



SOUTHERN CALIFORNIA FOREST PESTS

Kim Corella
Cal Fire

Forest Entomology and Pathology Program

List of So Cal Forest Pests

- Goldspotted Oak Borer
- Invasive Shot Hole Borer
- White Pine Blister Rust
- Ghost Canker
- Acute Oak Decline
- Black Pineleaf Scale
- Pitch Canker in Torrey Pine State Park
- Fusarium Wilt in Palm
- Ips Beetles
- Armillaria



Goldspotted Oak Borer – Santa Clarita

17 OBSERVATIONS | 1 SPECIES | 8 IDENTIFIERS | 16 OBSERVERS

Places of Interest | Redo search in map

Map locations: Santa Clarita, Los Angeles, San Bernardino, Riverside, Anaheim, Irvine, Long Beach, Huntington Beach, Catalina Island, Santa Monica, Victorville, Amboy, Sheephole Valley Wilderness, San Bernardino National Forest, Joshua Tree National Park, Palm Springs, Palm Desert, Indio, Temecula, Salton Sea, Anza-Borrego Desert State Park, Brawley, Escondido, Carlsbad.

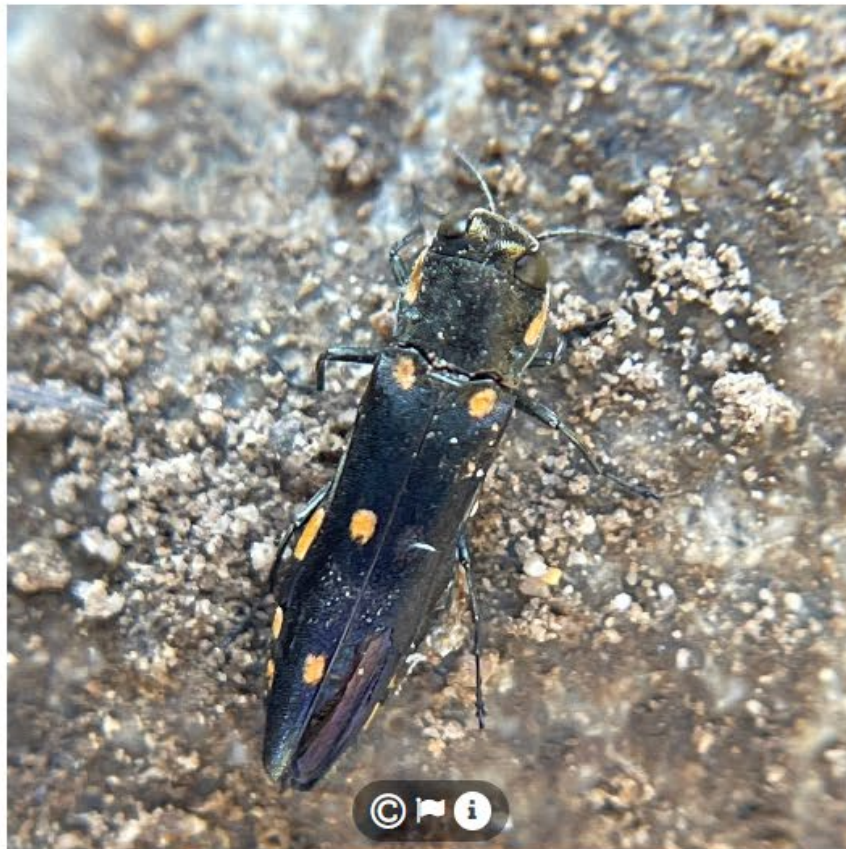
- Goldspotted Oak Borer** (*Agrilus auroguttatus*)
Indiana, US • January 2024
1 Jan '24
- Goldspotted Oak Borer** (*Agrilus auroguttatus*)
Warner Springs, CA... • Nov 24, 2023
1 3mo
- Goldspotted Oak Borer** (*Agrilus auroguttatus*)
Santa Clarita Wood... • Jul 9, 2023
Research Grade | 4 ★ 1 7mo
- Goldspotted Oak Borer** (*Agrilus auroguttatus*)
Orange County, CA... • Dec 7, 2014
1 10mo
- Goldspotted Oak Borer** (*Agrilus auroguttatus*)
Santa Clarita Wood... • Nov 24, 2023

Goldspotted Oak Borer – Santa Clarita

Goldspotted Oak Borer (*Agrilus auroguttatus*)

Research Grade

Follow



trailblazr

👤 10,436 observations

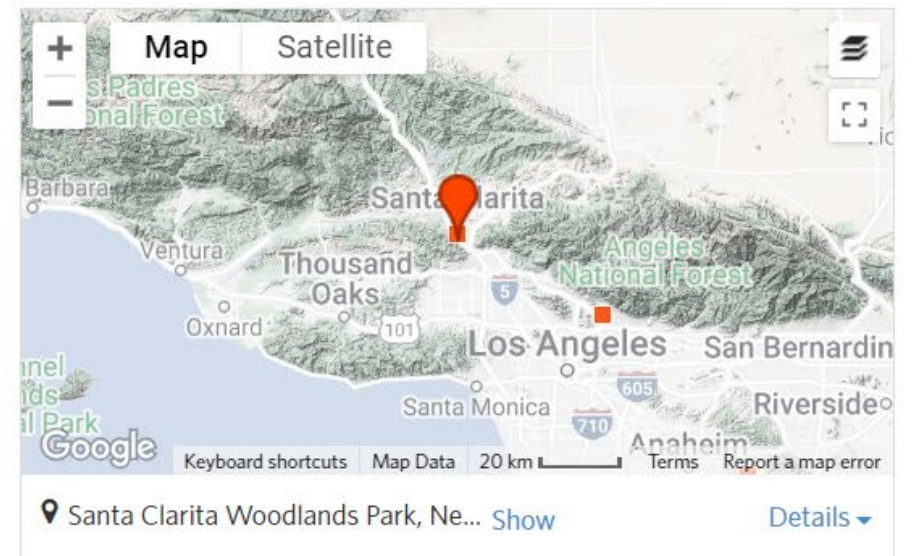


Observed:

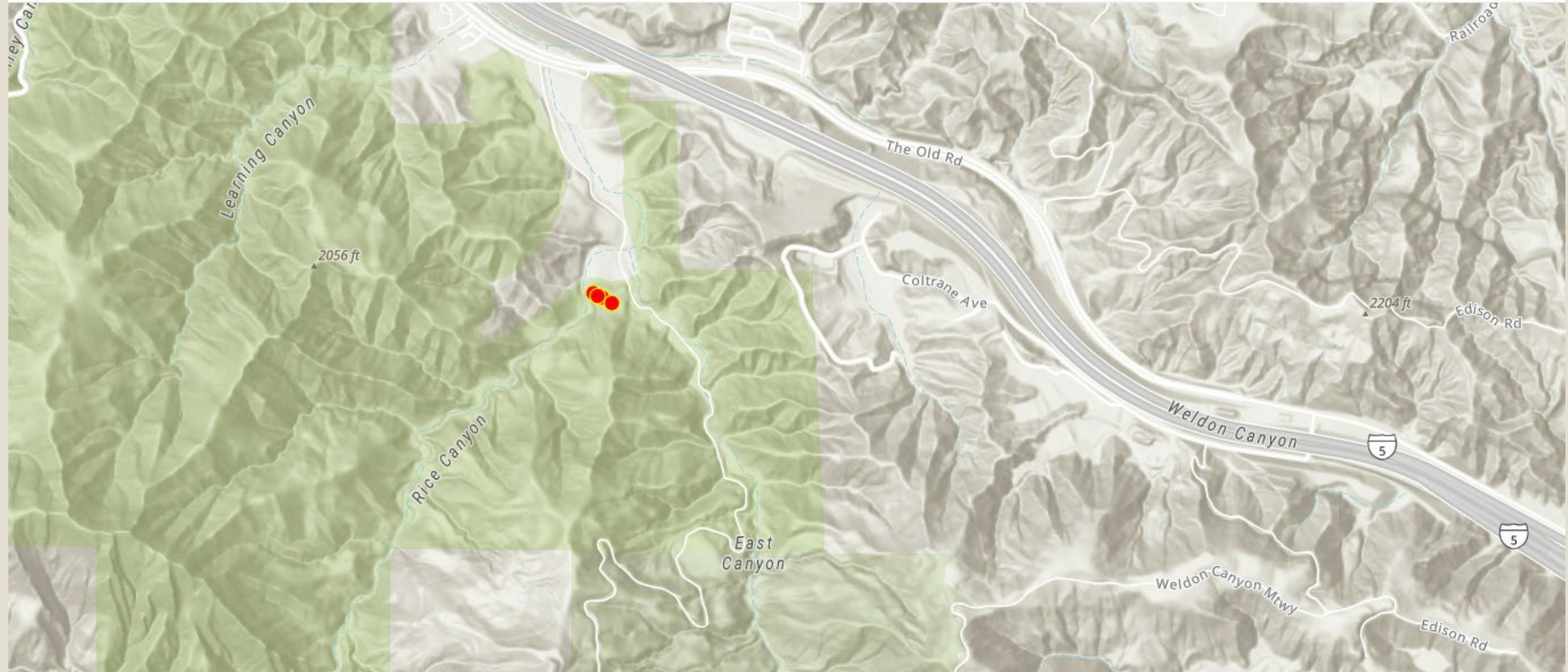
Jul 9, 2023 · 10:29 AM PDT

Submitted:

Jul 12, 2023 · 8:04 PM PDT



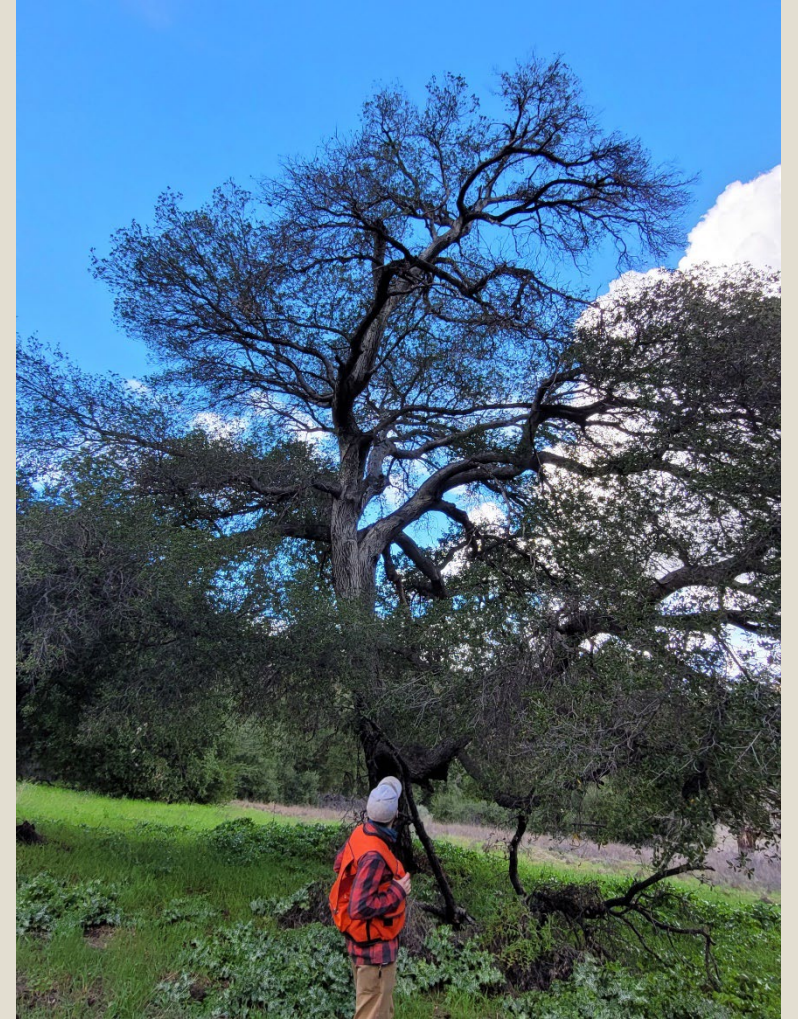
Goldspotted Oak Borer – Santa Clarita



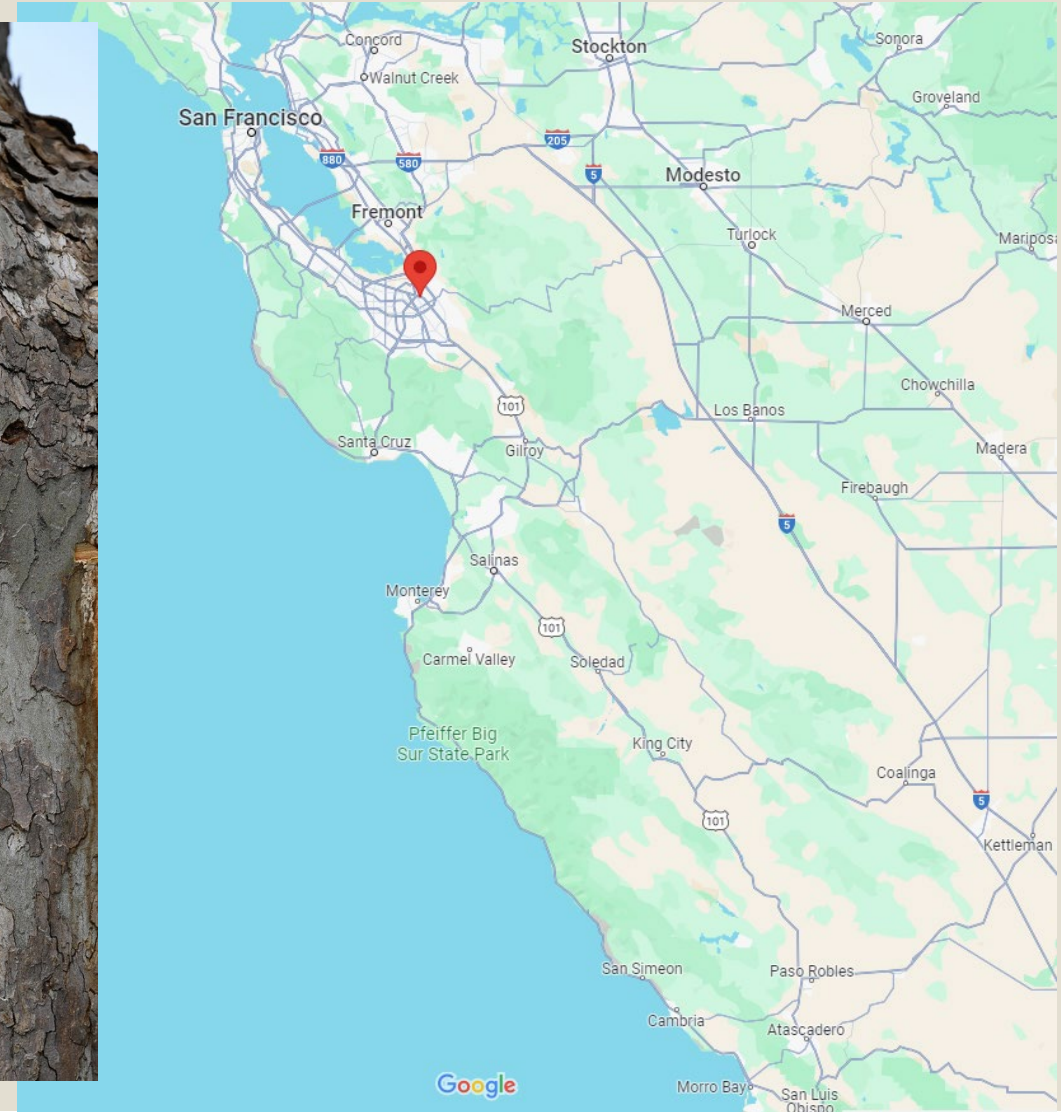
Goldspotted Oak Borer – Santa Clarita



Goldspotted Oak Borer – Santa Clarita



ISHB in San Jose, Santa Clara County



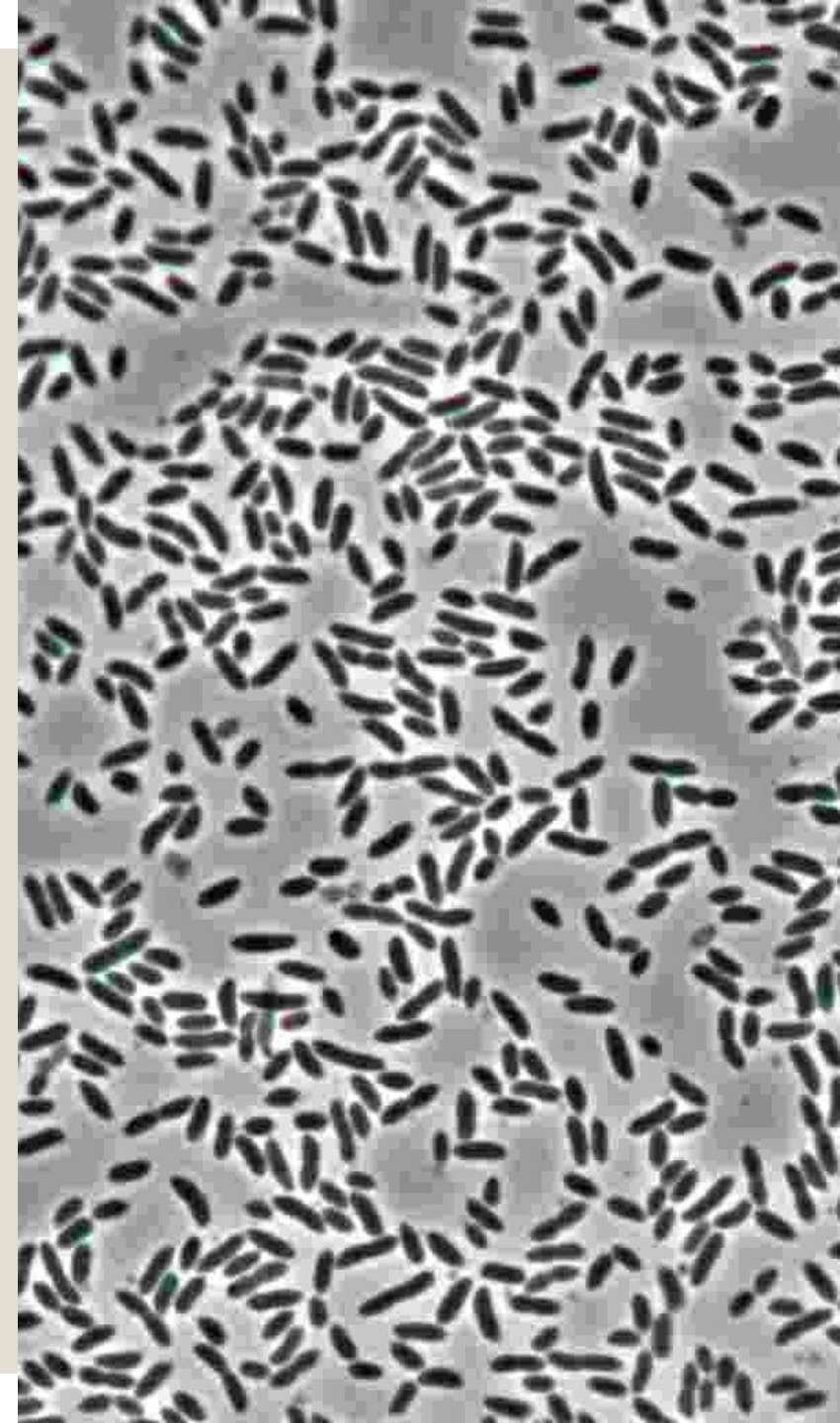
Acute Oak Decline

- Affects oaks in Great Britain and Iran
- Decline disease
- Occurrence with bark boring beetle
 - *Agrilus biguttatus*
 - Oak splendor beetle



Acute Oak Decline

- Associated with three types of bacteria
- *Brenneria goodwinii*
- *Gibbsiella quercinecans*
 - Were consistently associated with necrotic tissue, suggesting a role in lesion formation
 - Degradation of oak phloem and sapwood
- *Rahnella victoriana*
 - Present in both healthy and diseased trees may play a role in symptoms



Acute Oak Decline - California

- Hollister, CA
- Stem symptoms
 - Bark cracks with dark exudate
 - Cracks between bark plates
 - Inner bark necrosis
 - Sapwood degradation



Acute Oak Decline – Hollister, CA



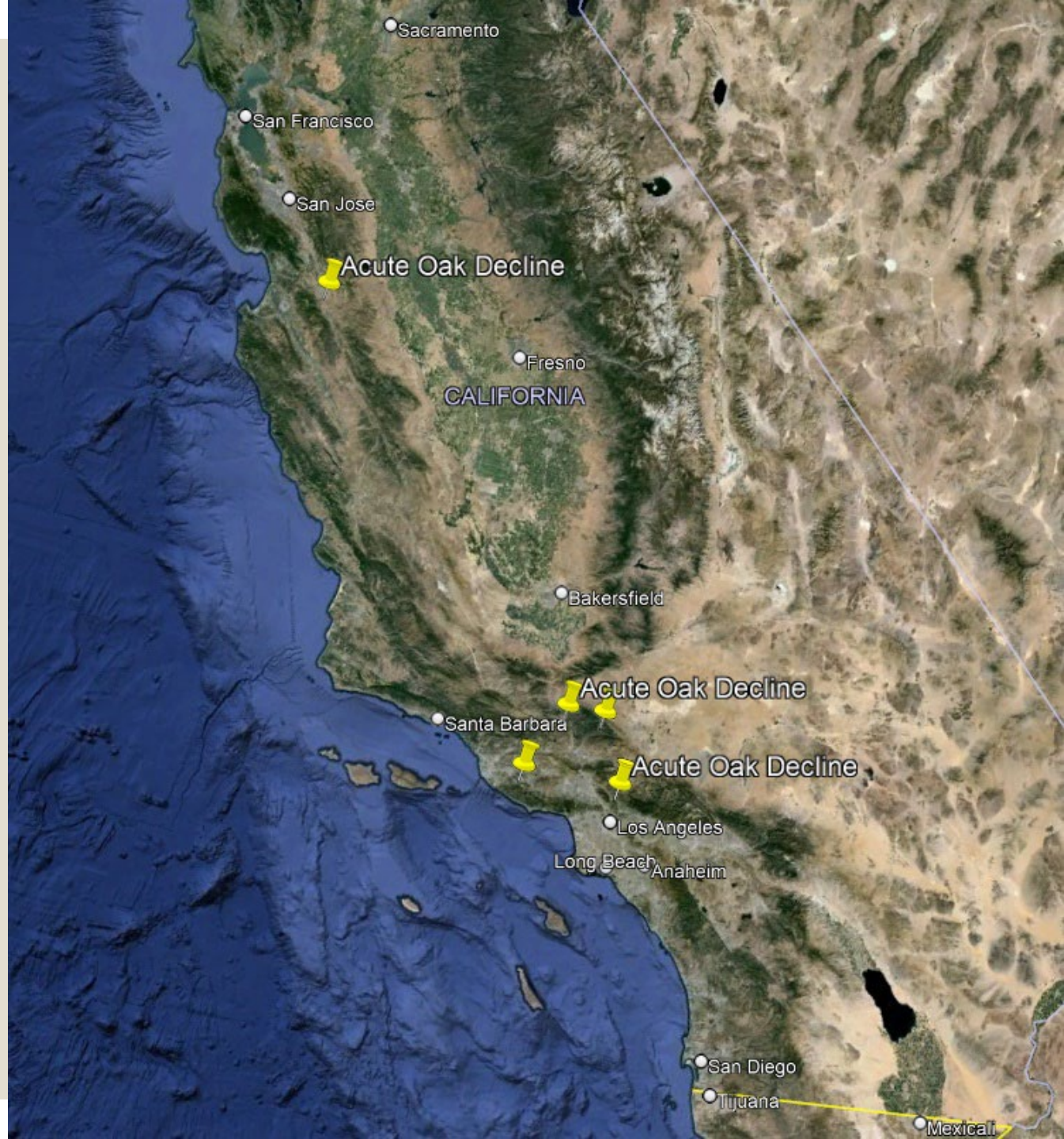
Acute Oak Decline – Castaic, CA



Distribution of Acute Oak Decline

Locations to date:

- Hollister, CA
- Castaic, CA
- Green Valley, CA
- Newbury Park, CA
- La Canada Flintridge, CA



Black Pineleaf Scale



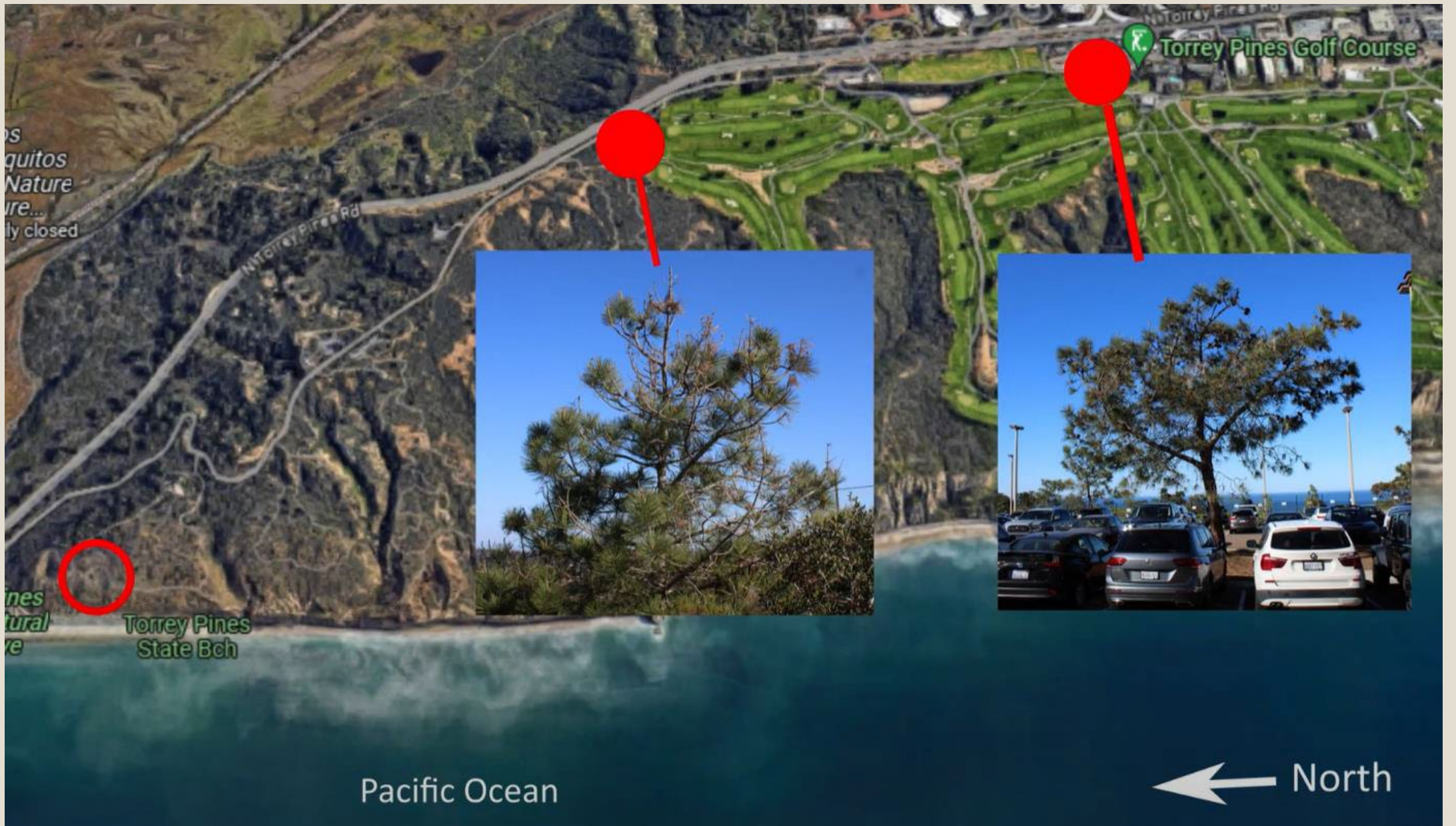
Black Pineleaf Scale



Pitch Canker – Torrey Pines

- Samples to CDFA Sept 2020 – *Diplodia scorbiculata*
- Tested in Sept 2021 – private lab – *Fusarium circinatum* – DNA and morphology
- Tested in October 2023 – private lab – *Fusarium circinatum* – DNA and morphology





os
quitos
Nature
ire...
ly closed

Torrey Pines Golf Course

Torrey Pines Rd

Torrey Pines State Bch

Pacific Ocean

← North

New Fusarium Wilt Disease of Palms

- *Fusarium oxysporum* f. sp. *palmarum*
- Hosts: Queen Palms, Mexican Fan Palm, Canary Island Date Palm and Mule Palm
- First report of this pathogen in California – 2019 in Fallbrook
- Wilt disease
- Initial symptoms – lower older leaves and exhibit one sided discoloration or necrosis.
- Eventually the healthy side turns brown and dies.
- Cross section of petiole will show internal discoloration.
- Causing leaf desiccation and death



7. In petiole cross sections of queen palms dying from Fusarium wilt of queen palm and Mexican fan palm, internal necrosis was not especially expansive.



4. One-sided necrosis, characteristic of Fusarium wilt of queen palm and Mexican fan palm, was present on the Fallbrook queen palms but the "healthy" side was already chlorotic.



5. In leaves on queen palms just starting to show one-sided discoloration from Fusarium wilt of queen palm and Mexican fan palm, pinnae on both sides of the rachis showed tip chlorosis although on one side it was markedly more intense and extensive.



2. Queen palms are dead or dying in Fallbrook, California from Fusarium wilt of queen palm and Mexican fan palm.

New Fusarium Wilt Disease of Palms

- Symptoms move up from lower leaves to upper leaves
- Death rapidly occurs – 2-3 months compared to Fusarium wilt of canary island date palms.
- Leaves do not droop or break but remain rigid in their natural position.
- Spreads by wind, tools, soil and water movement and maybe birds and insects.



12. In 2019 a queen palm in Long Beach showed classic symptoms of Fusarium wilt of queen palm and Mexican fan palm.

New Fusarium Wilt Disease of Palms

Management

- No cure exists
- Remove infested trees and root ball with everything still intact with a crane in one single operation.
- Proper disinfection of pruning and all other tools – hoes, rakes, shovels, soil probes, etc.

Table 1. Materials and Soaking Times for Disinfecting Tools for Fusarium Wilt Diseases of Palms (Elliott 2017).

Material	Solution	Soaking Time
household bleach (Chlorox [®])	25% (1 part bleach + 3 parts water)	5 to 10 minutes
pine oil cleaner (Pine So [®])	25% (1 part bleach + 3 parts water)	5 to 10 minutes
rubbing alcohol (70% isopropyl)	50% (1 part alcohol + 1 part water)	5 to 10 minutes
denatured alcohol (95%)	50% (1 part alcohol + 1 part water)	5 to 10 minutes

Armillaria

- John Hanna is looking for samples of Armillaria
- Ongoing surveys for Armillaria in California
 - DNA-based identification
 - Bioclimatic modeling
 - Managing Armillaria root disease under a changing environment
- Armillaria solidipes has yet to be confirmed in California
- Contact John Hanna – john.w.hanna@usda.gov to send samples and for more information.

The screenshot displays the iNaturalist Observations page for Honey Mushrooms in California, USA. The page features a map showing 9,887 observations and 7 species. Below the map, there is a list of species with their respective observation counts and photos.

Species	Observations
Honey Mushroom (<i>Armillaria mellea</i>)	4,708
<i>Armillaria sinapina</i>	1,092
Honey Mushroom (<i>Armillaria ostoyae</i>)	184
<i>Armillaria nabsnona</i>	99
Bulbous Honey Fungus (<i>Armillaria gallica</i>)	66
Austral Honey Mushro... (<i>Armillaria novae-zelandiae</i>)	4
Northern Honey Fungus (<i>Armillaria borealis</i>)	1