



Universidad *de* California

Agricultura y Recursos Naturales

Engaging the Public by Building a Community of Climate Action Stewards

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Today's Talk

Symposium goals

- 1) Approaches that break down barriers to understanding climate science
- 2) Dealing with uncertainty in planning for climate
- 3) How to build partnerships to adaptation.



Beyond communication to conviction!

1. The climate change challenge.
 - a) How adults learn.
 - b) What leads to commitment and action.
2. Power of community: California Naturalist
3. Climate Action Stewards



Most important question of our time

Will we make the collective choice to accept the science about climate change, stop its progression, and prepare for the future?

OR

Will we doubt climate change, compartmentalize the topic as an environmental problem and continue to burn fossil fuels, and never really commit to do something about it.



Addressing climate change requires a commitment across society.

**DON'T
EVEN
THINK
ABOUT
IT**

**WHY OUR
BRAINS
ARE WIRED
TO IGNORE
CLIMATE
CHANGE**

GEORGE MARSHALL

3 Strikes!

1. LOSS

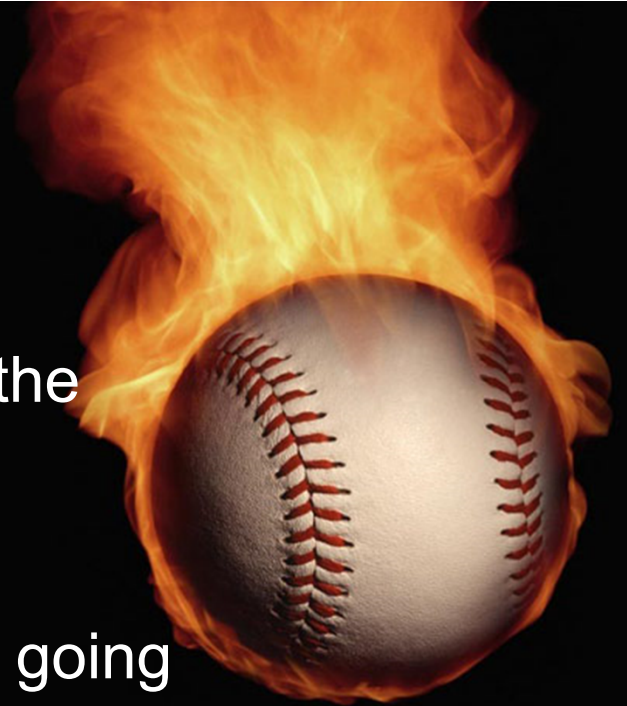
Everyone has to face some loss to win the battle against climate change.

2. FUTURE

The worst effects of climate change are going to take place in the future.

3. UNCERTAINTY

There is a lot of uncertainty about the rate and magnitude of change and the response of natural and human systems and the weather will be variable on the way to warmer over all temperatures.



How do people open to new ideas & become committed: Keys to from adult learning



Addressing wicked environmental problems, such as climate change, requires a scientifically literate engaged public.





UC California Naturalist: Statewide natural resource education and service program.

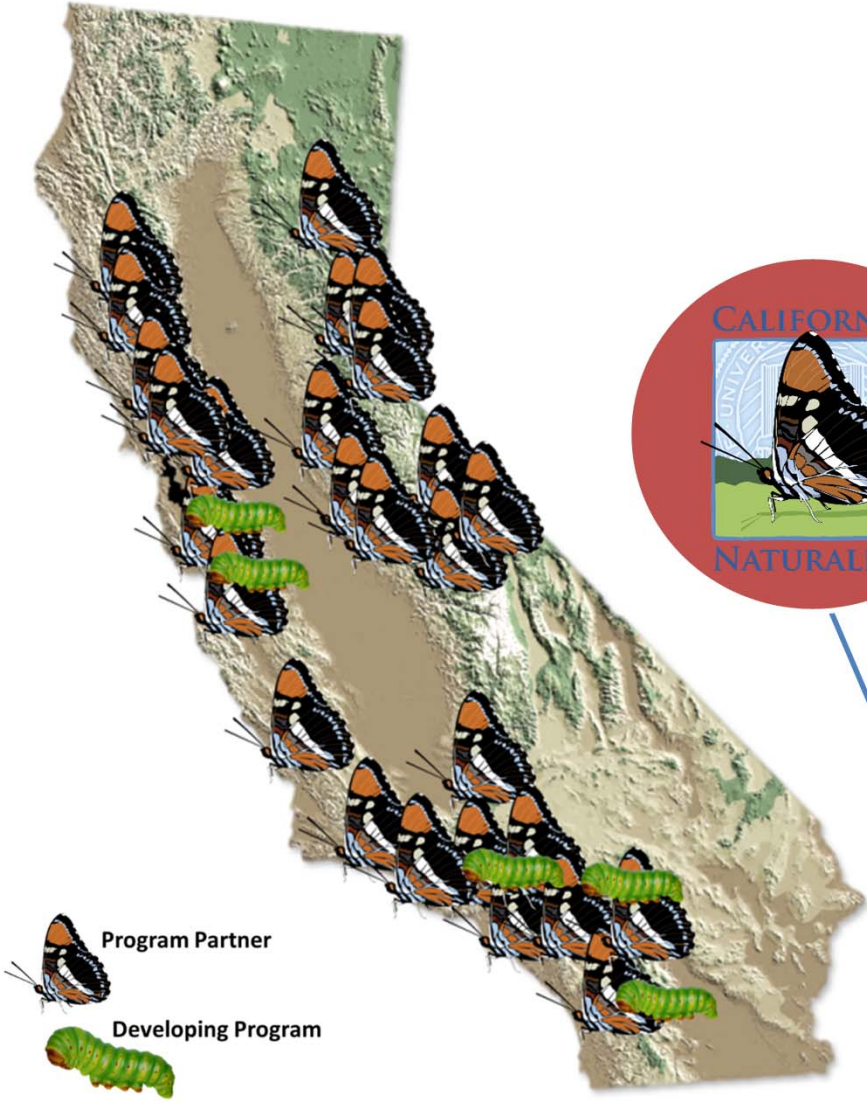


Foster a diverse community of naturalists and promote stewardship of California's natural resources through education and service.

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CALIFORNIA NATURALIST PROGRAM PARTNERS



UC & CE Units

- Central Sierras Cooperative Extension
- Hopland Research & Extension Center
- Plumas County Cooperative Extension
- San Diego Cooperative Extension
- UC Berkeley Sagehen Field Station
- UC Merced Vernal Pools & Grassland Reserve
- UC Merced Yosemite Field Station

Community Colleges

- Pasadena City College
- Santa Rosa Junior College & Pepperwood Preserve
- West Valley College

Informal Education

- Camp Ocean Pines
- Dominguez Rancho Adobe Museum
- Jepson Herbarium, UC Berkeley
- Pacific Grove NHM
- Riverside Metropolitan Museum
- Santa Barbara Botanical Garden
- UC Santa Cruz Arboretum

Conservancy & Land Trusts

- American River Conservancy
- Ojai Valley Land Conservancy
- Sierra Foothill Conservancy
- Preserve Calavera
- Tejon Ranch Conservancy

Park & Park Assoc.

- Calaveras Big Trees Assoc.
- Point Reyes National Seashore Assoc.
- Stewards of the Coast & Redwoods

Watershed Assoc.

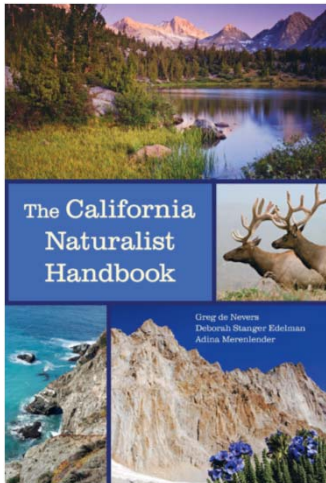
- American River Natural History Association
- Salmon Protection & Watershed Network
- Sierra Streams Institute

Workforce

- Mountains Recreation & Conservation Authority
- USC Sea Grant & LA Cons. Corps SEA LAB
- San Gabriel Mountains Naturalists:
 - Pacoima Beautiful Nature Ambassadors,
 - San Gabriel Canyon Watershed (SGVCC)
 - USFS MobilizeGreen Field Rangers & Youth Conservation Corps

Every certified CA Naturalist completes

- Reading & Homework
- 40 hours in class and field
- Journaling
- iNaturalist
- Citizen Science Project
- Capstone Projects
- Evaluation
- *UCD Extension Credits*
- *Volunteering & continuing education (encouraged)*



- *Natural History*
- *Climate, Geology, Soils*
- *Water*
- *Plants*
- *Animals*
- *Forest, Woodland, and Range Resources and Management*
- *Energy and Global Environment*
- *Interpretation, Collaboration, Citizen Science*

Capstone Projects



- Outreach information about controlled burns
- Monarch milkweed habitat with 1st graders
- Sycamore Creek Preserve invasive plant removal
- Brochure on fish toxicity levels in freshwater fish
- Salmonids of Lagunitas Creek - A field guide
- Pronghorn surveys at Tejon Ranch
- Nature Trail Guide for outdoor education
- Field Guide to Fossils of New Brighton State Beach



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After certification

- Online portals for communication, logging volunteer hours
- Volunteer opportunities
 - Citizen science
 - Stewardship
 - Outreach/education
 - Program support
- Advanced trainings by UC and partnering orgs.
- Biennial statewide conferences



Imagine a community of local leaders trained on climate change information resources and involved in local adaptation efforts.



Participants in this community of practice are capable of sharing sources of climate change information and feel confident in their ability to contribute to climate solutions.



Climate Action Stewards

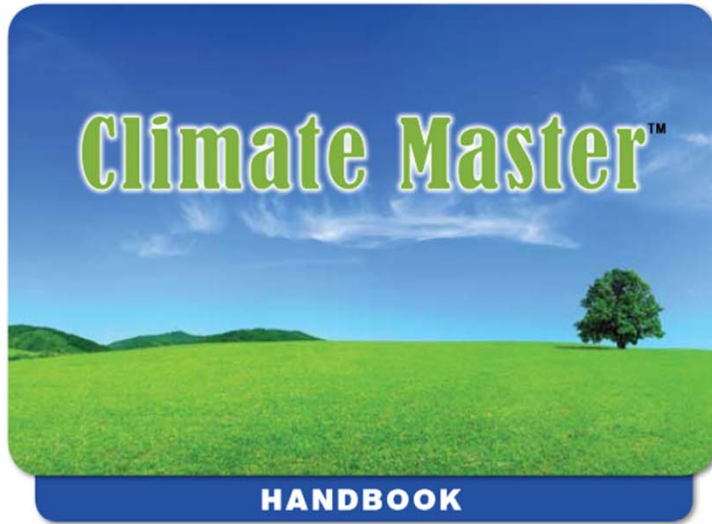
“Climate change adaptation – to be politically feasible and socially acceptable – will not happen without broad public support.”

- Moser and Pike (2015) who refer to public engagement as the “Great Unmet Need.”



- 1) Build a larger cohort of climate communication/engagement experts
- 2) Train the trainers;
- 3) Financially support for communication/engagement efforts
- 4) Continuously build the community of practice
- 5) Evaluate communication and engagement efforts.”

Other states getting started: Oregon and New Mexico



A Step-by-Step Guide to Help People Curb Their Household Climate Impact



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Climate Change Communication
Local Food and Agriculture
Renewable Energy
Water
Land Management
Consumption and Waste
Permaculture
Green Architecture/Green Businesses
Transportation)

We are proposing

- Training workshops
 - The target audience = non-formal educators, California Naturalists & Instructors, local decision-makers, and land managers.
 - Start with SF Bay Delta, Sierra, and South Coast
 - Publication as necessary background
 - Climate change drivers, extreme weather events, associated natural hazards, vulnerabilities of specific areas in the state, and adaptation strategies.
 - Review of local and state adaptation plans
 - Introduction to new online resources related to extreme weather and adaptation (resilience tool kit, visualizations, extreme weather, Basin Characterization Models)
 - Community of practice
 - Regular communication with updates on climate science
 - Opportunities to convene and hear from scientists and each other



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IN SUM...

- Community engagement is needed to build climate conviction.
- We can do it by investing in engaging local leaders and practitioners who are trusted sources in their communities.
- So we can put our best climate science to work and stave off the worst case scenarios and adapt to what is to come.

