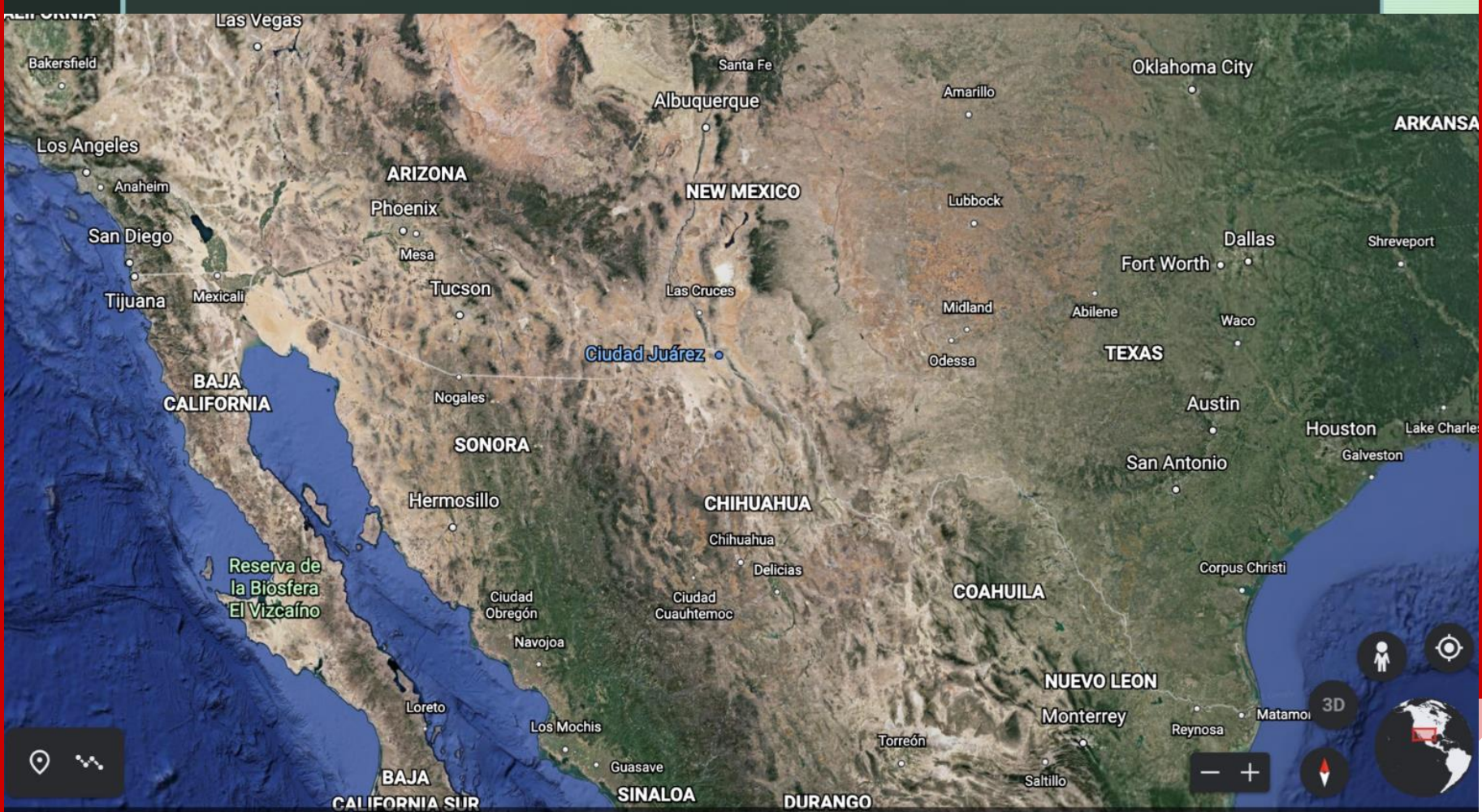




Building Community Through In-Person Education and Outreach Programs at Jasper Ridge Biological

Jorge Ramos, Ph.D.
Executive Director
Associate Director for Environmental Education
Jasper Ridge Biological Preserve
Stanford University

2022 California Naturalist Conference



Las Vegas

Bakersfield

Los Angeles

Anaheim

San Diego

Tijuana

Mexicali

BAJA CALIFORNIA

Reserva de la Biosfera El Vizcaíno

BAJA CALIFORNIA SUR

ARIZONA

Phoenix

Mesa

Tucson

Nogales

SONORA

Hermosillo

Los Mochis

Guasave

SINALOA

DURANGO

Santa Fe

Albuquerque

NEW MEXICO

Las Cruces

Ciudad Juárez

Amarillo

Lubbock

Midland

Odessa

TEXAS

Oklahoma City

Fort Worth

Dallas

Waco

Austin

San Antonio

Houston

Lake Charles

Galveston

Corpus Christi

Matamor

Reynosa

Monterrey

Saltillo

Torreón

Chihuahua

Delicias

CHIHUAHUA

Ciudad Obregón

Navojoa

COAHUILA

NUEVO LEON



Jorge's high school

Jorge's house



Ciudad Juarez, Mexico

Ciudad Juárez



BAY NATURE

Essays

Y tú, de dónde eres?

*After re-learning natural history, an ecologist returns home --
and sees something new*

by *Jorge Ramos*

August 19, 2020

**Learning natural history with
Dr. Rodolfo Dirzo**



Our Mission and Values

JASPER RIDGE BIOLOGICAL PRESERVE



Bent-flowered fiddlenecks (Amsinckia lunaris), a plant rare in California but found at Jasper Ridge. Photo: JRBP Staff

Land Acknowledgement

We recognize that Jasper Ridge Biological Preserve sits on the ancestral land of the Muwekma Ohlone Tribe. This land was and continues to be of great importance to the Ohlone people. Consistent with our values of community and inclusion, we have a responsibility to acknowledge, honor, and make visible the University's relationship to Native peoples.

This acknowledgment has been developed in collaboration with the Muwekma Ohlone Tribe. A longer version of the Land Acknowledgement for Stanford University authored by the Muwekma Ohlone tribe is posted inside Leslie Shao-ming Sun Field Station.

Mission

To contribute to the understanding of the Earth's natural systems through research, education, and protection of the preserve's resources.

Vision

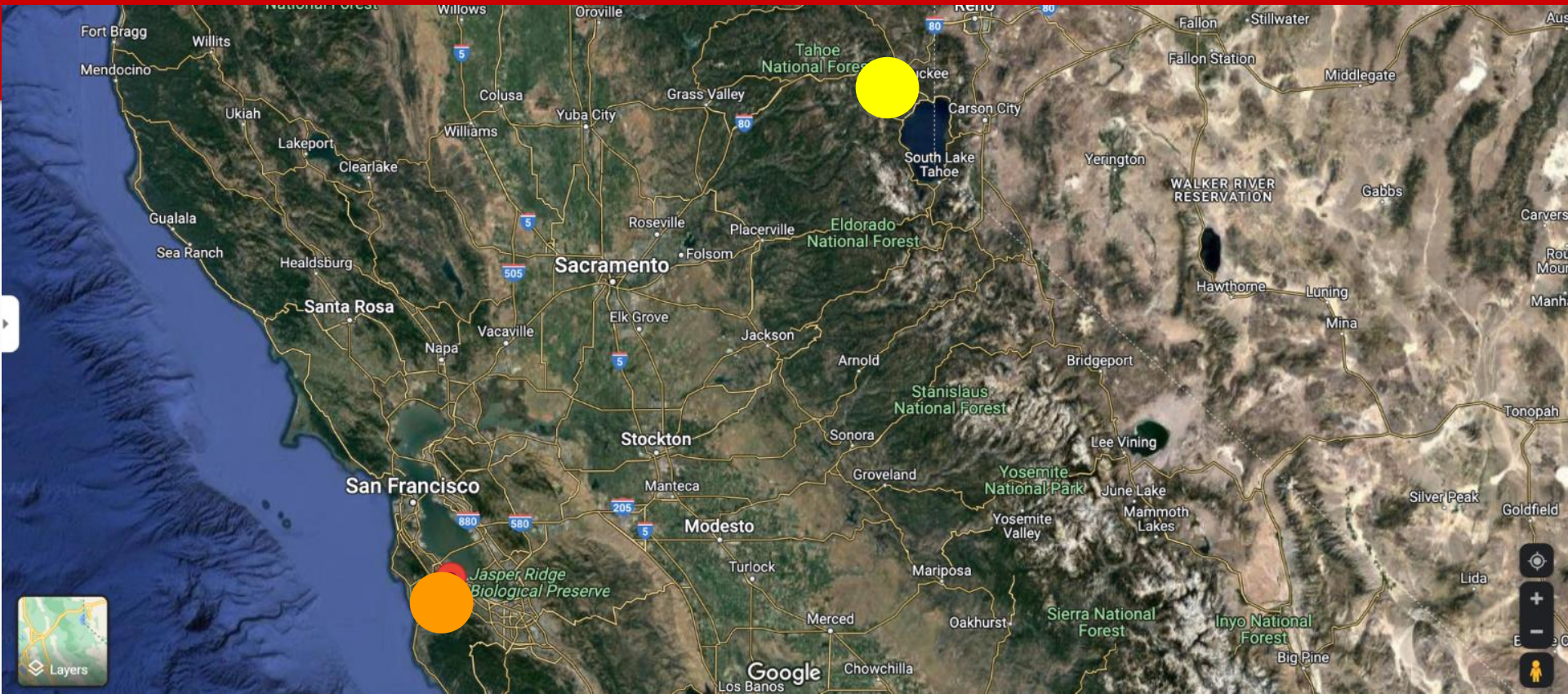
To be a leader for innovation in research, education, and communication on natural systems, through providing an interdisciplinary, cross-cultural, and place-based training ground for effective Earth stewardship by our community and the next generations of global leaders.

Pledge

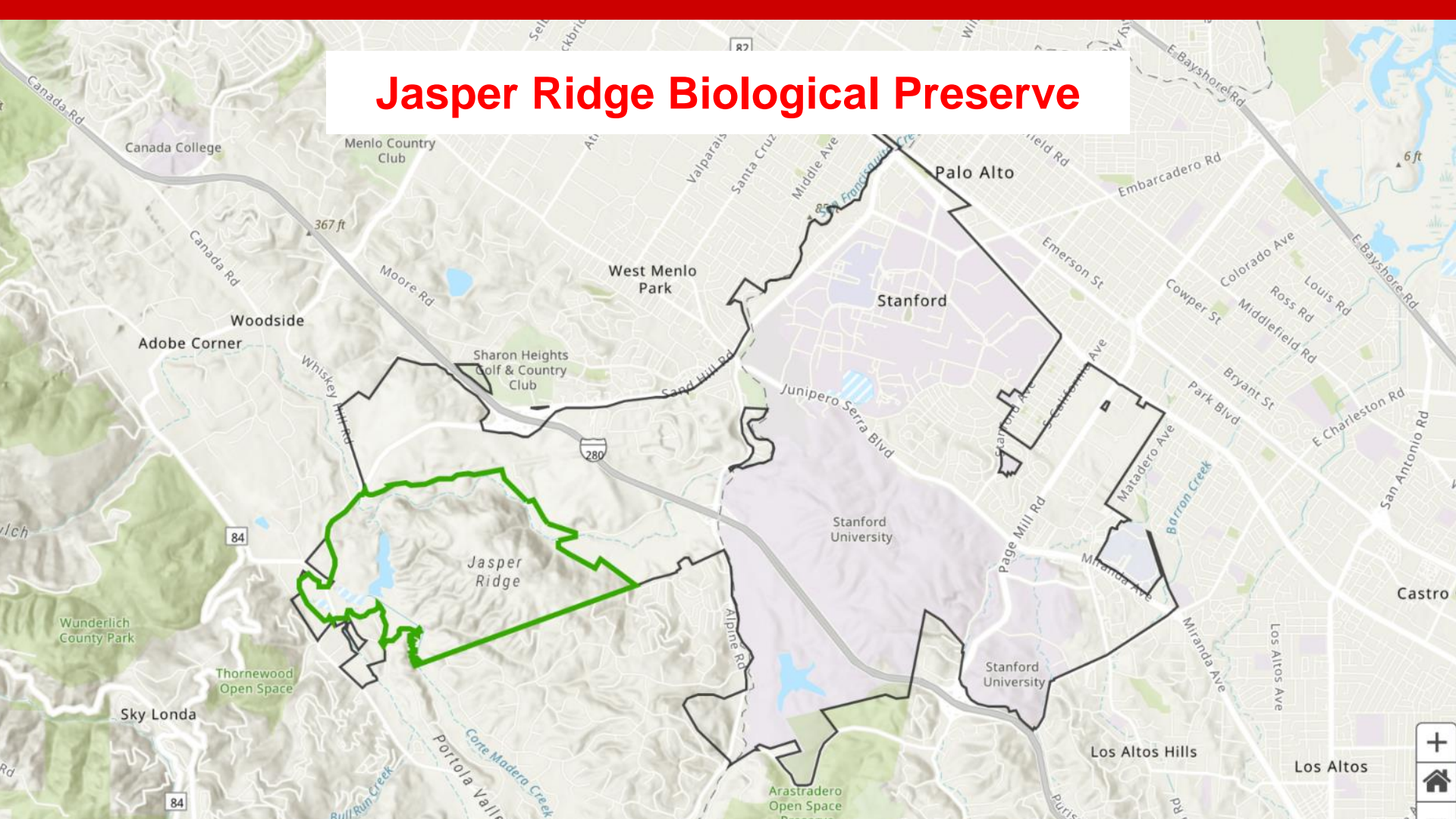
To be a safe and welcoming place for discovery, discussion, and community for people of all cultures and identities.



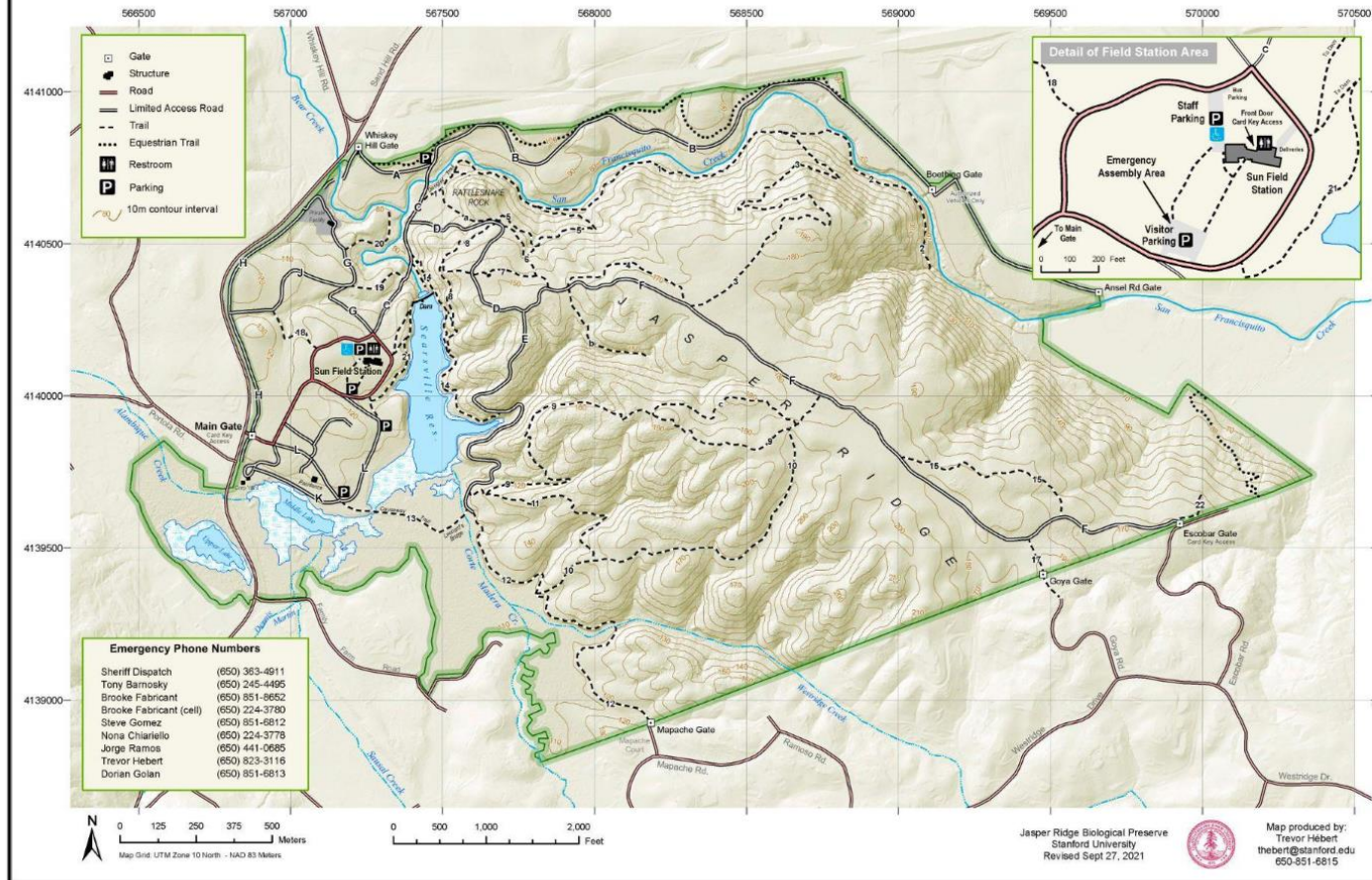
Jasper Ridge Biological Preserve



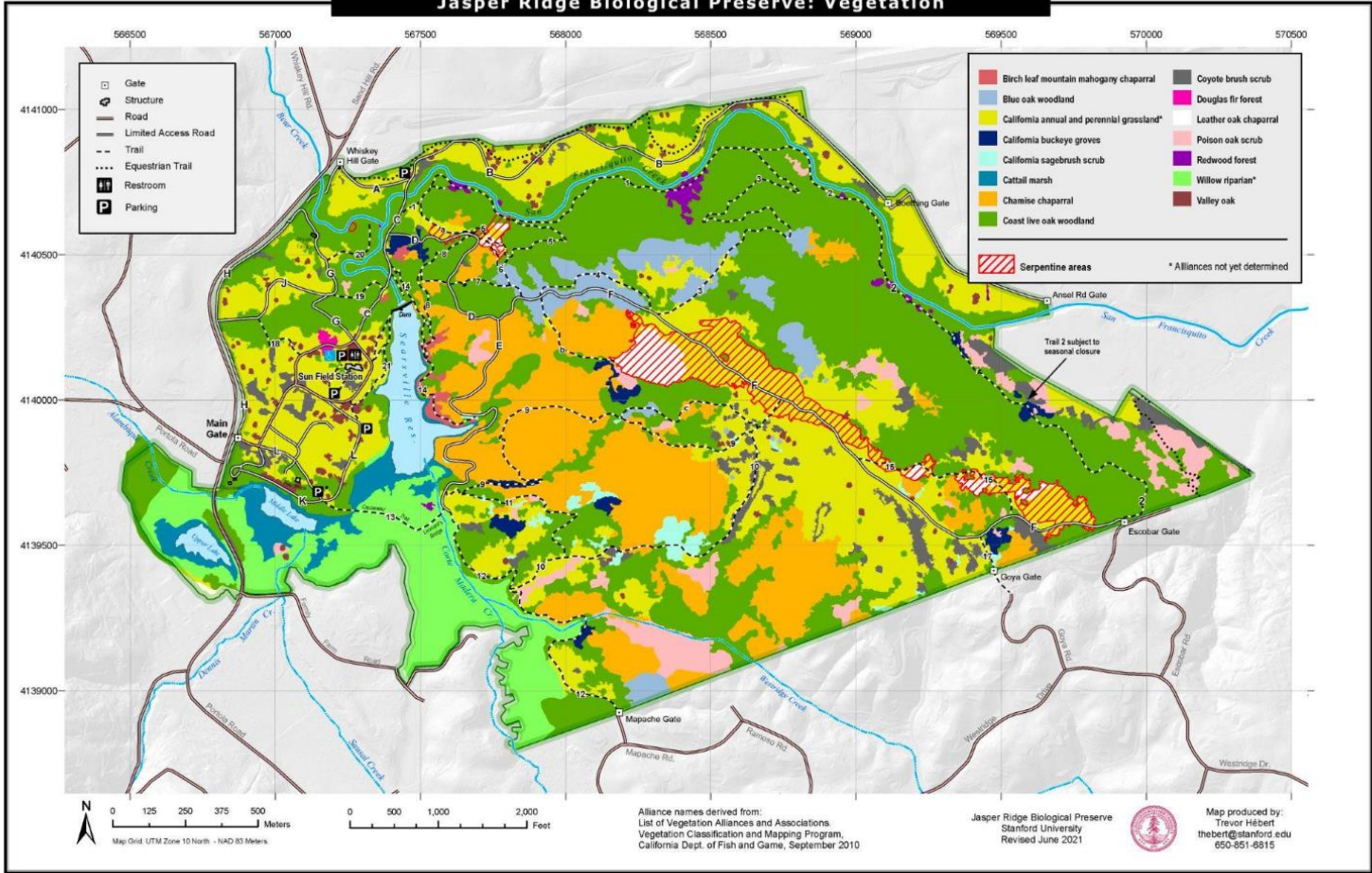
Jasper Ridge Biological Preserve



Jasper Ridge Biological Preserve: Trails



Jasper Ridge Biological Preserve: Vegetation



JASPER RIDGE BIOLOGICAL PRESERVE

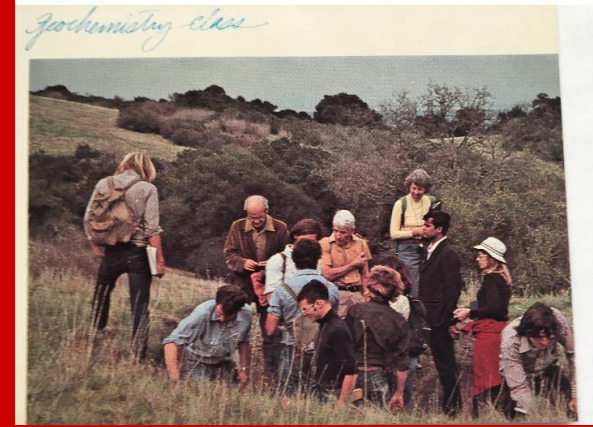
- **Research:** More than 90 researchers, 8 countries, 73 ongoing research projects, 16 of them for more than 10 years!
- **Education and Outreach:** More than 5000 educational visits! Classes, BIO/ESYS 105 docent training program, 2200+ outside learners from other universities, community colleges, K-12, nonprofits, Muwekma Ohlone tribe!
- **Conservation:** NSF SOAR grant, Anthropocene, OBFS, SCSMN, GGBN and networks, ALERTWildfire, fuel management, wildlife corridors, Oakmead herbarium, stream restoration proand more!



JASPER RIDGE BIOLOGICAL PRESERVE

Education and Outreach

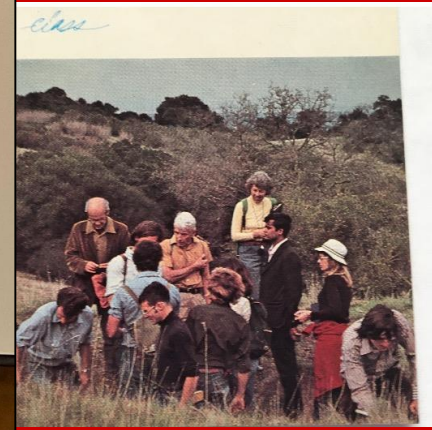
- More than 30 Stanford University classes
- More than 2200 visitors from other educational institutions
- The Jasper Ridge docent training course, an upper division BIO/ESYS course since 1975
- Awards for students for research and education/outreach
- Support for student groups to organize education and outreach events
- Career development via our networks of professional societies and organizations.
- We have established policies and guidelines following Title IX offices and Culture of Respect for field work and



JASPER RIDGE BIOLOGICAL PRESERVE

Education and

- More than
- More than
- institution
- The Jasper
- division B
- Awards for
- education
- Support for
- outreach
- Career de
- societies
- We have
- Title IX of



stations

By the Numbers

EDUCATION

Within Stanford

1280 Stanford Students

8 Stanford Classes

20 Departments or Programs

4 Stanford Schools

Overall

25 Visits for Meetings & Events

842 On-Site Visits

4342 Virtual Visits

Overall visits increased 28% compared to last year. Because the pandemic shut us down for 10 months, virtual visits increased and on-site visits decreased.

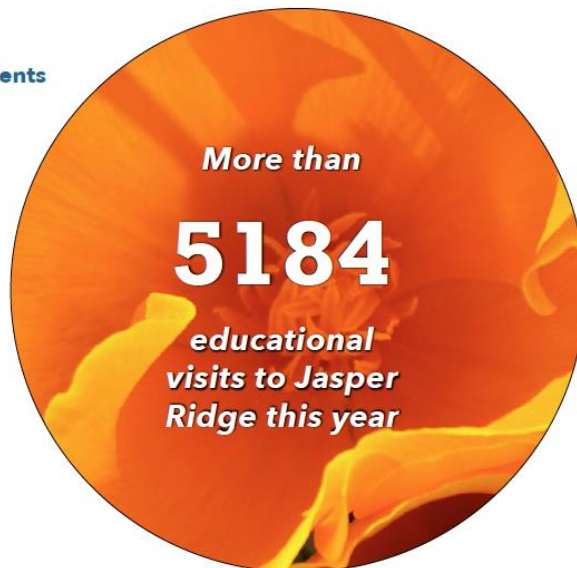


Photo: JRBP Staff

Outside Stanford

2119 Visits by Learners Outside Stanford

1117 Non-Stanford College Student Visits

678 K-12 Visits

15 Non-Stanford Colleges & Universities

5 High Schools & Middle Schools

16 Partner Organizations

BIO ESYS 105: ECOLOGY AND NATURAL HISTORY OF JASPER RIDGE

with Prof. Rodolfo Dirzo

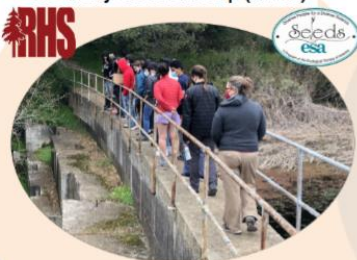


Phoebe Richardson



COMMUNITIES AT JASPER RIDGE

Redwood Environmental Academy of Leadership (REAL)



- **GOAL:** Program to introduce high school students in an alternative high school to STEM outdoor practices and data analysis skills.
- **COMMITMENT:** Started in 2005 and people involved include high school staff, faculty, JR staff, SEEDS students and docents.
- **BENEFITS:** Build teaching and learning STEM skills for both SEEDS and high school students.
- **SUPPORT:** Help plan, build lesson plans, funding to support transportation and food.

STEAM Program for Latina Girls



- **GOAL:** Bilingual program to introduce Latina students from underserved schools to STEAM
- **COMMITMENT:** Started in 2018 and people involved include teachers, faculty, JR staff, students, docents and Mexican Consulate staff.
- **BENEFITS:** Enhance education and build a network and community in San Jose, CA.
- **SUPPORT:** Help plan, build lesson plans, funding to support transportation and food.

Menlo-Atherton Ecology Research Outdoors (MERO)



- **GOAL:** Empowering English Language Learners through outdoor education
- **COMMITMENT:** Started in 2017 people involved include teachers, students
- **BENEFITS:** Build community, gain the academic, communication, and life skills needed to excel in high school and beyond.
- **SUPPORT:** Stipends for coordinators, funds for field trips, transportation, and food.

Student Opportunities in Avian Research (SOAR) to Enhance STEM Education



- **GOAL:** Help diverse learners build their skills & confidence in safe outdoor settings that highlight their connections to each other and to nature.
- **COMMITMENT:** Started in 2020 with plans to extend with 9 colleges, universities, and NGOs
- **BENEFITS:** A network that will build pathways of research and data skills in diverse and inclusive field experiences for college students in STEM.
- **SUPPORT:** Funded by NSF to build network and curriculum: <https://www.soarnetwork.org/>

Careers in STEM

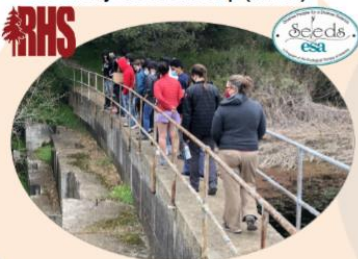


- **GOAL:** Introduce undergraduate and graduate students to different professions in STEM
- **COMMITMENT:** Started in 2020 and network has been expanded to NGOs, government agencies, non-profits, industry and universities.
- **BENEFITS:** Build a professional community in the Bay Area for professionals in STEM.
- **SUPPORT:** Organized by volunteers and industry in the Bay Area and during conferences

COMMUNITIES AT JASPER RIDGE

COMMITMENT AT JASPER RIDGE

Redwood Environmental Academy of Leadership (REAL)



- **GOAL:** Program to introduce high school students in an alternative high school to STEM outdoor practices and data analysis skills.
- **COMMITTEMENT:** Started in 2005 and people people involved include high school staff, faculty, JR staff, SEEDS students and docents.
- **BENEFITS:** Build teaching and learning STEM skills for both SEEDS and high school students.
- **SUPPORT:** Help plan, build lesson plans, funding to support transportation and food.

STEAM Program for Latina Girls



- **GOAL:** Bilingual program to introduce Latina students from underserved schools to STEAM
- **COMMITTEMENT:** Started in 2018 and people involved include teachers, faculty, JR staff, students, docents and Mexican Consulate staff.
- **BENEFITS:** Enhance education and build a network and community in San Jose, CA.
- **SUPPORT:** Help plan, build lesson plans, funding to support transportation and food.

Menlo-Atherton Ecology Research Outdoors (MERO)



- **GOAL:** Empowering English Language Learners through outdoor education
- **COMMITTEMENT:** Started in 2017 people involved include teachers, students
- **BENEFITS:** Build community, gain the academic, communication, and life skills needed to excel in high school and beyond.
- **SUPPORT:** Stipends for coordinators, funds for field trips, transportation, and food.

Student Opportunities in Avian Research (SOAR) to Enhance STEM Education



- **GOAL:** Help diverse learners build their skills & confidence in safe outdoor settings that highlight their connections to each other and to nature.
- **COMMITTEMENT:** Started in 2020 with plans to extend with 9 colleges, universities, and NGOs
- **BENEFITS:** A network that will build pathways of research and data skills in diverse and inclusive field experiences for college students in STEM.
- **SUPPORT:** Funded by NSF to build network and curriculum: <https://www.soarnetwork.org/>

Careers in STEM



- **GOAL:** Introduce undergraduate and graduate students to different professions in STEM
- **COMMITTEMENT:** Started in 2020 and network has been expanded to NGOs, government agencies, non-profits, industry and universities.
- **BENEFITS:** Build a professional community in the Bay Area for professionals in STEM.
- **SUPPORT:** Organized by volunteers and industry in the Bay Area and during conferences

SUPPORTING STANFORD STUDENT GROUPS PURSUING OUTREACH AND STEM EDUCATION



LOCAL AND REGIONAL HIGH SCHOOL PROGRAMS

"I loved it, thank you for taking us out Mr. Powell! It was amazing to learn about all the intricacies of these ecosystems. It seemed like every question we asked about the environment had a story about it. Mary knew them all, from the rocks to the trees, which smelled so good."



REGIONAL K-12 EDUCATIONAL CLASS VISITS

Latinas in STEM, MERO, REAL + SEEDS Program, Latino Outdoors and more



San Francisco Bay Research Coordination Network for Student Opportunities in Avian Research to Enhance STEM Education

soarnetwork.org



**We excite students about
careers in STEM through the lens
of ornithology.**

Our mission is to help diverse learners build their skills and confidence in safe outdoor settings that highlight their connections to each other and to nature.



Participants

Anthony Barnosky, Stanford University

Leticia Gallardo, West Valley College

Brody Sandel, Santa Clara University

Lynne Trulio, San Jose State University

Yiwei Wang, San Francisco Bay Bird Observatory

Jorge Ramos, Stanford University

Dan Wenny, San Francisco Bay Bird Observatory

Esther Adelsheim, Stanford University

Rodolfo Dirzo, Stanford University

Tyler McFadden, Stanford University

David Tattoni, Stanford University

SOAR Goals

- Provide experiential and inquiry-based learning in field settings
- Involve students in data acquisition and analysis
- Provide STEM opportunities with a focus on enhancing Diversity, Equity, and Inclusion



SOAR EDUCATIONAL ARC

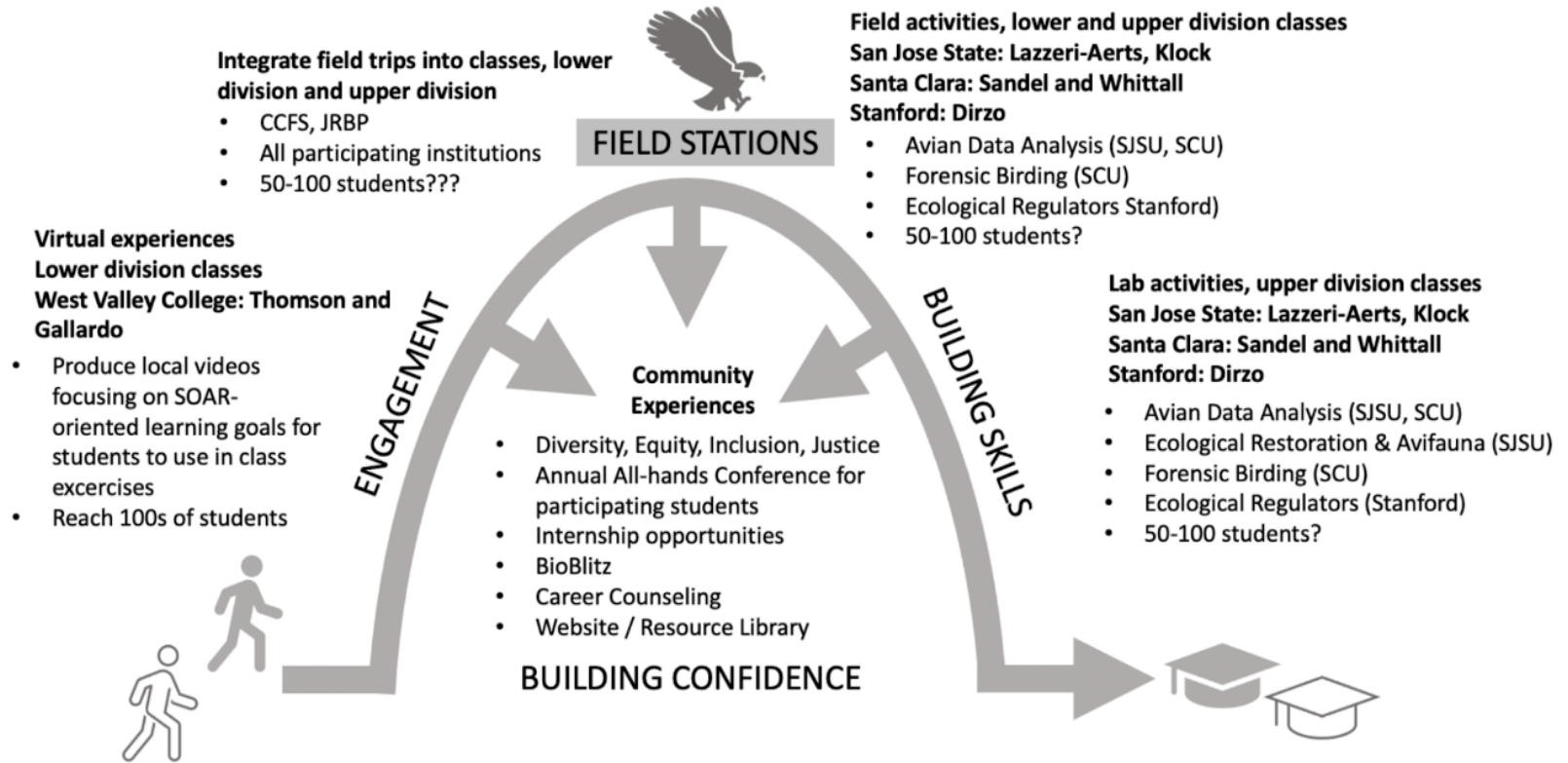
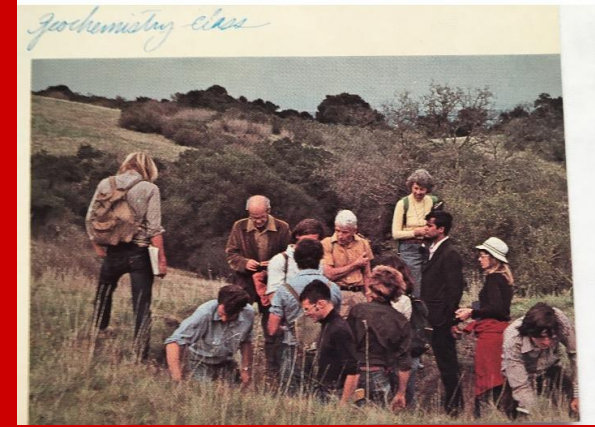


Figure 1. *The progression that students can take through the SOAR program.*

JASPER RIDGE BIOLOGICAL PRESERVE

COMMITMENTS:

- Financially support an education and outreach staff member in your team.
- Offer funds to build an inclusive education program to recruit partners.
- Intentionally integrate education staff and program with other activities in your program.
- Support long-term commitment of education activities and prepare to adapt to the changing education and professional workforce.
- Create new incentives and awards for education and outreach to encourage innovation and long-term commitment.
- Celebrate all successes in your program!



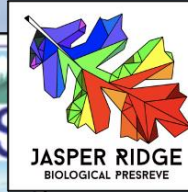
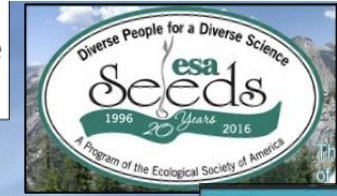
Gracias!



Jasper Ridge wins Human Diversity Award from international field station consortium



Stanford Jasper Ridge
Biological Preserve
SCHOOL OF HUMANITIES AND SCIENCES



SACNAS



July 2021 Research Experience for Teachers Program



**MENLO-ATHERTON ECOLOGY
RESEARCH OUTDOORS**



**THE NATIVE
AMERICAN
CULTURAL
CENTER**



Gracias!