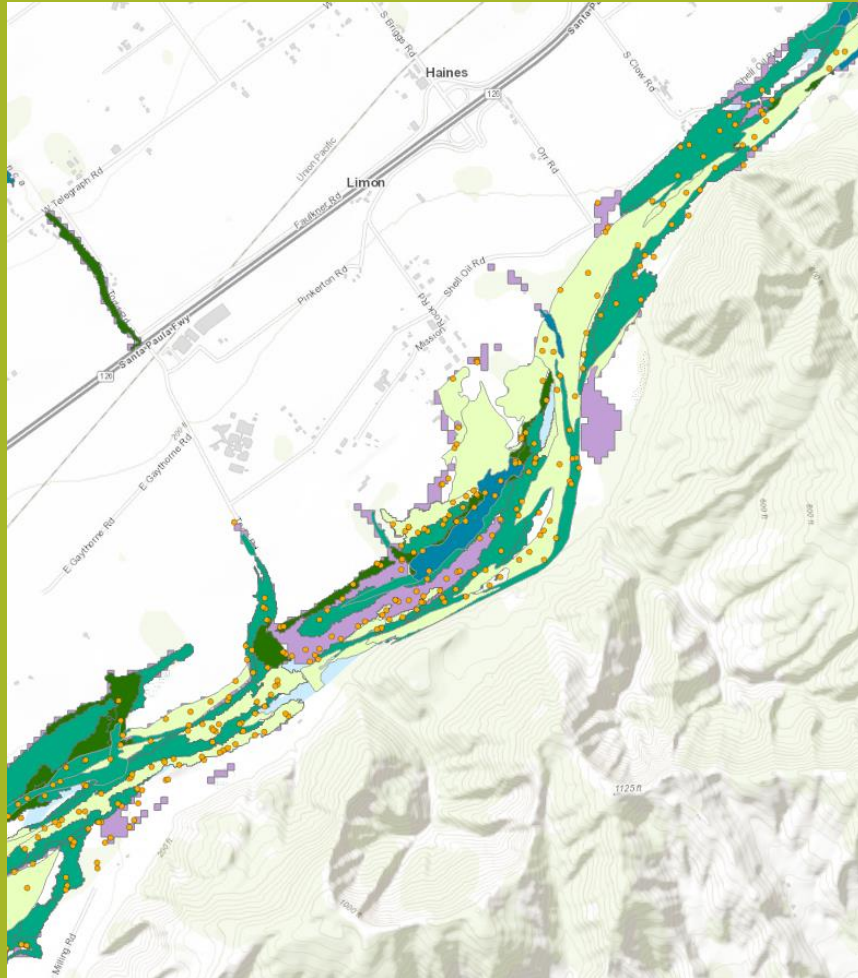
- Long-lived perennial
- CNPS list 4.2
- From 8 known sites with plants present
 - Elevation: 1150-1375 m
 - Geology: 96% granodiorite
 - Fire history: 98% unburned
 - Vegetation: 83% Douglas-fir – Ponderosa Pine – Incense-cedar Association (fully to partially shaded)

Verification: mountain lady's slipper

- Randomly selected 16 verification sites
- Found orchids at 7 sites
- 44% success in locating occupied habitat
- Increased # known populations by 58%



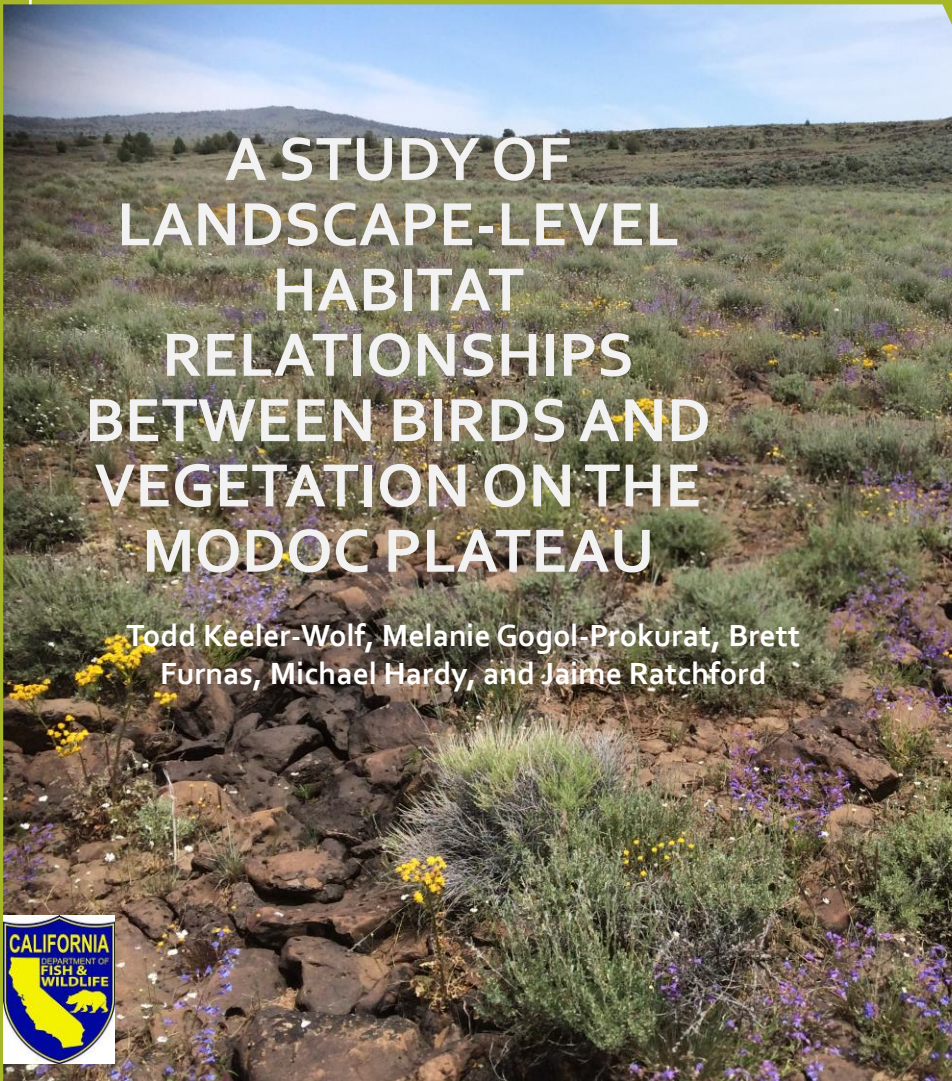
Least Bell's Vireo Habitat



Conservation Science and Data Visualization, LLC recently compiled riparian vegetation from Survey of California compliant maps in riparian areas from a large number of discrete mapping efforts (covering a large range of years). This information was used to illustrate the broad spatial extent of vireo nesting habitat and has been used to prepare a proposal to re-map vireo nesting habitat across their entire geographic range in California using 2020 NAIP photography.




<http://blackfoot.net/~larkwick/LeastBellsVireos.html>



A STUDY OF LANDSCAPE-LEVEL HABITAT RELATIONSHIPS BETWEEN BIRDS AND VEGETATION ON THE MODOC PLATEAU

Todd Keeler-Wolf, Melanie Gogol-Prokurat, Brett
Furnas, Michael Hardy, and Jaime Ratchford

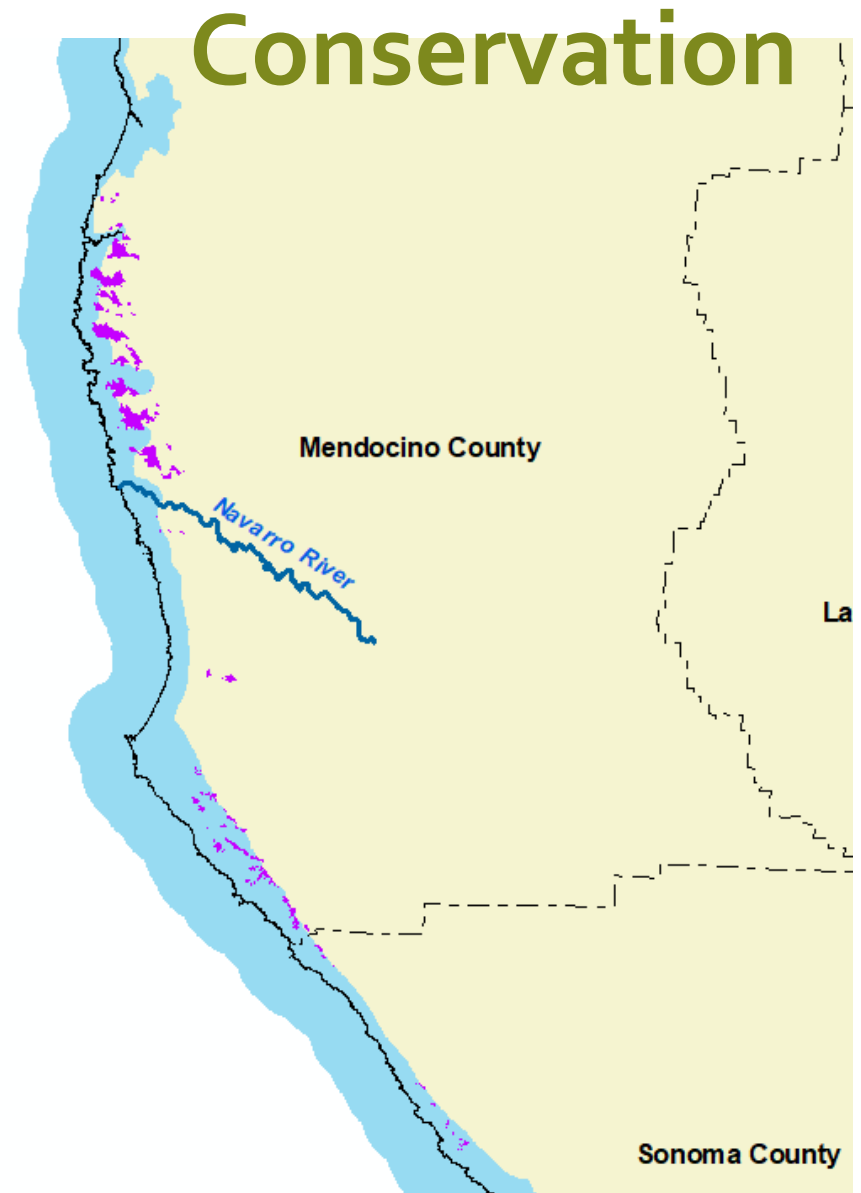


Coming soon!



Mendocino Cypress Pre-map Challenges

- Environmental Sensitive Habitat Area (ESHA) within coastal zone
 - North of Navarro River only
 - Approximately 70% is outside the coastal zone
- Ministerial permits (ex: 3-acre conversion), absence of County ordinances
 - CEQA process often begins after clearing, but before building
- Rare plants (CEQA), but few listed species (CESA not triggered)



Source: Jennifer Garrison, CDFW



Post-map progress:

- Environmental Sensitive Habitat Area (ESHA) within coastal zone
 - CDFW worked to get ESHA protections south of Navarro River based on rare Bishop pine associations
- Jennifer Garrison is drafting a Conceptual Area Protection Plan (CAPP) as a way to prioritize areas for acquisition, or conservation easements funded by Prop. 68 funds.
- Map can be used to update the General Plan to include inland protections.
- In 2019, CDFW announced an award of 347,843\$ to the Mendocino Land Trust to acquire an easement, and the landowner (Harvest Market) gave the sum back to the trust to create an endowment to manage it!



AND NOW FOR THE ABUSES....

(bad assumptions, actually)



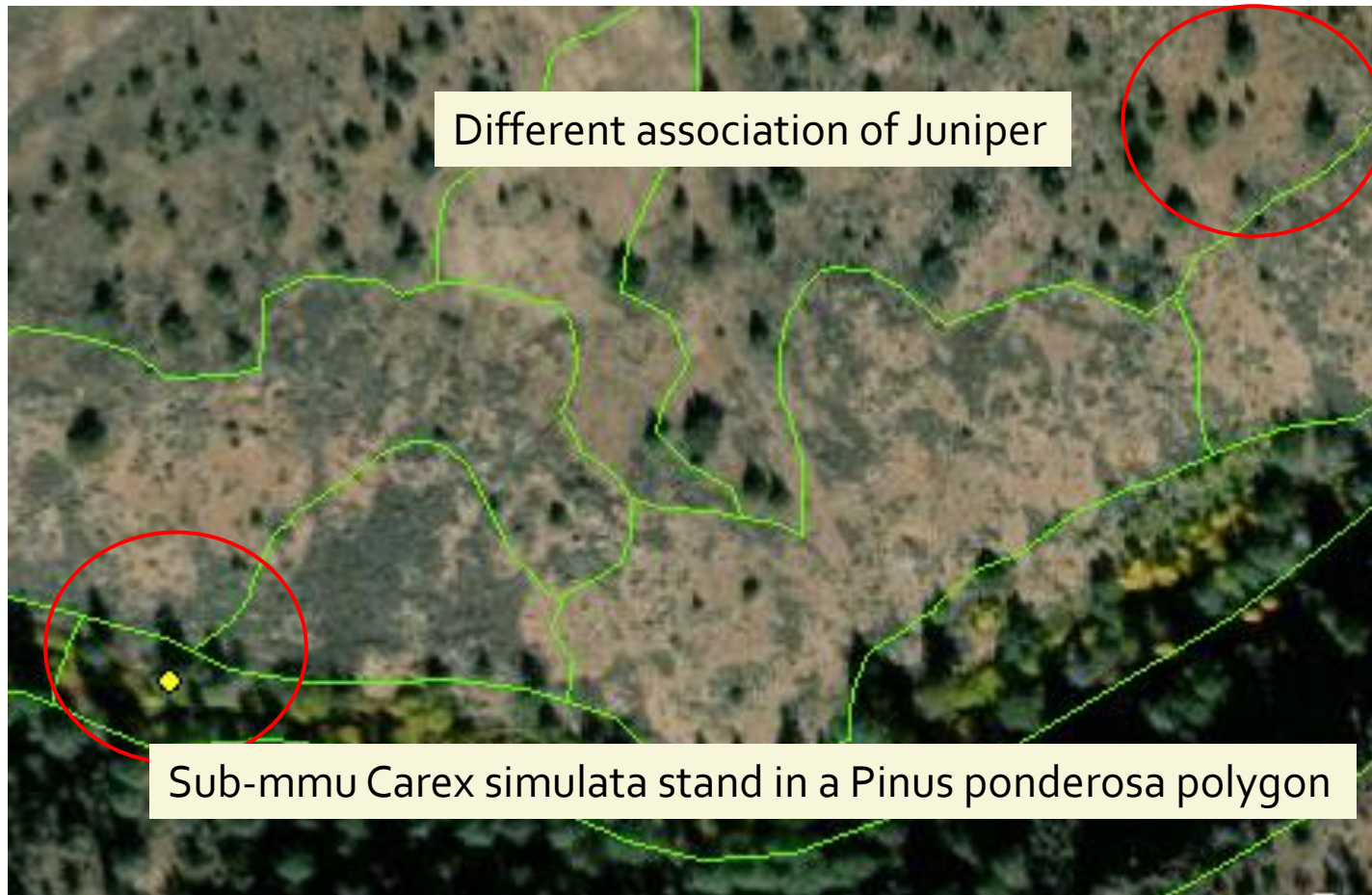
Classification level assumptions

The Modoc mapping effort includes polygons mapped at the Association, Alliance, and Group level, so you can't assume that because you have queried an association, that you have all the polygons that potentially are that association.

Discerning associations on aerial imagery is not always possible because of phenology, overstory, and matrixing.

HETEROGENEITY AND MINIMUM MAPPING UNIT (MMU)

The minimum mapping unit for the Modoc/Lassen map is 1 acre for most types, but 0.5 acres for wetlands, riparian, vernal pool and special types. Breaks based on cover of the dominant layer is 5 acres. Sometimes there are small stands within polygons.



Cro

We h
cross



Identify from:

☐ SurveyPoints_AllFields
35

Location:

Field	Value
FieldAssociation	Artemisia arbuscula
FieldMapCode	<null>
UTM_E	719663
UTM_N	4503576
UTM_Zone	10
ErrorMeasurement	1.5
ErrorUnits	PDOP
Location_name	Shinn
ID_Loc_ckd	
Elevation_m	1670
PHOTO	/photoApp/Default.aspx?appId=2&s
ConCov	5
HdwdCov	0
TreeCov	<null>
RegenTreeCov	1
ShrubCov	13
HerbCov	7

ave over 10% absolute cover and 1000 represents
over 75% of the conifer cover.

These maps are perfect (not)

- Pay attention to the accuracy assessment results (by class) and decide what certainty you require in your use. Adding the survey data [ds1020] to your mapping/analysis can be useful because these are ground based assessments.
- An interim AA result table is an appendix to the survey and classification report. This will be replaced with the final results in a separate mapping report when the AA for the second areas GIC mapped is complete.
- The overall accuracy for Vegetation - Modoc Plateau - Shinn, Likely, and Snowstorm Mountains - 2020 [ds2877] is below our minimum standard at the association level (71% users/80% producers), so the **recommended level to use this map at is NVCS Alliance level (82%/87%).**
- The overall accuracy for Modoc Plateau Applegate areas - 2016 [ds2858] (93% users, 93% producer's) meets the minimum standards. Adjustments to this map will also be made after the 2nd area that includes Eagle Lake are completed. The map classes for this map are a combination of alliance and association.



In summary:

- Be creative and use this tool to learn more about the land you help manage.
- Know what the limitations of the data are and survey for a more complete understanding when necessary.