

Fire Forward

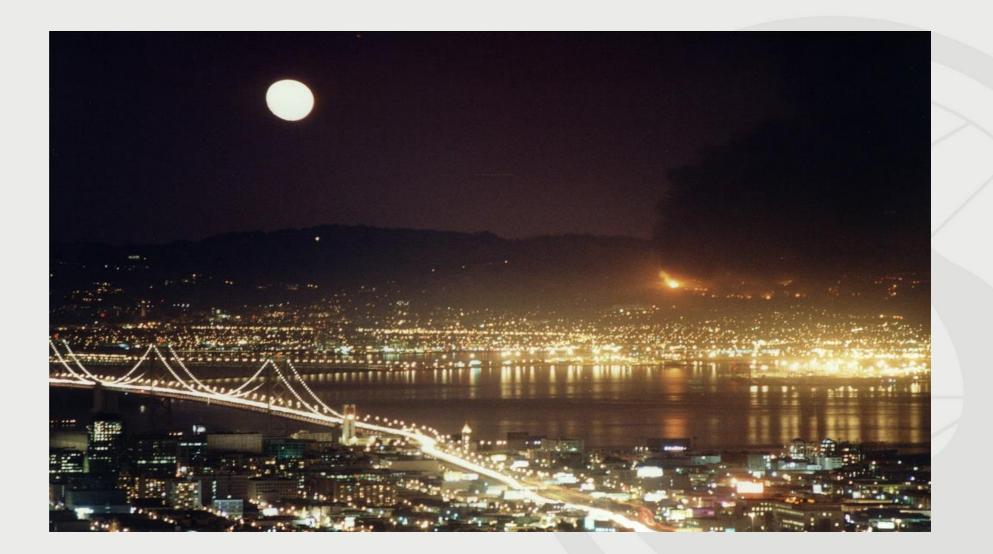
the Good Fire Alliance

May 16th, 2019



Jared Childress, Prescribed Fire Specialist ACR's Fire Forward

October 19th 1991





October 8th 2017

Neighbors Coming Together To Do The Work



Prescribed Herivory a.k.a. Mobile Goat Strike Force



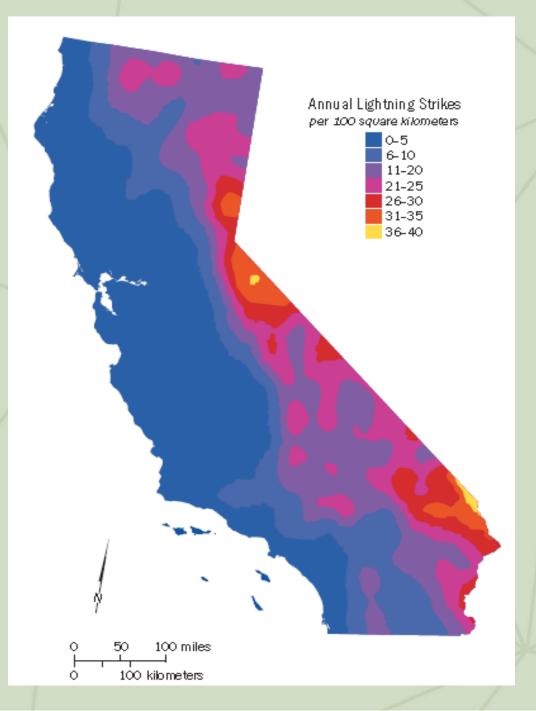
Community Run Livestock to maintain cleared areas

What do these "Mega" Fires mean?

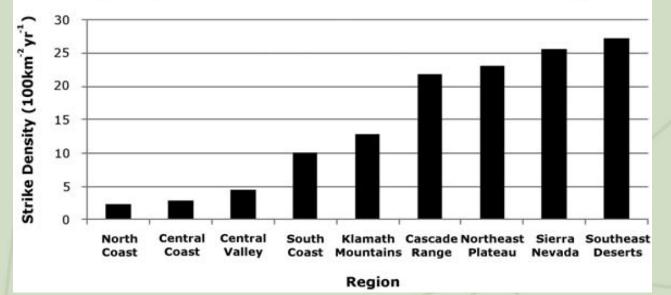
Is it Climate Change and the "New Normal" Or something else?

A history of fire

Prehistoric fire area and emissions from California's forests, woodlands, shrublands, and grasslands Stephens et al. 2007. Forest Ecology and Management, 251(3), 205-216. "Approximately 1.8 million ha burned annually in California prehistorically (pre 1800). Our estimate of prehistoric annual area burned in California is 88% of the total annual wildfire area in the entire US during a decade (1994-2004) characterized as "extreme" regarding wildfires. The idea that US wildfire area of approximately two million ha annually is extreme is certainly a 20th or 21st century perspective. Skies were likely smoky much of the summer and fall in California during the prehistoric period. Increasing the spatial extent of fire in California is an important management objective."



Lightning Strike Density in California Regions (1985-2000)



Cuthrell, Rob Q., et al. "A land of fire: Anthropogenic burning on the central coast of California." *Contemporary issues in California archaeology* (2012): 153-172. "Impacts of Native American burning [were] highest near larger population centers in Coastal California and the Central Valley where lighting ignitions were rare (Keeley, 1982, 2002, 2005; Stephens and Libby, 2005)."

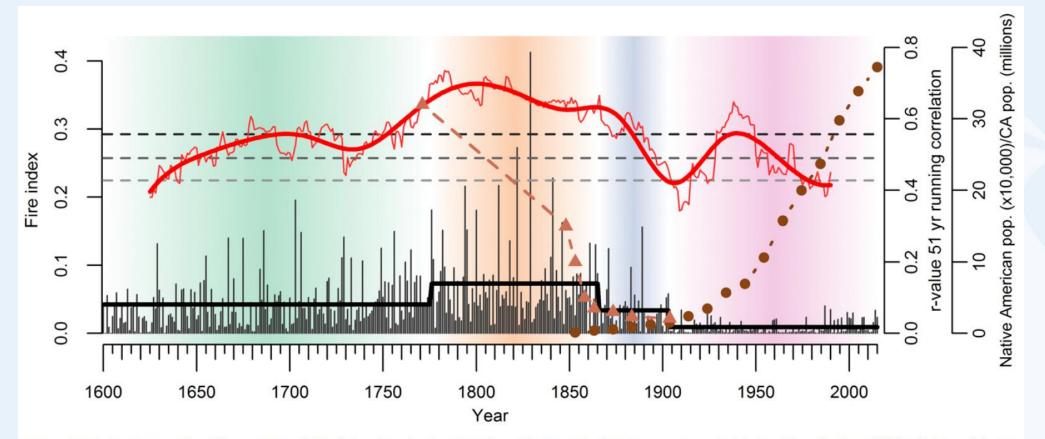


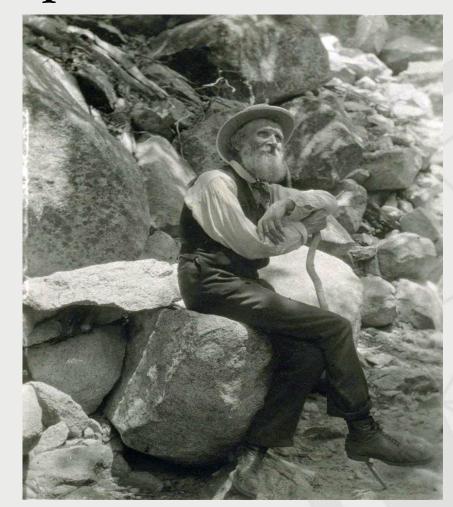
Fig. 3. Variation in strength of fire-moisture (60) relationships (i.e., PDSI) and population size of Native Americans (16) (triangle) and others (19) (circles) in California. The fire regime periods are indicated by shading as in Fig. 2. The *r*-values are 51-y running Pearson product-moment correlation coefficients of PDSI (inverted for presentation) and fire index is plotted on the 26th year of the window. Statistical significance (P < 0.05, P < 0.01, P < 0.001) is shown by increasingly dark dashed lines.

(Taylor et al. 2016. Sociological transitions trigger fire regime shifts and modulate fire)

Fire Return Intervals (FRI) for Regionally Present Communities		
Plant Community	Median FRI	High FRI
Black Oak	2	8
Oak Woodlands	2	11
Fescue Oatgrass	3	8
Coastal Sagebrush/Woodland	5	20
Redwood	10	30
Mixed Evergreen	10	30
Riparian Corridors	13	47
Coastal Sagebrush	20	40
Chaparral	30	70

(Taylor and Skinner 2003, Skinner and Chang 1996, Everett 2008, Stephens et al 2007 and many more)

John Muir and early environmentalism. A product of colonization.



First Yosemite trip: 1868 Mariposa Battalion: 1850





Bouverie 2017 Planned Burn Units and Vicinity

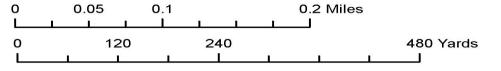
Legend

View Trail Unit

Upper Pasture Unit

----- Dirt Road/Trail

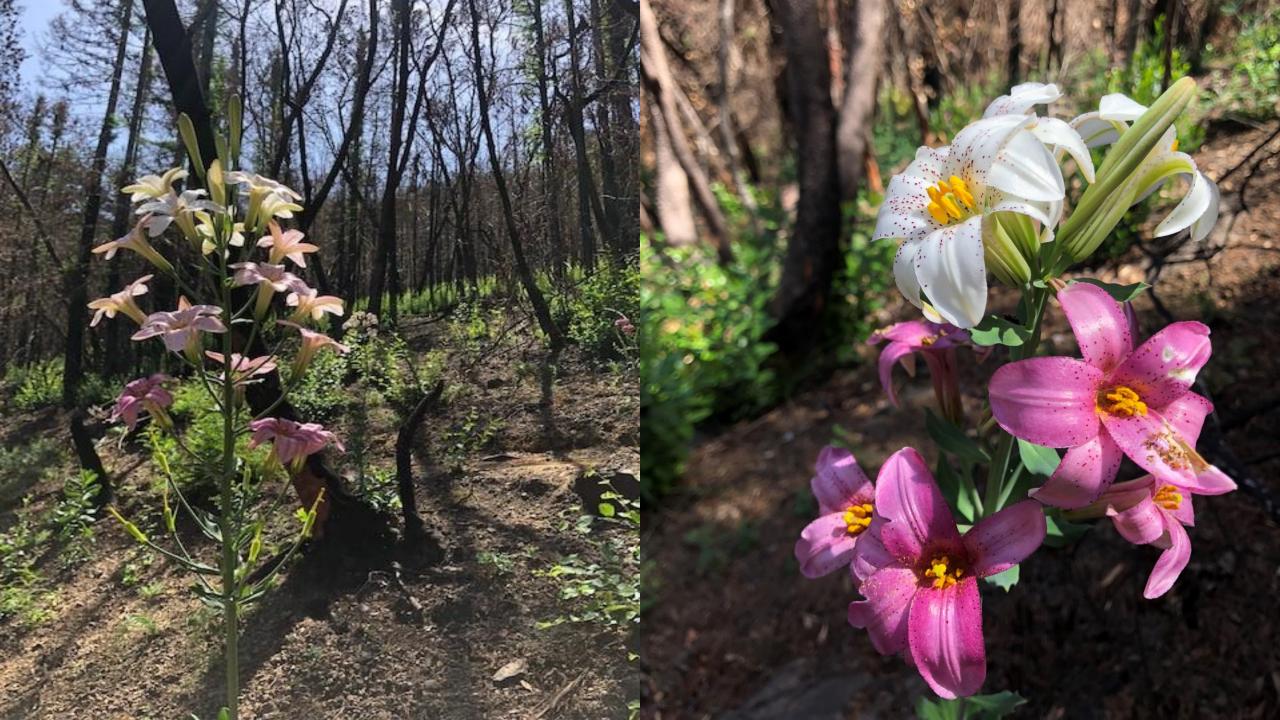
Bouverie Preserve Boundary





Nuns Fire









AUDUBON CANYON RANCH

FIRE FORWARD

Building Ecosystem Resiliency Together

Fire Forward regional program:

Organize Community

Teaming up with private landowners, public agencies, tribes and conservation partners around a shared purpose of effective fuel management.

Develop Capacity

Building our region's capacity to accomplish this work through prescribed fire training and equipment sharing.

Implementation

Working with partners to implement ecologically sound fire and fuels treatments on ACR preserves and partners' lands.



Community Organizing

Teaming up with private landowners, public agencies, tribes and conservation partners around a shared purpose of effective fuel management

The Good Fire Alliance

Cooperative Burning

Grazing for fuel reduction

Thinning and shaded fuel breaks



Bay Area Prescribed Fire Council's Spring Meeting 2019



Conference Thursday May 2nd Field tour Friday May 3rd Morgan Hill, CA. RSVP to Jared.childress@egret.org

Bay Area Prescribed Fire Council (B.A.Rx.F)





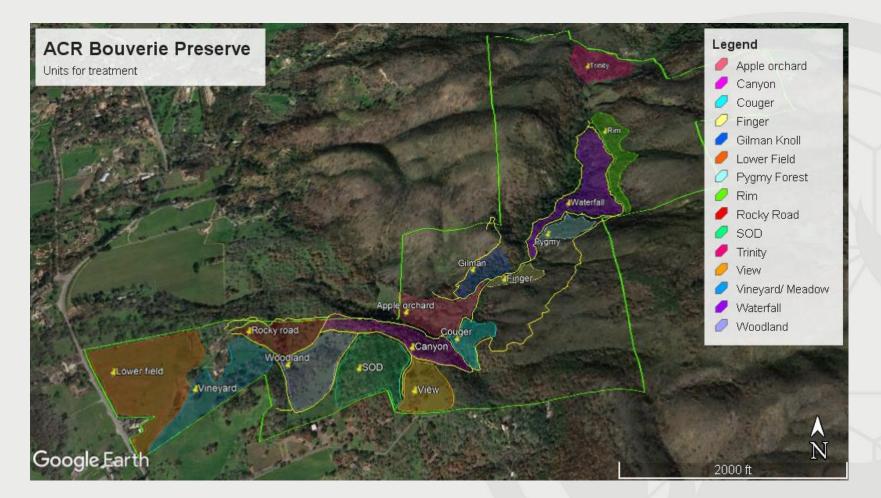
Cal Fire Sonoma County Parks UC Berkeley Amah Mutsun Tribe **State Parks** Sonoma Ecology Center Marin County Fire SF PUC Jenner Headlands Preserve EBMUD UC Cooperative Extension Marin Water Golden Gate NP Conservancy Pepperwood Moraga Orinda Fire Department EB Parks Mid-Pen Open Space CA Fire Science Consortium Bay Area Air Quality-Management District





Sonoma Valley Wildlands Collaborative

ACR, Sonoma Land Trust, Sonoma County Parks, State Parks, Sonoma Mountain Foundation, Ag. And Open Space



18,000 acre envelope 2019 Cal Fire Grant: \$1,055,575

Capacity Development

Building our region's capacity to accomplish this work through prescribed fire training and equipment sharing

PENT

Training and Workshops









Truck and Fire Trailer/ Cache



Implantation

Working with partners to implement ecologically sound fire and fuels treatments on ACR preserves and partners' lands

Cooperative Rx Burning on



ACR Lands Private Lands Partner Organizations

Thinning





Before and After Monitoring



How do these treatments relate to Climate Change?



Forest resilience



Thank You!

Fire Forward is funded in part by:

- Farley Family Charitable Foundation
- **Federated Indians of Graton Rancheria**
- California Forest Improvement Program
- Cal Fire

and many generous members and supporters of ACR.

We welcome your involvement

- Become an ACR member
- Join the Good Fire Alliance
- Share @AudubonCanyonRanch
- Jared.Childress@egret.org

LEARN MORE > www.egret.org