Golden Gate Biosphere Climate Adaptation Project

Adaptation Workshop
Dec. 4–5, 2023

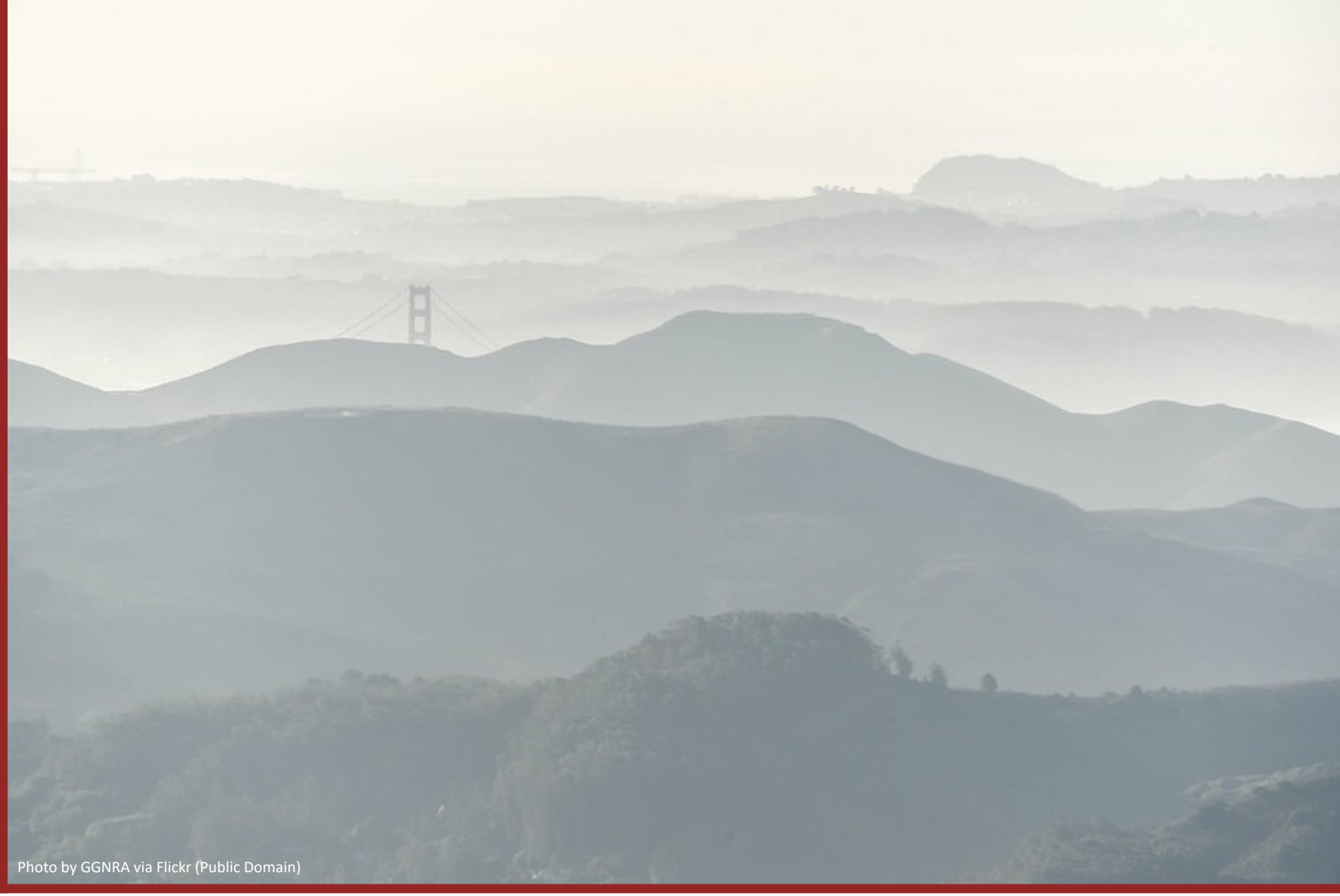
Photo by GGNRA via Flickr (Public Domain)

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Laura Hilberg, Senior Scientist
laura.hilberg@ecoadapt.org

Land Acknowledgement

We acknowledge that the Golden Gate Biosphere region is located on the lands of the Pomo, Coast Miwok, and Ohlone peoples, who care for these lands and waters and have for time immemorial.

As we work together over the next two days to address the impacts of climate change on the ecosystem and species of this region, it's important that we are also working to address the ongoing impacts of colonialism and restore tribal sovereignty and indigenous rights to the land.

The resilience of all of our communities requires healthy, vibrant indigenous nations among and around us.

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Mission: To create a robust future in the face of climate change

How? Providing support, training, and assistance to make planning and management less vulnerable.

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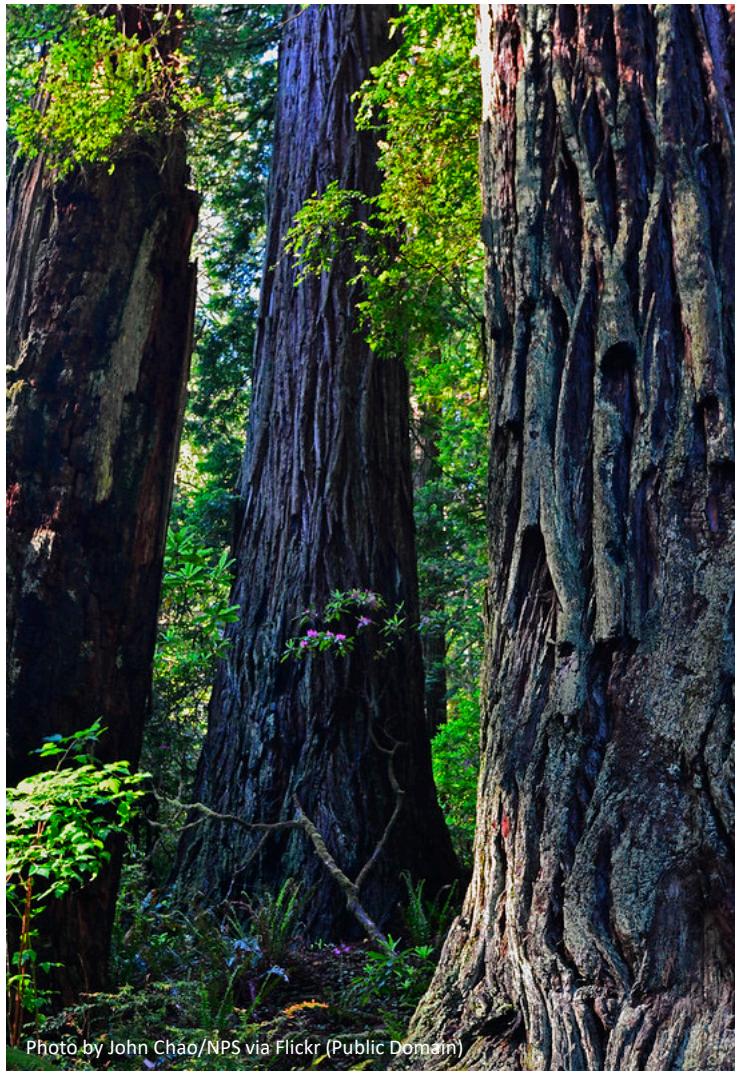
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Project Goals

- Improve understanding of how and why important ecosystems and species in the GGB region may be vulnerable to climate change
- Identify adaptation actions that can be implemented to reduce vulnerabilities and/or increase overall resilience
- Build capacity for climate-informed management decisions and strengthen partnerships

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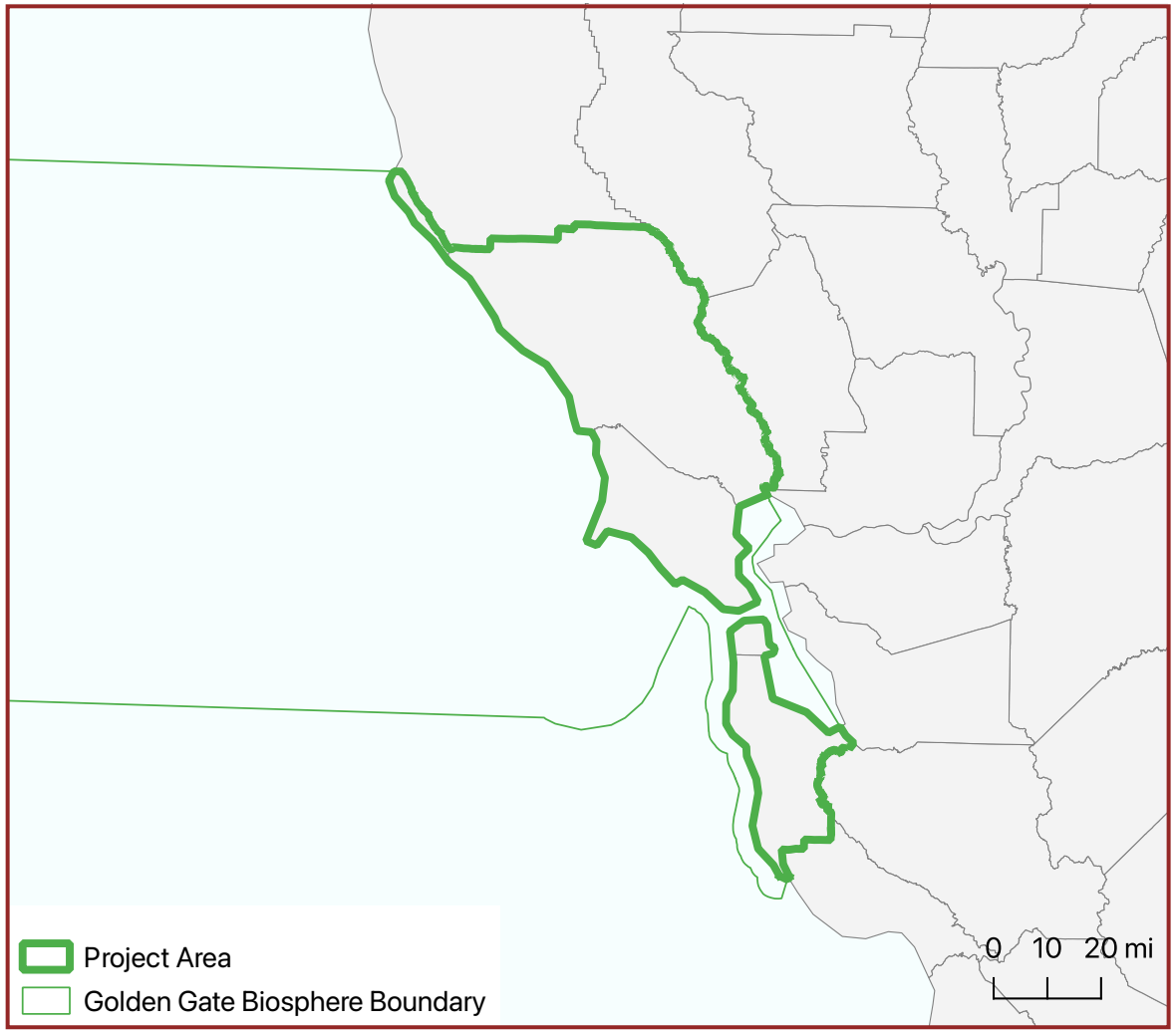

Project Activities

- Focal resource selection

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Focal Resources


Photo by Sarah Swenty/USFWS (Public Domain)

Ecosystem	Species
Coast redwood forests	Belted kingfisher
Coastal dunes	California black oak
Coastal prairie	California red-legged frog
Coastal scrub	Coho and steelhead
Freshwater marshes	Mission blue butterfly
Maritime chaparral	Mountain lion
Mixed evergreen forests	San Bruno elfin butterfly
Open oak woodlands/savannahs	SF common yellowthroat
Riparian forests/woodlands	Sanderlings
Tidal marshes	Serpentine endemic rare plants
	Western leatherwood

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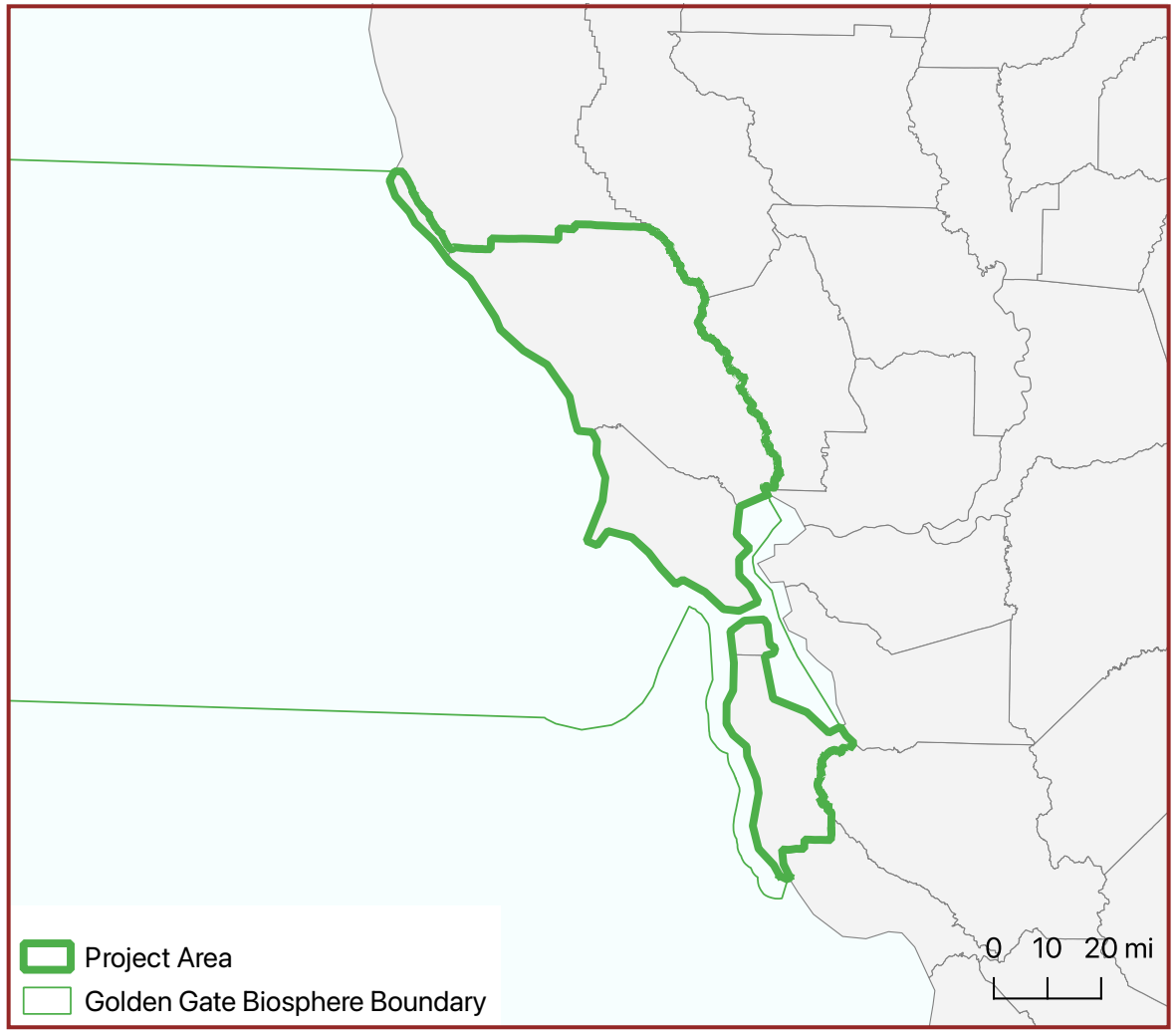

Project Activities

- ✓ Focal resource selection
- ✓ Spatial analysis
- ✓ Vulnerability assessment workshop & writing
- Adaptation workshop
- Final products *(coming 2024!)*

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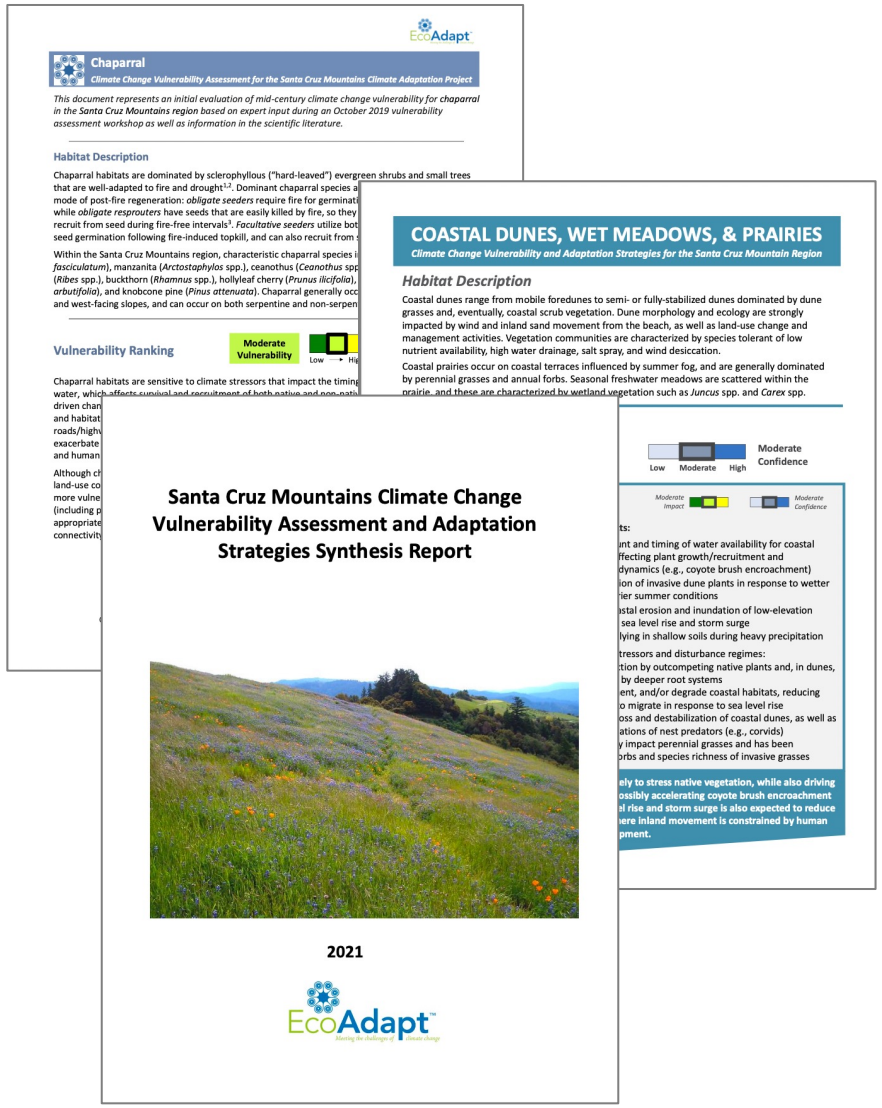
Final Products

- **Vulnerability assessment summaries** for 21 focal ecosystems and species
- Suite of stakeholder-developed **adaptation strategies and actions**
- Short **vulnerability-adaptation briefs** linking adaptation actions to identified vulnerabilities
- **Synthesis report** outlining project findings and methodology
- **Supporting maps and GIS layers** for projected climate changes and vegetation response



Golden Gate Biosphere Climate Adaptation Project

Project Team

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Laura Hilberg
Kathryn Braddock
Deb Rudnick

Pepperwood PRESERVE

Kai Henifin

Conservation Biology Institute

Heather Rustigian-Romsos
Alexandra Syphard

National Park Service

Alison Forrestel

Golden Gate Biosphere Network ESTD. 1988

Sam Cuthell

Core Advisory Team

- Shaun Horne (MMWD)
- Rosa Schneider (CA State Parks)
- Ellen Nateson (SFPUC)
- Jessica Appel (SFPUC)
- Danny Franco (Parks Conservancy)
- Trudy Garber (Parks Conservancy)
- Lisa Micheli (Pepperwood Preserve)

GGB Region Stakeholders

- All of you!

Adaptation Workshop Objectives

Day 1

- **Review regional climate projections and vulnerability assessment results**
- **Develop a suite of climate-informed adaptation strategies and actions for coastal dunes, coastal prairie, coastal redwood forests, and riparian forests/woodlands**

Day 2

- Develop a suite of climate-informed adaptation strategies and actions for four additional ecosystems and species
- Identify potential collaborative projects that GGBN member organizations could implement to reduce vulnerability

Team Introductions

Laura Hilberg

Carey Schafer

Kathryn Braddock

Deb Rudnick

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Workshop Materials

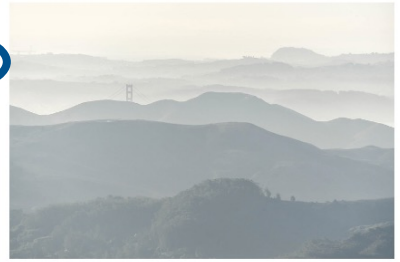
team programs workshops resources events engage contact about

EcoAdapt™

Golden Gate Biosphere Region Climate Adaptation Workshop

December 4th and 5th, 2023 • San Francisco, CA • Fort Mason Center for Arts & Culture

Overview



This adaptation workshop is one part of the **Golden Gate Biosphere Climate Adaptation Project**, a collaborative effort between EcoAdapt and the Golden Gate Biosphere Network (GGBN). The purpose of this project is to conduct vulnerability assessments and develop climate-informed adaptation strategies for focal ecosystems and species in the Golden Gate Biosphere (GGB) region, which encompasses the Bay Area of California.

The goal of this two-day workshop is to develop a suite of climate-informed adaptation strategies and actions for several focal ecosystems and species in the GGB region. We will also be sharing the results of vulnerability assessments and spatial analyses completed for this project, and highlighting opportunities for collaboration among GGBN member organizations. Overall, this workshop aims to build the capacity of participants to understand and incorporate information about expected climate impacts and vulnerability into conservation planning and management.

Agenda & Speakers

Workshop Agenda

Presentations:

- Climate Projections for the Golden Gate Biosphere Region *(Kai Henifin, Pepperwood Preserve)*
- Species Distribution Modeling Results *(Heather Rustigian-Romsos, Conservation Biology Institute)*
- Overview of Vulnerability Assessment Results *(Kathryn Braddock, EcoAdapt)*
- Identifying Climate-Informed Management Options *(Laura Hilberg, EcoAdapt)*

Workshop Support Page

https://ecoadapt.org/workshops/ggb-adaptation-workshop

Agenda

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Day 1: Monday, December 4th

Time	Agenda Item	Presenter(s)
9:00 am	**Registration and coffee**	
9:30 am	Welcome, overview, and introductions	Alison Forrestel, *NPS* Laura Hilberg, *EcoAdapt*
9:50 am	Climate projections for the GGB region	Kai Henifin, *Pepperwood Preserve*
10:50 am	**BREAK**	
11:00 am	Species distribution modeling results for priority trees and shrubs	Heather Rustigian-Romsos, *Conservation Biology Institute*
11:45 am	Overview of vulnerability assessment results	Kathryn Braddock, *EcoAdapt*
12:15 pm	**LUNCH**	
1:15 pm	*Breakout Group Activity:* Vulnerability synthesis and identification of priority sites (Round 1)	EcoAdapt facilitators
2:00 pm	*Large Group Discussion:* Report back on vulnerability synthesis and priority sites (Round 1)	Laura Hilberg
2:30 pm	Identifying climate-informed management options	Laura Hilberg
2:50 pm	**BREAK**	
3:00 pm	*Breakout Group Activity:* Adaptation strategies and actions for priority ecosystems in the GGBN region (Round 1)	EcoAdapt facilitators
4:45 pm	Wrap up and preview of next day	Laura Hilberg
5:00 pm	**ADJOURN**	

Today's Agenda

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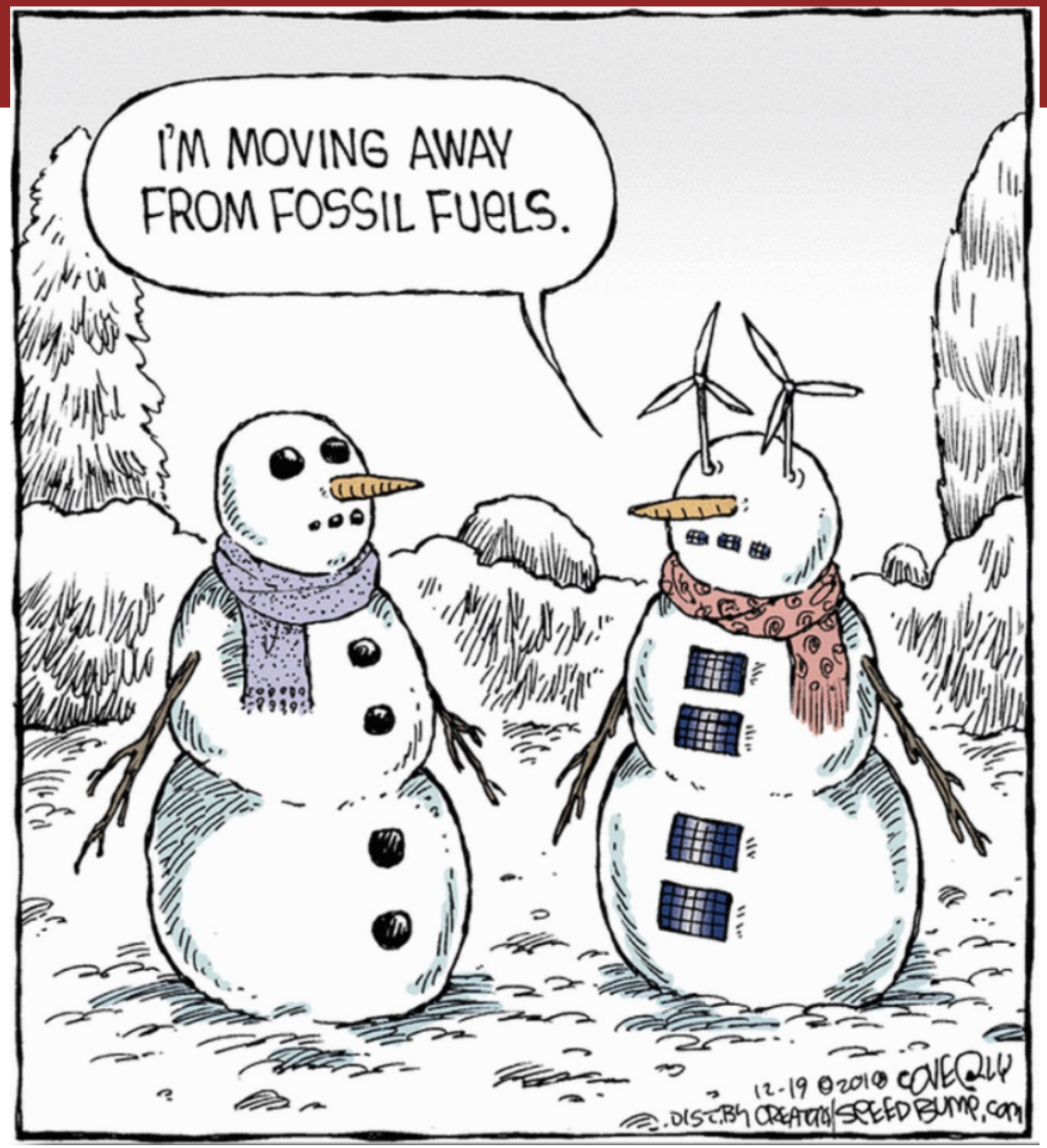
Questions?



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