



CALIFORNIA'S FIFTH
CLIMATE CHANGE
ASSESSMENT

Collaborating with Tribes on Indigenous Knowledge (IK)/Traditional Ecological Knowledge (TEK) in Climate Change Research

Moderator:

Neil Matouka, Climate Assessment Program Manager, Office of Planning and Research

Presenters:

Connor Magee, Research and Data Application Manager-Climate Science Alliance, Pala Band of Mission Indians, Tribal Advisory Member

Patricia Kennedy (she/her), Climate Assessment Tribal Program Manager, Office of Planning and Research



Overview

Climate Assessment Overview

**California's Fifth Climate Change
Assessment Tribal Research Program**

Case Study: Resilient Restoration

**Roundtable on Indigenous Knowledge
Guidance**



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California Climate Change Assessment and Tribal Research Program Overview



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Discussion Questions



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*Program goal: Develop tribally led **Guidance on Collaboration and Protection of IK's and tribal knowledge** through research processes and report handling*

OPR will support tribally developed guidance on collaboration with Tribes on Indigenous Knowledges in climate research processes and report handling.

- Have you collaborated with Tribes on IK's in Climate Research and Planning? If so, what went well/wrong? If not, what gaps/challenges/barriers did you face?
- As we start to embark on this work, is there any component you think is critical for us to consider or resource you would like to be created?
- We are not trying to recreate the wheel, existing resources that you have valued can help inform this process.

What are the California Climate Change Assessments?

California's Climate Change Assessments contribute to the **scientific foundation for understanding climate-related vulnerability at the state, regional, and local scale** and inform resilience, adaptation, and mitigation actions.

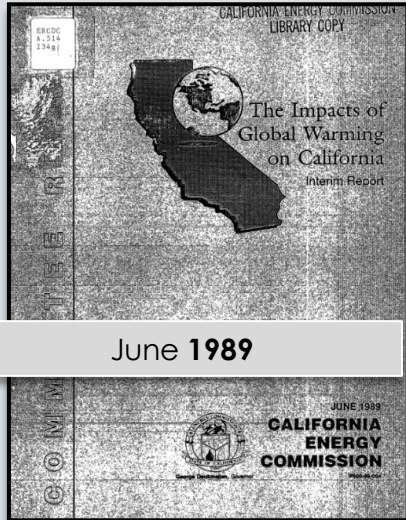


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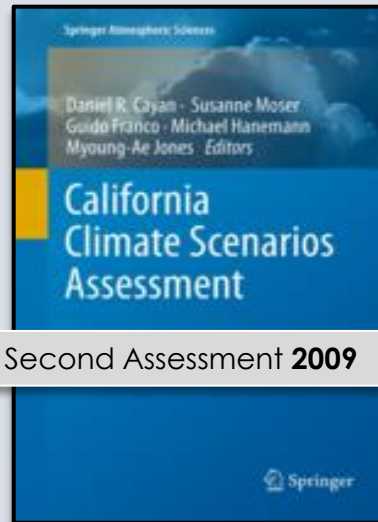
Previous Climate Change Assessments



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June 1989

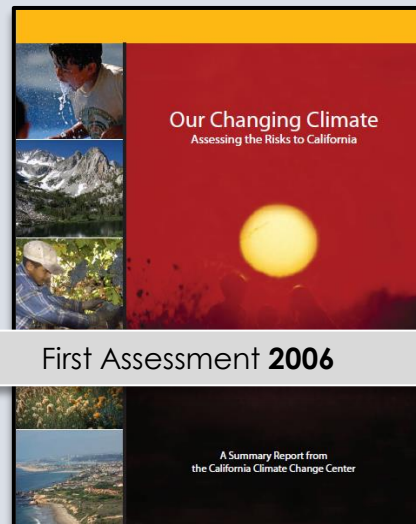


Second Assessment 2009

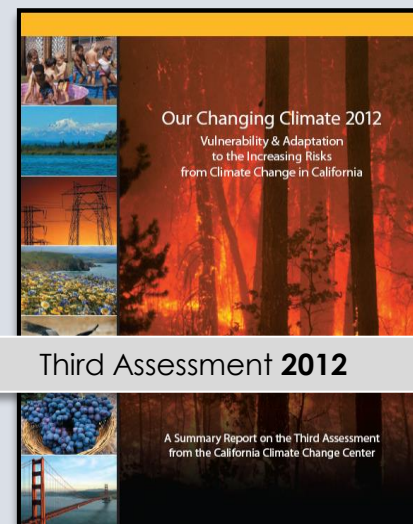


Fourth Assessment 2018

<https://climateassessment.ca.gov/>



First Assessment 2006



Third Assessment 2012

California's Fifth Climate Assessment

The Fifth Assessment will produce a suite of research and tools that report the impacts and risks of climate change, based on the best available science.

1. New climate data and scenarios
2. Original research that addresses California-specific research needs
3. A Tribal Research Program to collaborate on Indigenous knowledges and tribal expertise
4. A suite of regional, topical, and statewide synthesis reports
5. A dedicated, sustained, and equity-centered engagement process



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Tribal and Indigenous Communities Report (4th Assessment)



“This report is the beginning of something truly innovative: **a mutual invitation between tribes and the state to share learning with an urgent focus on climate action, incorporating traditional knowledges and practices.** This synthesis is the starting point of a new productive climate conversation between tribes and the state”

– page 10 of CA Fourth Climate Assessment Tribal and Indigenous Communities Report (2018)



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Tribal Research Program Goals



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- **Engage and consult** with tribal communities to advance collaboration on **Indigenous knowledge(s) and tribal expertise**
- Establish a **Tribal Advisory Group** to ensure collaboration on Indigenous knowledge(s) and tribal expertise throughout the Assessment
- Support tribally-led research through a **Tribal Grant Program** to address California-specific tribal research needs and questions related to climate change
- Develop a **Tribal Synthesis Report** that includes tribally-led research and summarizes climate change impacts to tribes in California
- Develop tribally led **Guidance on Collaboration and Protection of IK and tribal knowledge** through research processes and report handling

Tribal Research Funding



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Tribal Research Grant Program

- \$3.625 Million
- \$20k-\$400k Individual Awards
- Tribes and Tribal Organizations
- Round 1 Application Window: August-October 2023

Tribal Advisory Group

- ~\$50k/year for TAG
- Individual Contracts
- Nomination from CA Native American Tribe
- Expertise with IK or climate work

IK Guidance and Implementation Support

- ~\$190k
- RFP to Tribal Serving Organization, subawards possible
- Late Fall 2023

Tribal Synthesis Report

- ~\$250k
- RFP or IA
- Entity flexible
- One contract to coordinate/subcontract Authors
- Early 2024

Tribal Advisory Group



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Program Goal: Establish a **Tribal Advisory Group** to ensure collaboration on Indigenous knowledge(s) and tribal expertise throughout the Assessment



Tiana Williams-Claussen, Wildlife Director, Yurok Tribe



Raymond Gutierrez, Eco-Cultural Ecologist, Wuksachi Indian Tribe



Connor Magee, Research and Data Application Manager-Climate Science Alliance, Pala Band of Mission Indians



Christina McDonald, Secretary, North Fork Rancheria of Mono Indians



William "Yaan Yaan Eesh" Micklin, Chief Executive Officer, Ewiiapaayp of Kumeyaay Indians



Teresa Romero, Tribal Member, Coastal Band of Chumash Nation



Michael Shaver, Water Resources Director, Potter Valley Tribe



Dean Tonenna, VP Mono Lake Kootzaduka'a Indian Community Cultural Preservation Association, Mono Lake Kootzaduka'a



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Q&A

Photo by Condor Visual Media

Resilient Restoration

Advancing Ecological, Cultural, and Community Resilience with Tribal Nations in Southern California

Avanzando la resiliencia ecológica, cultural y comunitaria con naciones tribales en el sur de California



www.climatesciencealliance.org/resilient-restoration

Our Mission

The mission of the Climate Science Alliance is to safeguard natural and human communities in the face of a changing climate. We do this through leading activities and creating partnerships which increase awareness of climate change impacts, promote solutions, and facilitate action.

La misión de la Climate Science Alliance es resguardar comunidades naturales y humanas ante un clima cambiante. Logramos esto liderando actividades y creando colaboraciones que incrementan conciencia sobre los impactos del cambio climático, promueven soluciones y facilitan acciones.



360+ diverse partnering organizations

Our Approach

Supporting regionally-specific, cross-disciplinary research to better inform climate solutions.

BUILDING RESILIENCE
FORJANDO RESILIENCIA

BUILDING CAPACITY
FORJANDO CAPACITACIÓN

Meeting people where they are with accessible information on climate science, planning, and management.

Bridging the gap between climate research and the community through multiple innovative avenues of science translation.

BUILDING COMMUNITY
FORJANDO COMUNIDAD



Tribal Partnerships & Projects

Colaboraciones y proyectos tribus

- Integration of cultural and natural resource conservation
Integración de conservación de recursos culturales y naturales
- Equal valuation of ways of knowing
Valoración equitativa de maneras de conocer y saber
- Advancing understanding of ancestral homelands for jurisdictional planning and co-stewardship of the land
Avanzando entendimiento de patria ancestral para planeación jurisdiccional y coadministración de la tierra
- Decolonize the conservation and climate adaptation paradigm
Descolonizar la conversación y el paradigma de la adaptación climática

you are
here

BUILDING RESILIENCE
FORJANDO RESILIENCIA

BUILDING CAPACITY
FORJANDO CAPACITACIÓN

BUILDING COMMUNITY
FORJANDO COMUNIDAD

OUR MODEL IN ACTION / NUESTRO MODELO EL ACCIÓN

Tribal Working Group

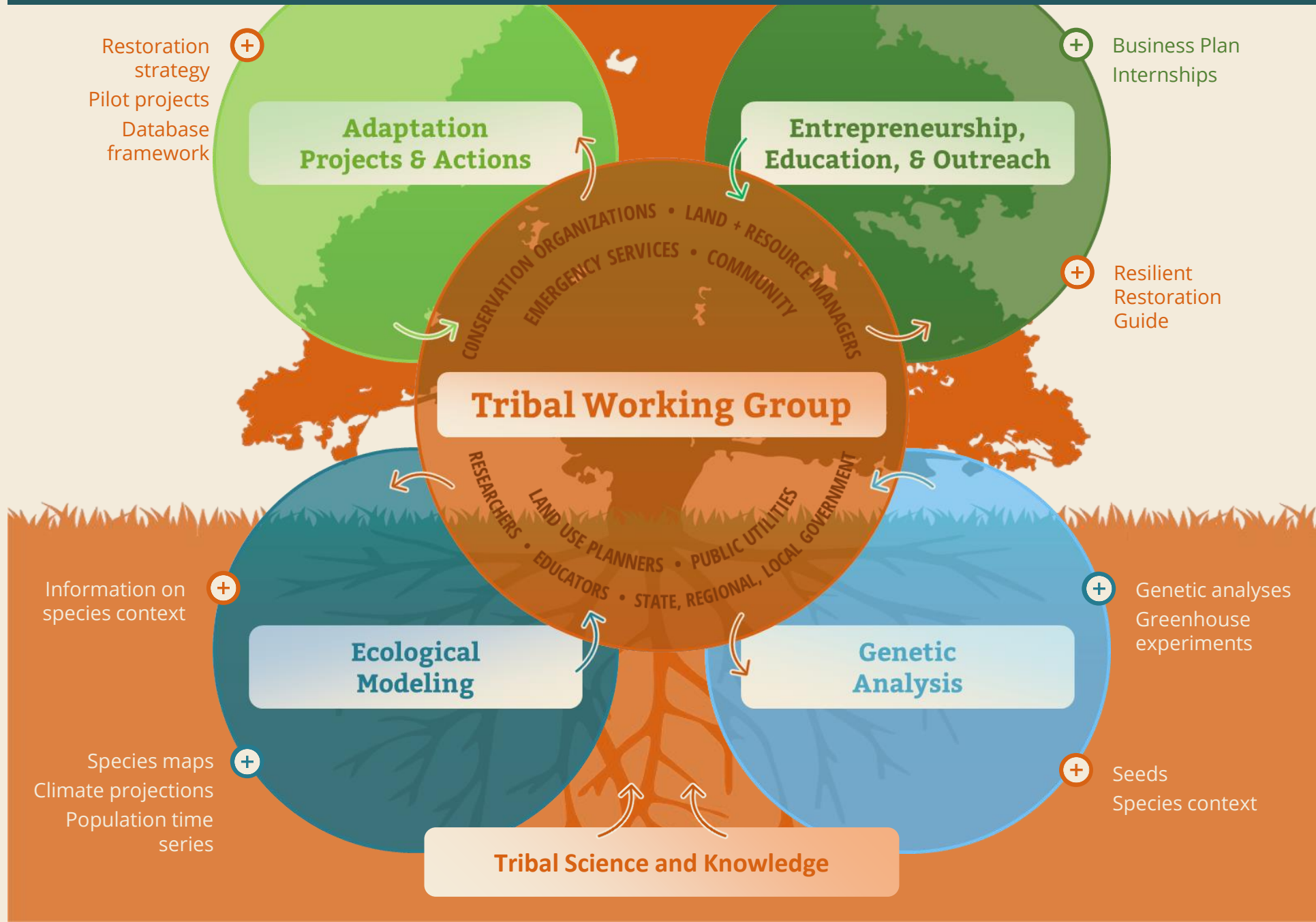
Using education, environmental programs, and traditional ecological knowledge, and a focus on community priorities, local ecosystems, and holistic management, we collaborate to safeguard the lands and cultures of southern California's Indian Tribes from the threat of climate change.

Utilizando educación, programas ambientales y conocimientos ecológicos tradicionales y un enfoque en prioridades comunitarias, ecosistemas locales y manejo holístico, colaboramos para resguardar las tierras y culturas de las tribus del sur de California de la amenaza del cambio climático.

- **20+** Tribal nations
- **70+** individuals



RESILIENT RESTORATION PROJECT



PROJECT ROLES

Tribal Working Group

The Tribal Working Group will provide leadership and guidance to determine the priorities, vision, goals, and deliverables.

El Tribal Working Group proveerá liderazgo y dirección para determinar las prioridades, la visión, los objetivos y los entregables del proyecto.

- **Inform and determine research priorities, scope, and objectives**
Informar y determinar prioridades, rango y objetivos de la investigación
- **Develop and implement Intertribal projects to test strategies**
Desarrollar e implementar proyectos intertribales para poner estrategias a prueba
- **Integrate research findings into current and future group projects**
Integrar hallazgos de investigación a proyectos colaborativos actuales y futuros
- **Prioritize and implement research products, tools, and resources developed in long-term Tribal Working Group efforts**
Priorizar e implementar productos, herramientas y recursos de investigación desarrollados durante esfuerzos de largo plazo del grupo de trabajo

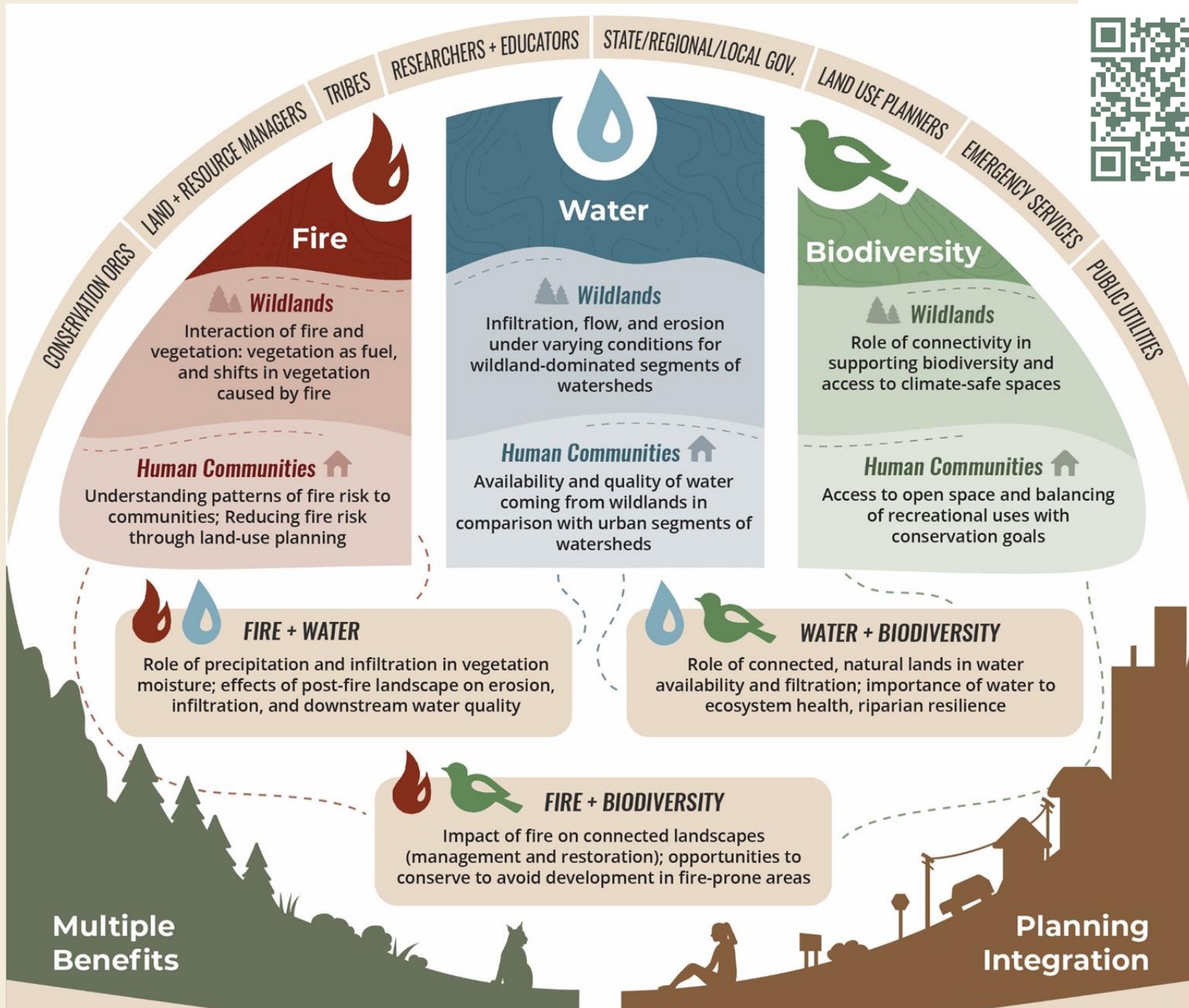
PROJECT ROLES

San Diego State University



www.climatealliance.org/cwc





UC Riverside

Assess Climate Impacts to Native Plants

Asesorar impactos climáticos a plantas nativas

Leverage data and modeling tools developed for “The roles of biogeography and species traits in determining the vulnerability of California native plant species to climate change”

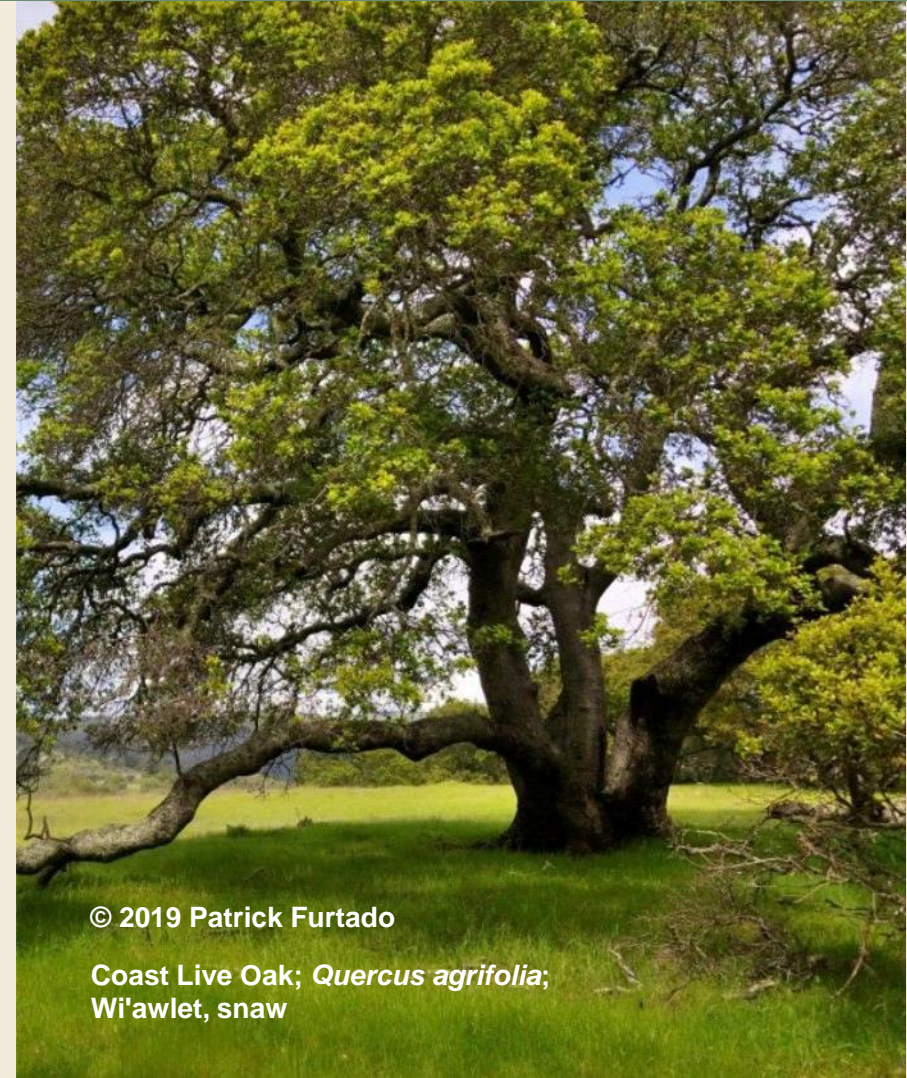
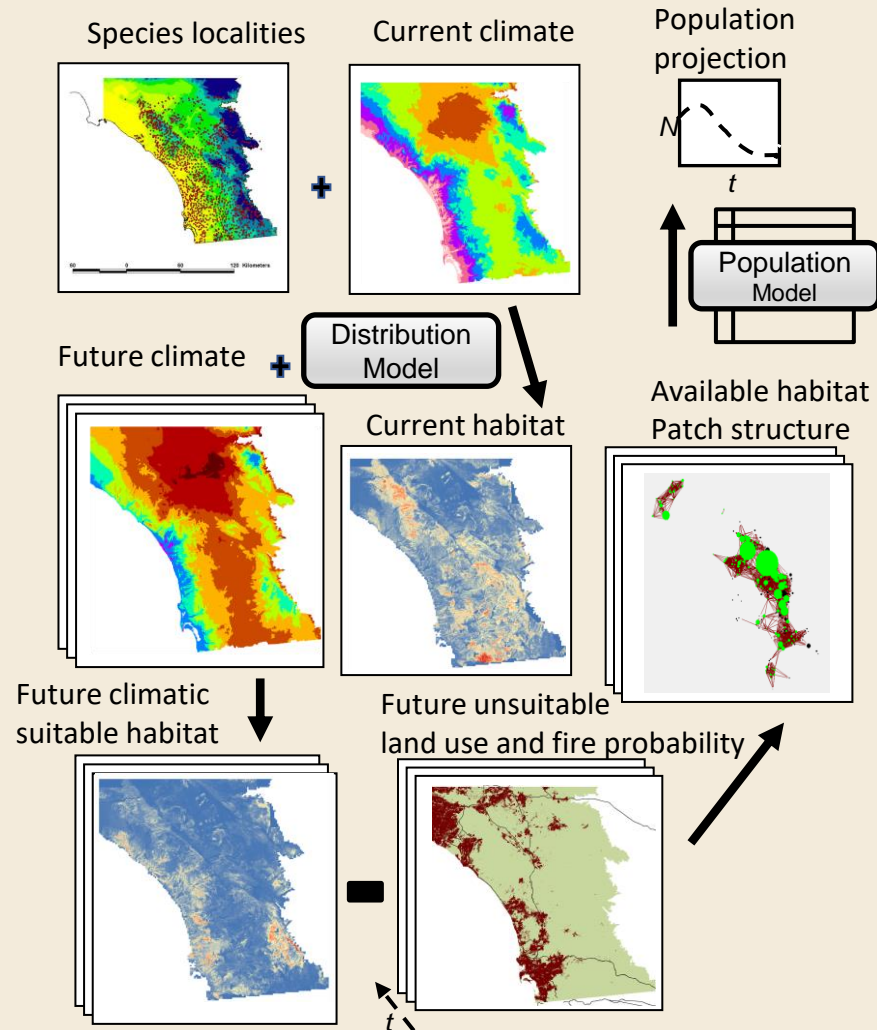
Utilizar datos y herramientas de modelación desarrolladas para “los roles de biogeografía y rasgos de especies en la determinación de la vulnerabilidad de especies nativas de plantas de California ante el cambio climático”



Mariposa Lily: Ghost Lily; *Calochortus alba*

Integrated Modeling Framework

Estructura de modelación integrada

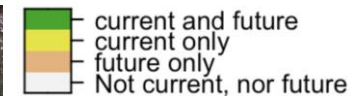
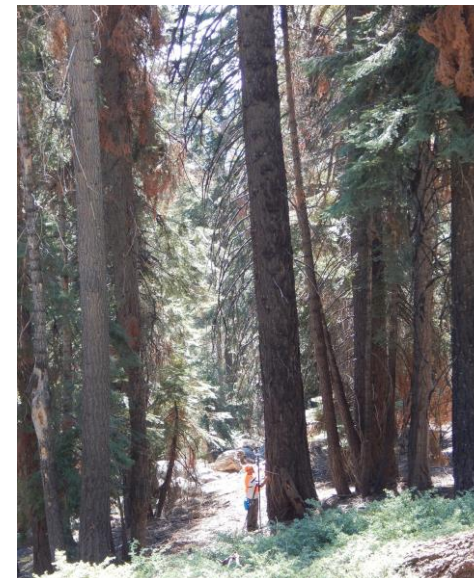
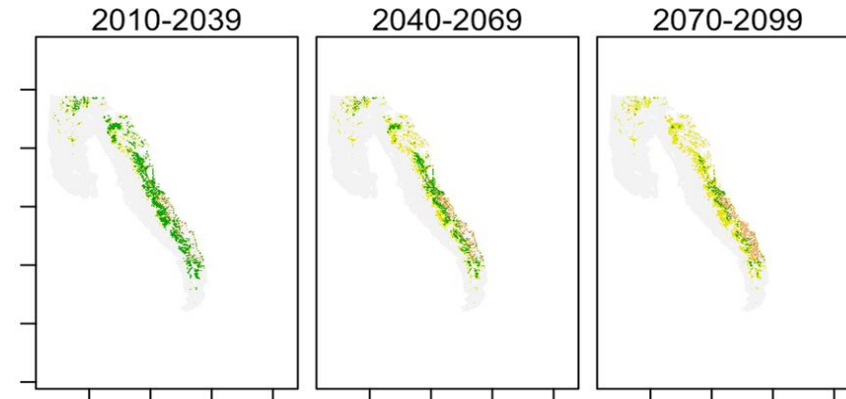
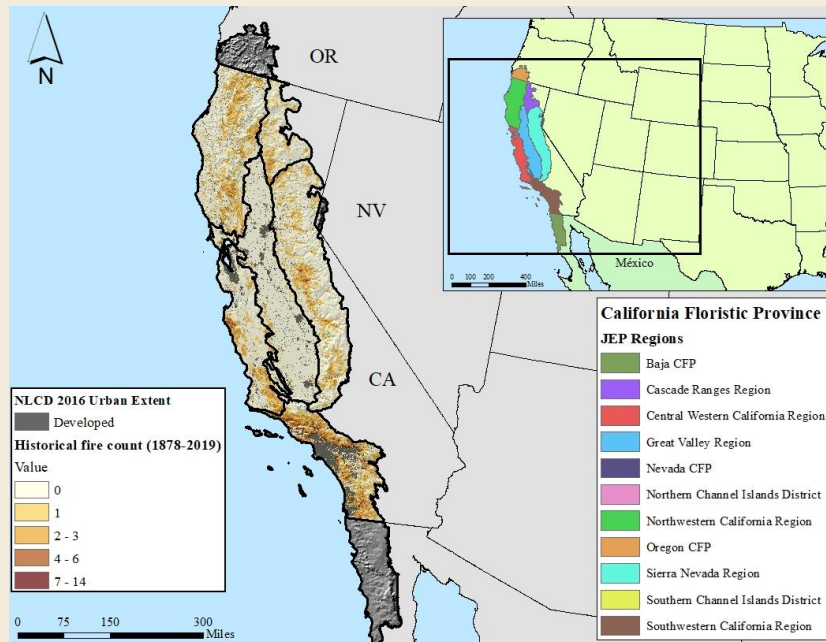


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Coast Live Oak; *Quercus agrifolia*;
Wi'awlet, snaw

Future Suitable Habitat Hábitat futuro adecuado

Use climate projections to predict changes in habitat suitable for plant species



Red Fir (*Abies magnifica*)



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Q&A



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Roundtable Discussion

IK Guidance and Support Background



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Background: Indigenous Knowledge (IK) and Tribal Expertise plays a critical role understanding and responding to climate change. Collaborating with Tribes meaningfully, protecting IK, valuing information when shared, and including this knowledge in State policy and research decisions when shared for those purposes by tribes is essential to this process.

There is a general lack of State understanding of IK as a valued knowledge system; how to collaborate respectfully with Tribes regarding IK, Tribal Data, and Tribal Expertise; and potential risks to Indigenous Peoples in sharing IK's with the State and other Researchers.

IK Guidance and Support Background

Purpose: To support tribally developed guidance and protocols that the Assessment will, and other State Agencies can, use to:

- 1) Better understand Indigenous Knowledge as a valued knowledge system;
- 2) Develop meaningful partnerships with Tribes in research and policy processes;
- 3) Develop protocols/templates on handling/protecting information and/or data when collaborating with Tribes on IK, Tribal Expertise, and other Tribal data; and
- 4) Work with Tribes, Assessment Author Teams and State Staff to implement the above guidance within the Assessment process and products.



IK Discussion Questions

*Program goal: Develop tribally led **Guidance on Collaboration and Protection of IK and tribal knowledge** through research processes and report handling*

OPR will support tribally developed guidance on collaboration with Tribes on Indigenous Knowledges in climate research processes.

- Have you collaborated with Tribes on IK's in Climate Research and Planning? If you are a Tribal Rep, have you worked with the State on this work? If so, what went well/wrong? If not, what gaps/challenges/barriers did you face?
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IK Discussion Questions

Have you collaborated with Tribes on IK's in Climate Research and Planning? If you are a tribal representative, have you worked with the state, local, or academic partners on this?

If so, what went well/wrong? If not, what gaps/challenges/barriers did you face?



IK Discussion Questions

As we start to embark on this work, is there any component you think is critical for us to consider or resource you would like to be created?



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IK Discussion Questions

Can you suggest existing resources that can further inform this process?



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Register for an in-person workshop near you!

- **Sacramento Valley: July 11, 2023**
- **San Joaquin Valley: July 19, 2023**
- **San Francisco Bay Area: July 25, 2023**
- **Sierra Nevada: August 10, 2023**
- **Inland Deserts: August 15, 2023**
- **Central Coast: August 24, 2023**
- **North Coast: August 29, 2023**
- **Los Angeles: September 12, 2023**
- **San Diego: September 13, 2023**

Thank You



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Sign up for the [Tribal Research Program Mailing List](#)

