



AUDUBON CANYON RANCH

FIRE FORWARD

Building Ecosystem Resilience Together

Fire Ecology

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Fire Forward

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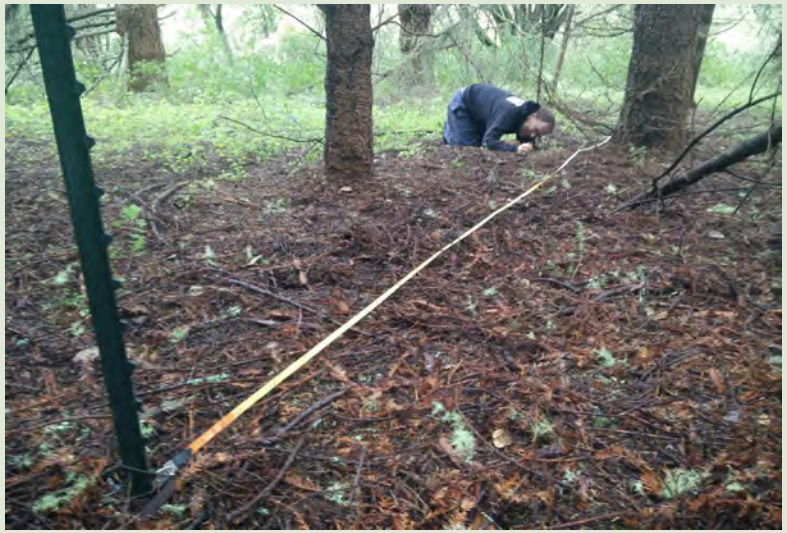
AUDUBON CANYON RANCH acr conservation in action

Fire as a Management Tool

- Ecosystem Resilience
  - Maintain and steward ecological diverse habitats that have a wide capacity to maintain integrity within the framework of a changing climate and human environments
  - Benefit species dependent on or benefit from fire
  - Establish and maintain understory diversity
  - Fuels management
  - Maintain and promote cultural resources

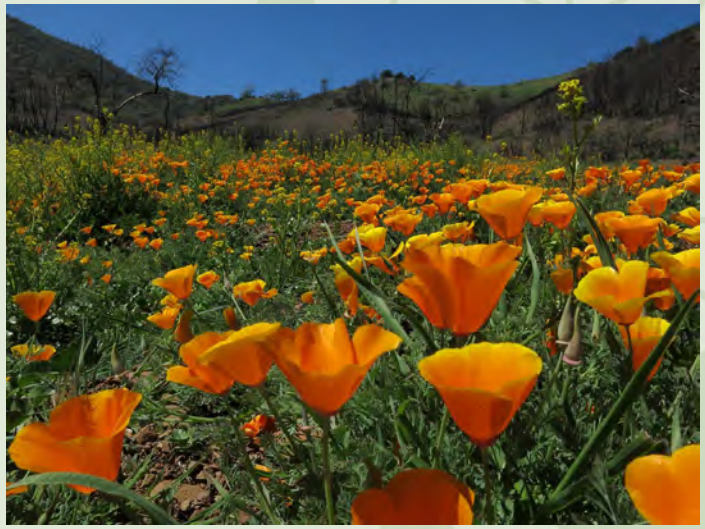
Fire as a Management Tool

- Fire effects are diverse
  - Conservation, Safety, Fuels Goals and resource results need to be clearly stated and potential fire effects understood
  - Understanding species and communities response to fire events
  - Monitoring outcomes



Fire Ecology

- Fire Adaptation of Species
- How Fire Shapes Vegetation Communities
- Fire Timing and Frequency
- Fire Behavior



Species Survival Strategies

- Resisters
- Sprouters
- Seeders
- Invaders
- Avoiders

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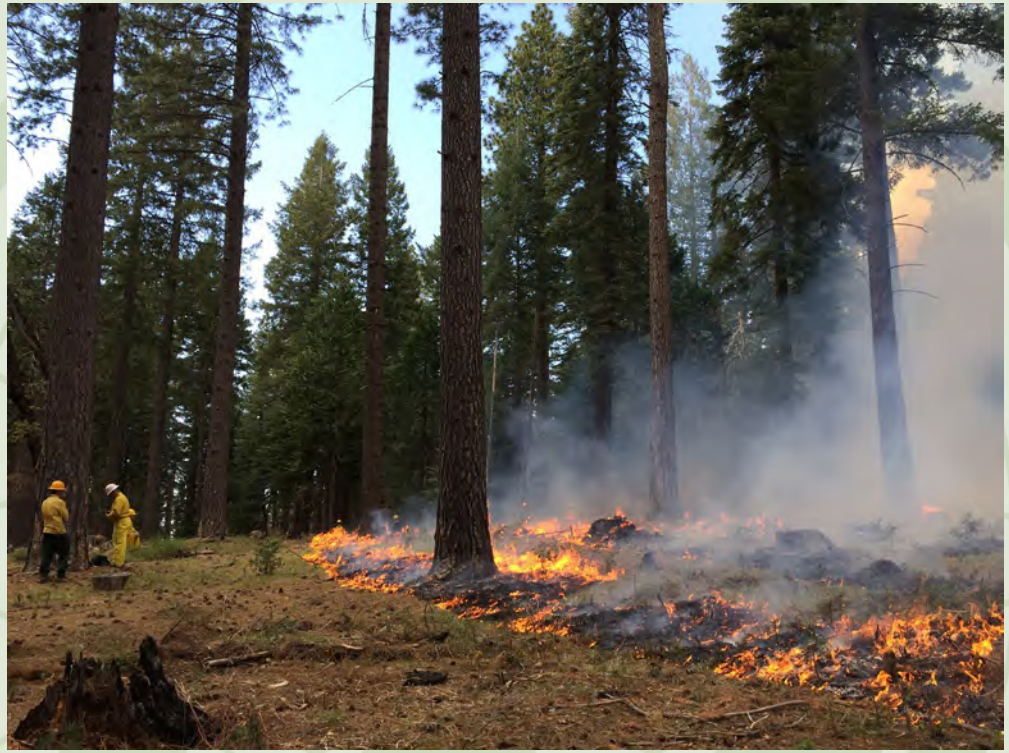
Resisters survive moderate to low-intensity fires with little damage. Adaptations include Thick bark, deep roots and shedding of their lower branches. Examples include, ponderosa pine, sugar pine, and Douglas-fir



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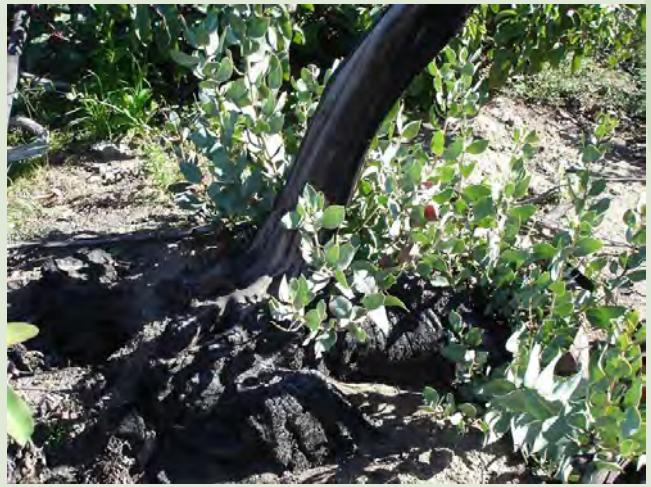
Sprouters resprout from their roots, trunks, limbs, and/or crown after a fire. Examples include, black oak, aspen, and madrone.



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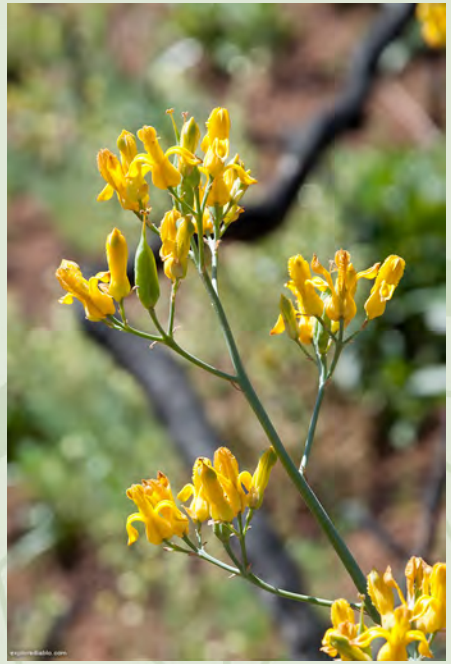
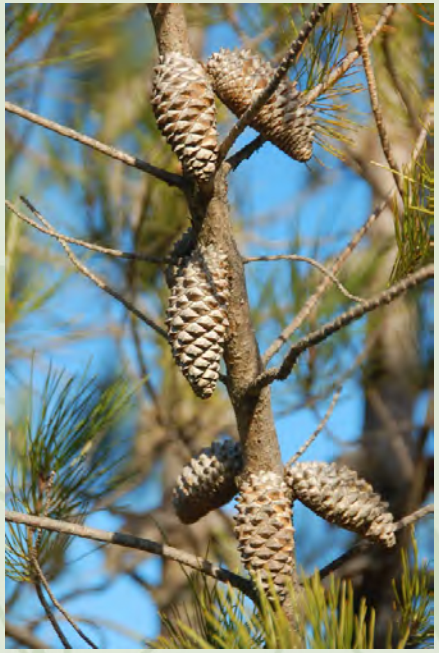
Seeders are species whose seeds germinate after fire often requiring germination cues from smoke or heat. Some examples include: buckbrush,lodgepole pine, and manzanita.





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Invaders can be native or non-native and disperse into recently burned areas rapidly, but do not require fire to germinate. Invaders tend to have seeds that are highly dispersive by wind, animals, or people.

Species Survival Strategies

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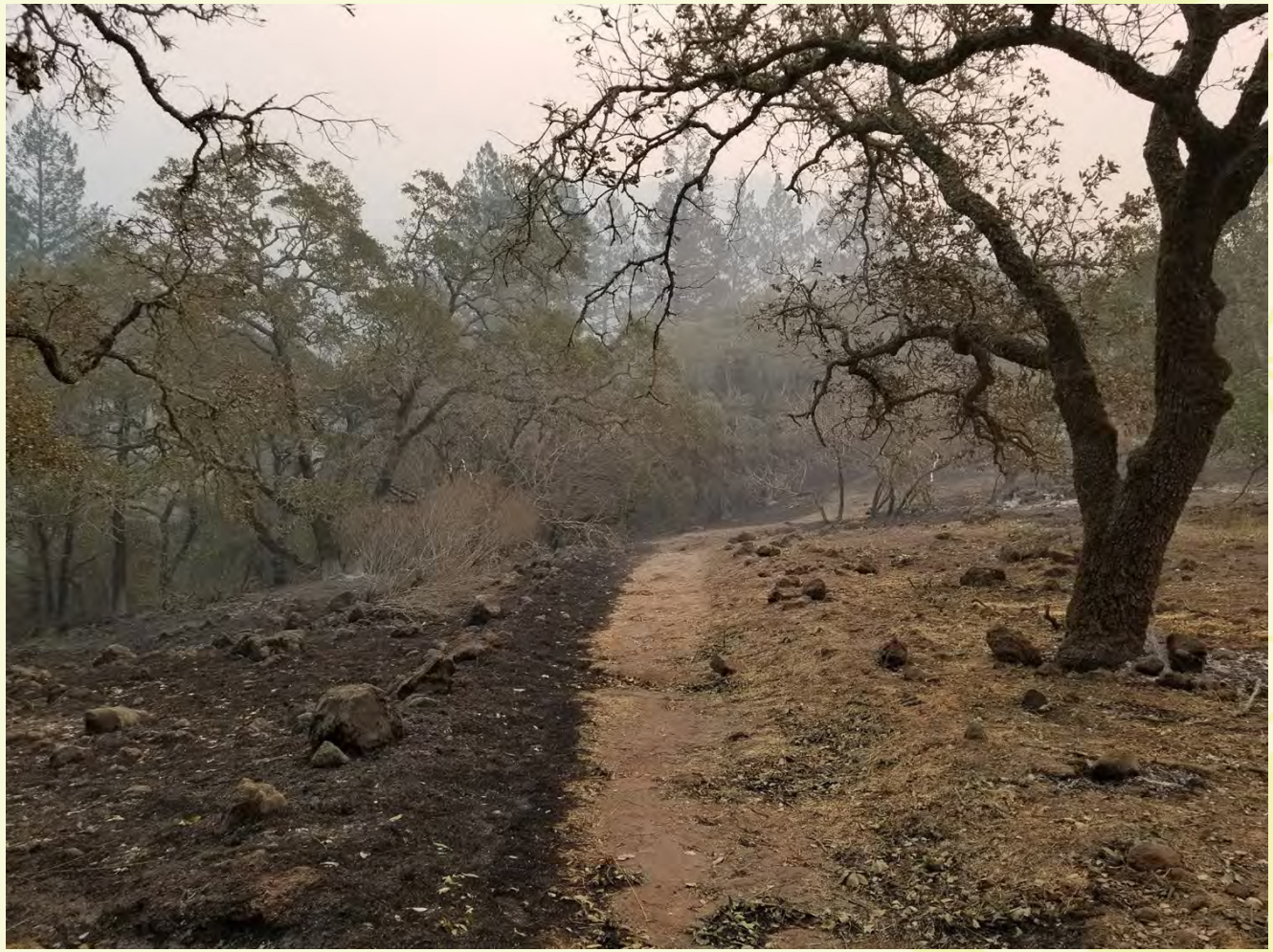
Avoiders are the least adapted to fire because and grow in areas no conducive to frequent fire like near water or in high elevations. Avoiders are a late successional species, thus they are not found in recently burned areas. white fir, vine maple, western red cedar, and western hemlock.

California Vegetation & Fire



Oak Woodland

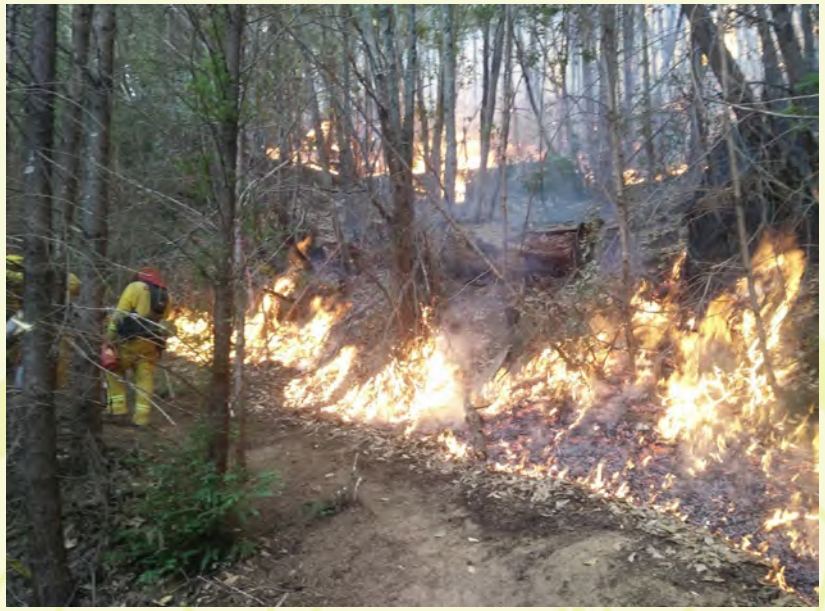
- Diversity of understory

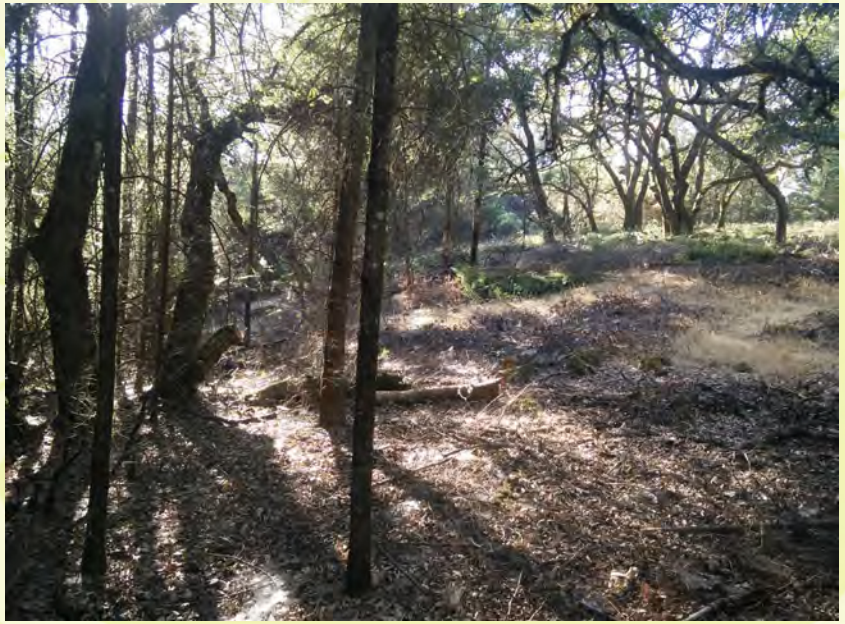
Oak Woodland

- Douglas fir encroachment

Oak Woodland

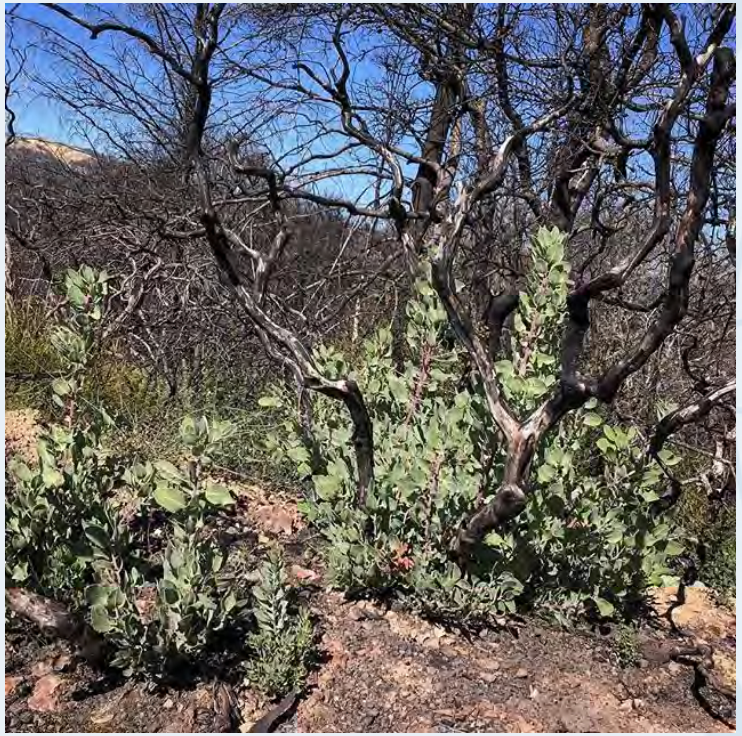
- Douglas fir encroachment

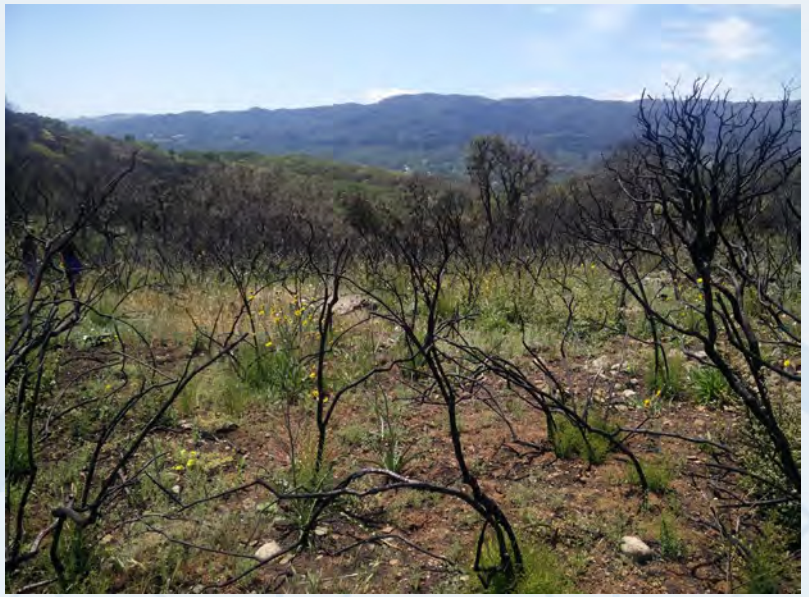


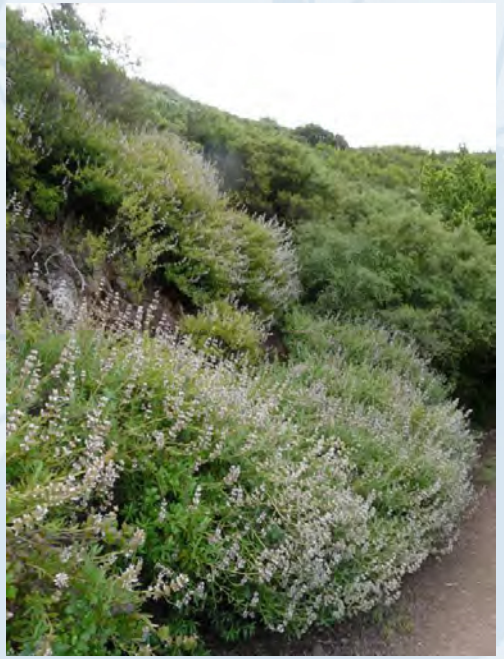


Chaparral

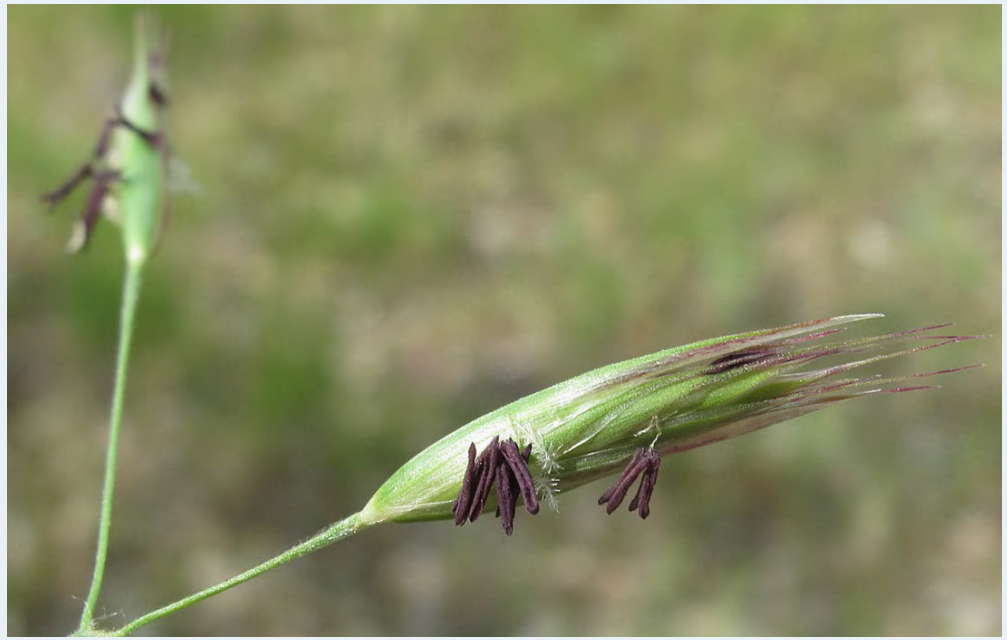
- Chamise
- Arctostphylos
- Coastal scrub

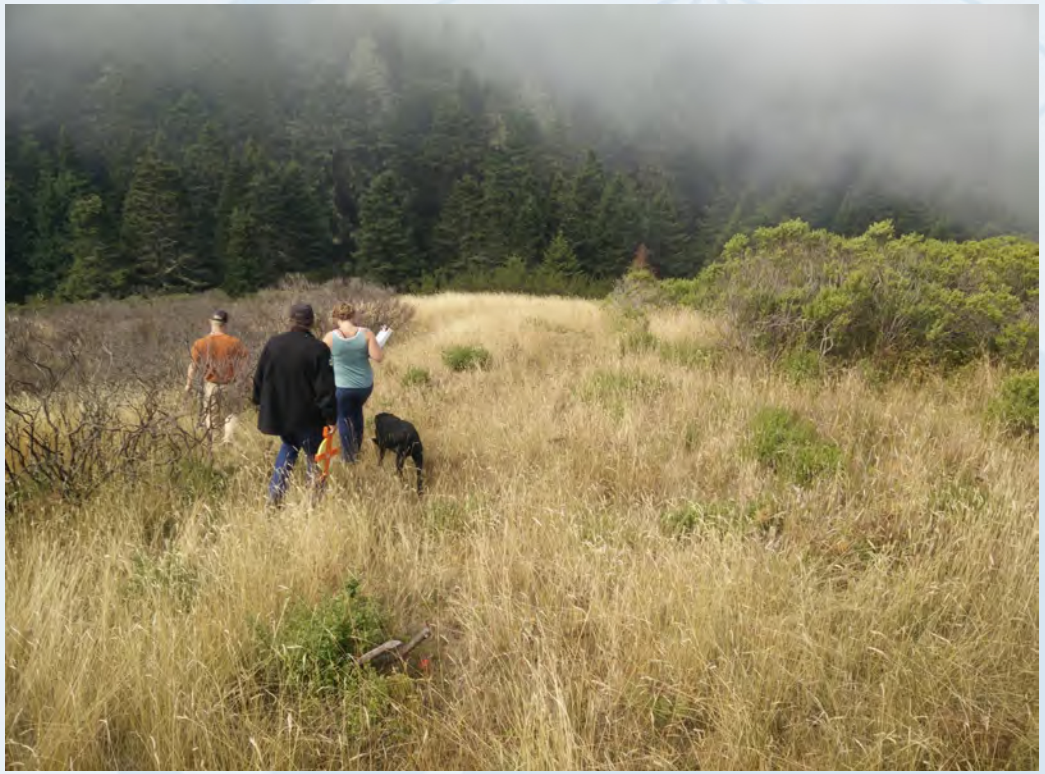




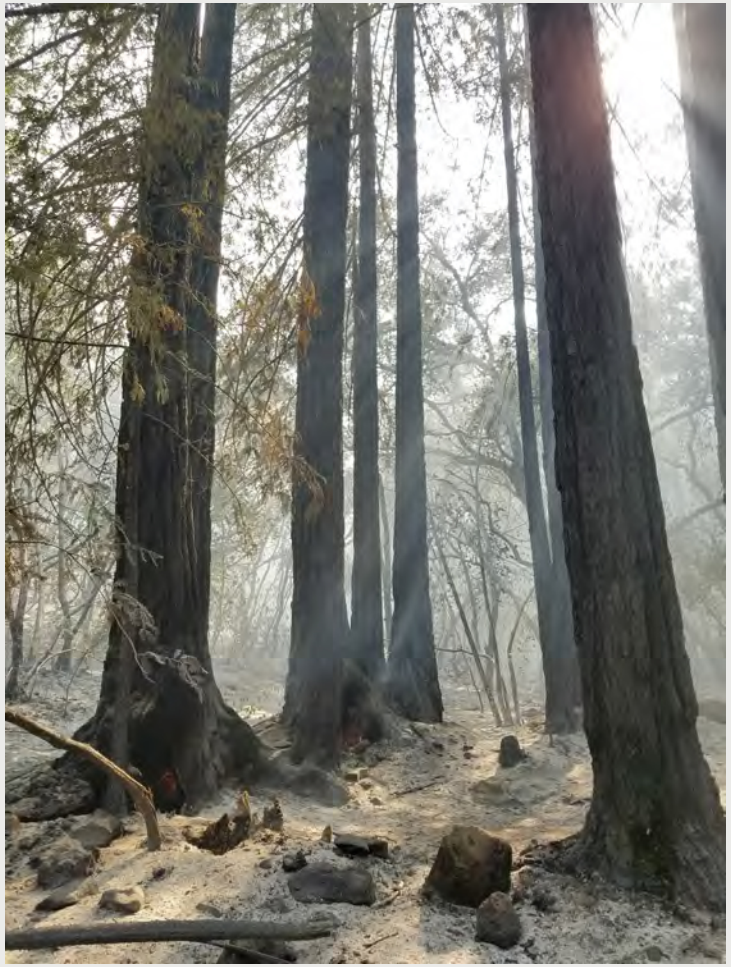


Coastal Prairie





Redwood Forest



Thank You!

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

and many generous members and supporters of ACR.

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