

Goldspotted Oak Borer and Oak Mortality

Quarterly Situation Report

October 1 through December 31, 2013

California forest Pest Council Authorizes Formation of GSOB Taskforce

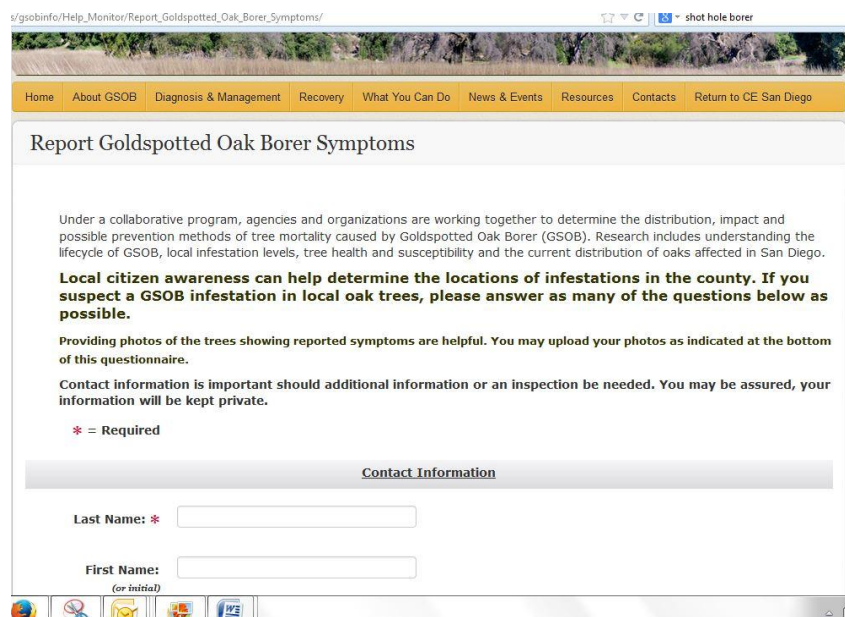
The Southern California Committee of the CFPC crafted a resolution calling for the formation of a GSOB Task Force which was presented and approved by the full CFPC at their November 21st annual meeting in Sacramento. Kevin Turner was asked to serve as the interim chair of the task force during its formation process. Kim Camilli (CAL FIRE Forest Pest Specialist) and Kevin Turner also gave updates on GSOB to the CPFC at that meeting.

Monitoring and Detection

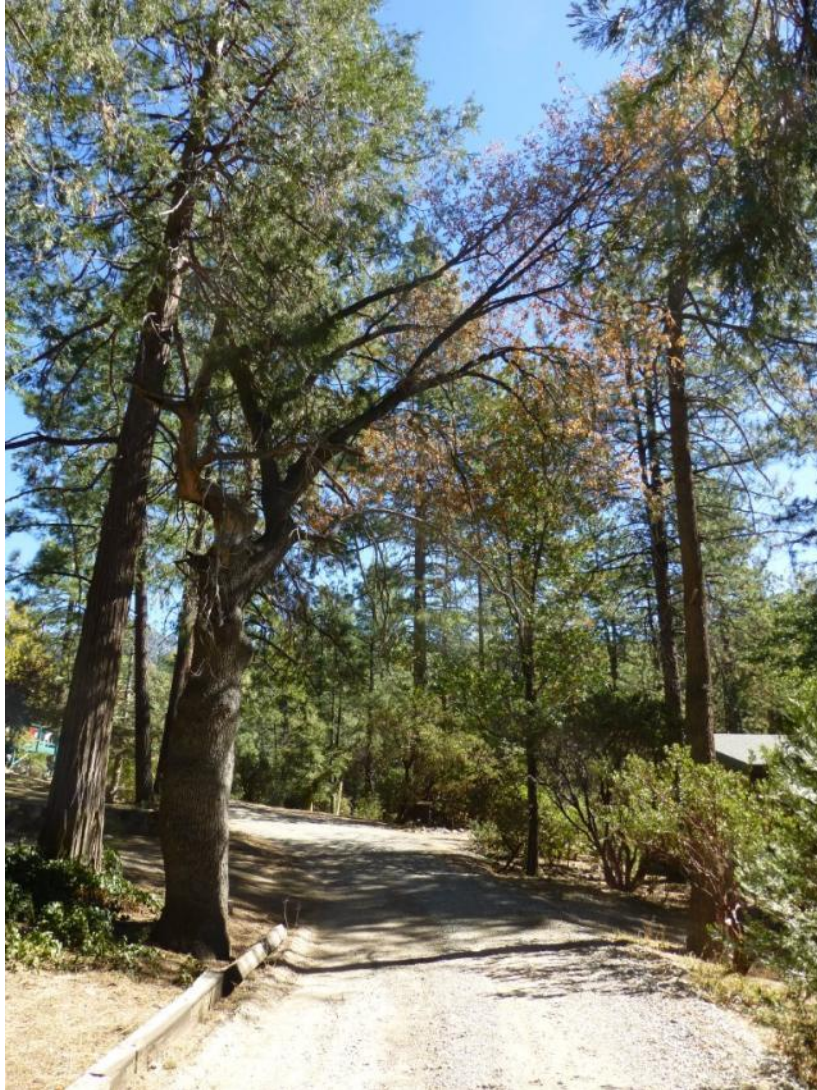
Follow-up on Reports of GSOB Made Through the GSOB.ORG Website

We continue to follow-up reports of possible GSOB attack that were submitted by the public through the gsob.org website or other means. Of particular concern was a report submitted by a trained and knowledgeable GSOB EWS volunteer of suspected GSOB-caused oak mortality at the Shipley Nature Preserve in the Orange County community of Huntington Beach. With the assistance of Orange County Agricultural Commissioner entomologist Nick Nisson, UC Cooperative Extension Specialist John Kabashima and CAL FIRE's Kim Camilli, it was determined that the insect activity observed by our volunteer was caused by western sycamore borer, not GSOB. The GSOB Early Warning System worked as intended and we are very thankful that it turned out to be a false alarm. The added benefit of this event is that many more folks in Orange County are now far more aware of the GSOB threat.

Other reports were submitted through the website for areas in San Diego County that proved to be GSOB-positive, but they were in areas already known to be infested. We also received a few reports of oak tree problems from central and northern California through the web site. None of them turned out to be GSOB; we try to direct these folks to someone who can assist them.



The screenshot shows a web browser window with the URL `s/gsobinfo/Help_Monitor/Report_Goldspotted_Oak_Borer_Symptoms/`. The page title is "Report Goldspotted Oak Borer Symptoms". The content includes a navigation menu with links: Home, About GSOB, Diagnosis & Management, Recovery, What You Can Do, News & Events, Resources, Contacts, and Return to CE San Diego. The main text explains the collaborative program and asks for citizen awareness. It includes instructions on providing photos and contact information. A "Contact Information" section has input fields for "Last Name: *" and "First Name: (or initial)". The browser's taskbar at the bottom shows icons for Internet Explorer, Firefox, and other applications.



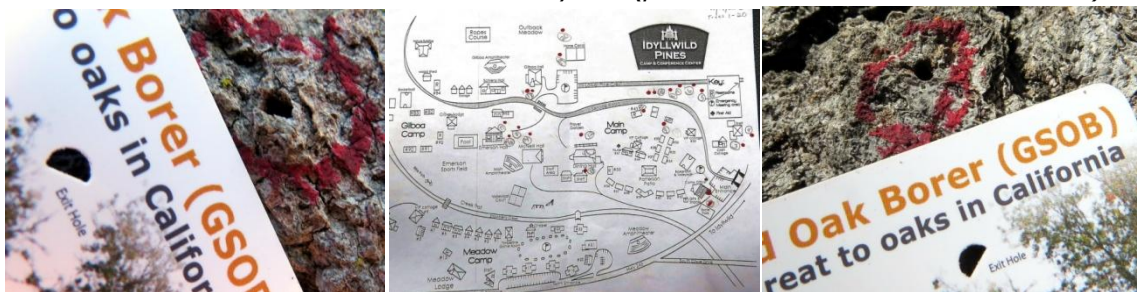
San Jacinto Mountains (Riverside County) Update

Six additional infested trees were discovered during this quarter making a total of **29** California black oaks (*Q. kelloggii*) confirmed to have GSOB in the vicinity of Idyllwild. The new trees were removed and ground promptly by Riverside County Fire's grant program or Southern California Edison, based on jurisdiction. So far, none of the GSOB-infested trees have been on national forest land yet despite its close proximity.

In partnership with CAL FIRE Unit Forester Gregg Bratcher, we have focused the volunteer tree survey teams on areas close to known GSOB-positive trees. Although inspections continue through the winter months, spring leaf out (or rather the lack thereof) will greatly aid detection. San Jacinto District personnel continue to monitor the adjacent USFS land.

Fall color? GSOB-killed black oak in Idyllwild the middle of summer.

Tools of the trade for volunteer EWS tree surveyors. (photo credit: volunteer Doris Lombard)

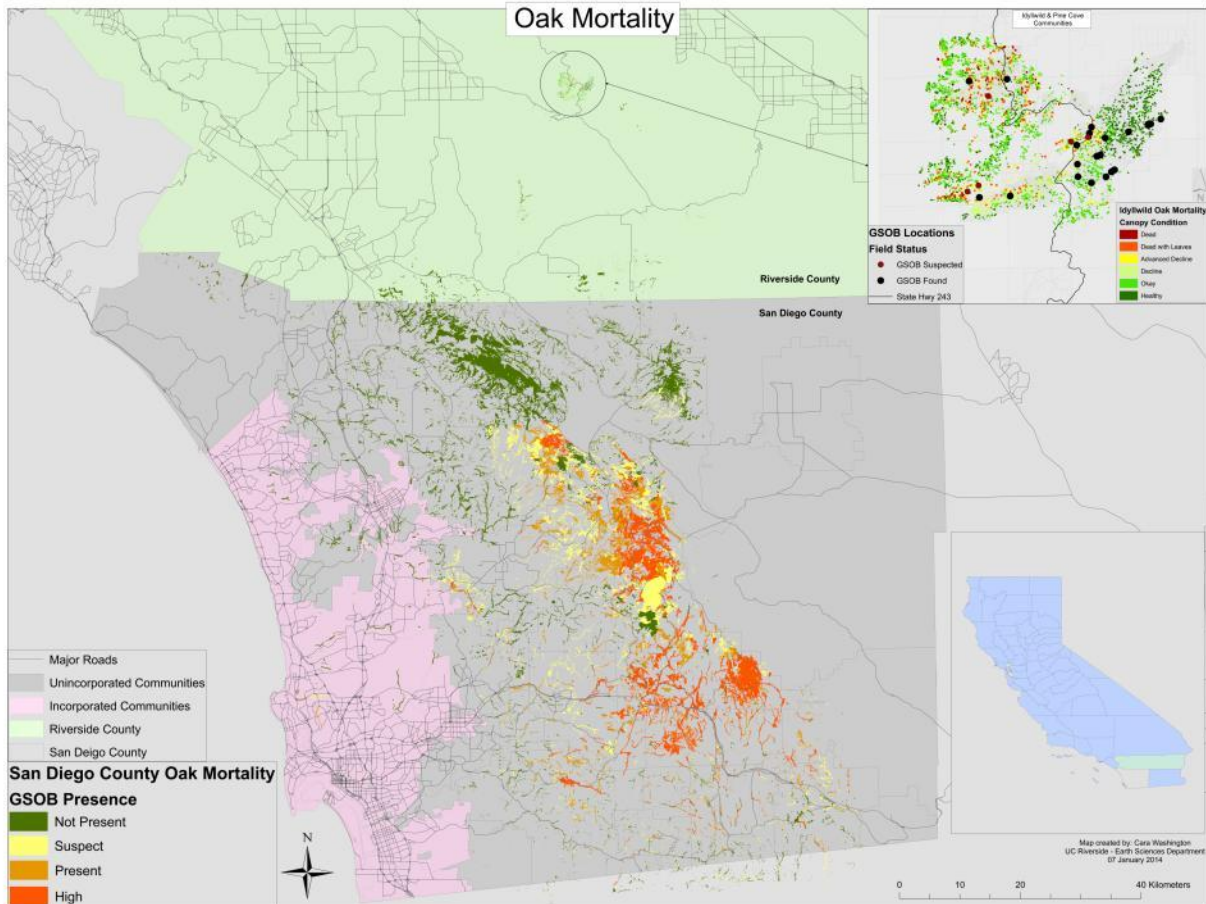


Idyllwild Private Land Oak Tree Surveys

The EWS volunteers in Idyllwild have surveyed a total of 118 parcels and inspected at total of 427 trees to date. Of all of the trees inspected, 15 trees were classified as dead or dying, 61 in decline, and 336 were determined to be healthy.

Mapping of GSOB Mortality

UCR graduate student Cara Washington has been incorporating physical site data for all surveyed trees that includes: slope, aspect, elevation, precipitation, soil characteristics, and GPS coordinates. To date, 84 sites out of 109 have been completed totaling 13,943 trees, there are still 25 sites comprising an additional 3,164 trees that are awaiting inclusion to the dataset. This additional information has the potential to enable identification of specific features that can impact the susceptibility of *Quercus agrifolia* to attack by GSOB.

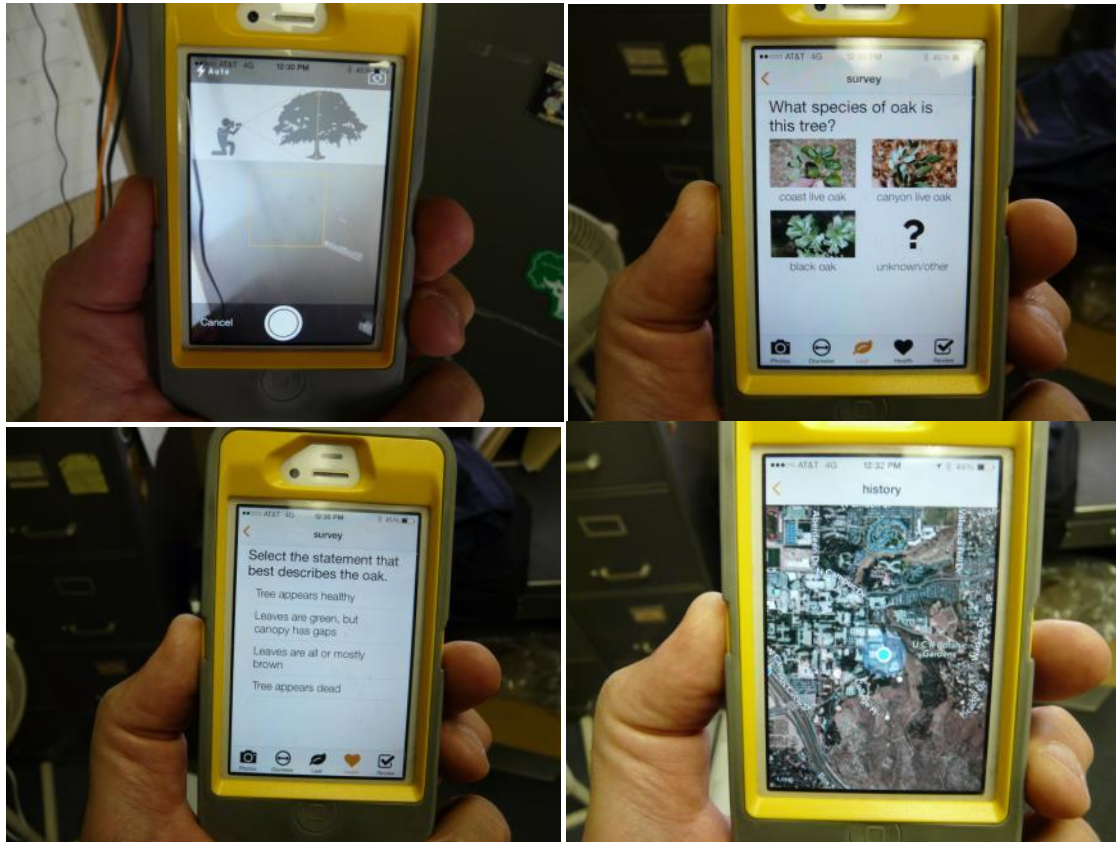


Map credit: Dr. Tom Scott and Cara Washington

Dendrochronology

We continue to collect tree cross-sections from GSOB killed trees whenever possible in both San Diego and Riverside in order to determine when the tree was attacked by GSOB, how many years it survived the attack, and to look for signs of other pests and pathogens that may have contributed to the decline of the tree. Tree cross-sections are sanded to an extremely fine finish, photographed and analyzed by trained student workers who examine and record data from the magnified photographs.

GSOB Early Warning System



We are developing a greatly-simplified GSOB mobile app useable by trained volunteers and lay people.

Outreach

GSOB ID Kits

We have produced 300 GSOB ID kits, have distributed over 250, and have requests pending for the last 50 kits. We plan to produce additional kits as long as there is a need and a funding source.

Participation in Committees

San Diego GSOB Steering Committee – There were no Steering Committee meetings held last quarter. A number of agency personnel have changed which will result in some new names being associated with the Steering Committee. We'll report on that next quarter.

GSOB Research Education and Outreach Committee – Anabele Cornejo of the Cleveland National Forest continues to chair these conference calls which are a great platform for sharing GSOB information and ideas. If you would be interested in participating, please contact Anabele at acornejo@fs.fed.us.

California Firewood Task Force – A number of us participate in CFWTF meetings representing GSOB concerns.

Collaborative Tools Outreach Calendar for the October through December 2013

EVENT DATE	EVENT NAME	CONTACT
12/8/2013	<u>Cabrillo National Monument Centennial</u>	<u>Jan Gonzales</u>
12/3/2013	<u>LA County Forestry Meeting</u>	<u>Kevin Turner</u>
11/20/2013 - 11/21/2013	<u>CA Forest Pest Council Annual mtg</u>	<u>Kevin Turner</u>
11/13/2013	<u>Los Padres NF Leadership Team</u>	<u>Kevin Turner</u>
11/7/2013	<u>Cuyamaca Outdoor School Faculty Training</u>	<u>Kevin Turner</u>
11/1/2013	<u>Santa Barbara County Agencies</u>	<u>Kevin Turner</u>
10/22/2013	<u>So Cal Committee CA Forest Pest Council</u>	<u>Kevin Turner</u>
10/2/2013	<u>GSOB Quarterly Update-Fall 2013</u>	<u>Jan Gonzales</u>

LA County Foresters Mtg.

Dr. Tom Scott and Kevin Turner gave a GSOB presentation to a group of 42 personnel from LA County Fire's Forestry Division at Chilao (San Gabriel Mountains) and provided them with GSOB ID kits, Don't Move Firewood Posters and other educational items. The LA County foresters are on the lookout for signs of GSOB and/or infested firewood.



Jan Gonzales continues to develop, produce and disseminate educational and outreach materials to GSOB partners, coordinate outreach meetings and keep the GSOB.org website up to date.

Outreach efforts and accomplishments from this quarter:

- Organized and hosted the GSOB Stakeholders web meeting and conference call on October 2, 2013. These brief online stakeholder meetings are held to provide updates, education and have dialogue with participants. Anabele Cornejo (USFS-Cleveland NF), Tom Scott (UC Berkeley/Riverside), Kevin Turner (UC Riverside), Cara Washington (UC Riverside) and Jan Gonzales (UCCE San Diego) facilitated and presented. Topics included oak woodland restoration, current firewood management issues, the Early Warning System mobile application and current GSOB outreach resources. Twenty-seven stakeholders participated in this session and post evaluation responses indicate that participants find these updates informative. Several comments encouraging us to continue these types of update sessions were received.
- In collaboration with the Ramona West End Fire Safe Council, the GSOB tabletop display and handouts were utilized to share GSOB information with visitors at the Wildfire Preparedness and Open House event in Ramona on October 19, 2013.
- Assisted Brian Cabrera (Entomologist, County of Santa Barbara) with the organization of a GSOB Training for Professionals held November 1, 2014. This was a brief, 2-hour training in which Tom Scott, Kevin Turner and Kim Camilli (Cal Fire) provided an overview on GSOB, oaks at risk and management strategies. This was a very successful event and collaboration. **Seventy-three (!)** people participated representing public and private land and tree care professionals. In addition to the presentations and handout materials, several GSOB ID kits were distributed.
- Partnered with Joyce Schlacter (BLM) to provide GSOB outreach at the Cabrillo National Park Centennial Celebration in San Diego on December 8, 2014. Once again, the GSOB tabletop display and handouts were utilized as we informed visitors about GSOB, its impact and firewood best management practices.

Jan and Joyce with GSOB display at Cabrillo NP.



- Organized a workshop to be held on February 6, 2014, “Managing Oak Pests and Diseases in San Diego County.”
- Continued to participate in GSOB Education and Outreach bi-weekly conference calls, manage the GSOB website and distribute GSOB information as requested.
- Development of GSOB online self-guided training modules and organizing a GSOB Symposium are also in-progress.

Cuyamaca Outdoor School Partnership

Tom Scott and Cara Washington conducted a "train the trainer" course with school faculty and one class of students. The school has included basic oak tree survey and GSOB attack ID in their curriculum. **12,000** San Diego county students are expected to go through the program t his year.



The Cuyamaca Outdoor school located in Rancho Cuyamaca State Park provides the perfect opportunity to spread the GSOB and Don't Move Firewood message to thousands of San Diego area students. Unfortunately, there is no shortage of GSOB-attacked trees for them to observe, even on school grounds.

City of San Diego Parks and Recreation

Betsy Miller and her staff are in the process of surveying the coast live oaks in their city open space parks in order to develop an Integrated Pest Management (IPM) plans. GSOB have attacked and killed trees in Marian Bear Memorial Park and were recently discovered in nearby Tecolote Canyon.

County of San Diego Department of Parks and Recreation – David Duran and Roger Covalt

Dos Picos Park	New	Removed	
Campground	2	10	Dos Picos Park: Two new GSOB-infested trees were discovered this quarter and 17 trees known to be infested were removed.
Day Use, Area 1	0	0	
Day Use, Area 2	0	1	
Day Use, Area 3	0	1	Heise Park: GSOB problems continue.
Service Road	0	5	

William Heise Park	#	Status
Picnic Area # 1	1	Continued oak mortality, mainly Coast Live but Canyon Oak now showing signs.
Entrance Drainage	1	Massive Coast Live mortality. Majority of trees have been removed
RV loop	1	Continued crown thinning, Coast live and Black oak mortality
Cabin Loop	1	Canyon oaks showing signs of infestation
Volunteer loop		Canyon oaks showing signs of infestation with continued thinning throughout.
Middle Loop	2	Continued oak mortality, mainly Coast Live.
YC1/Pond	2	Canyon oaks showing signs of infestation
Upper loop	5	Large amount of trees on verge on dying
Julian Estates		
Ranger residence # 1		
Ranger residence # 2	8	Massive dieoff which appears to be a continuation of the entrance drainage dieoff.

Please direct any questions or comments about the quarterly report to Kevin Turner kevint@ucr.edu . We welcome your future contributions to the report for any activities or information related to GSOB. For information for the upcoming January through March 2014 quarter report, please submit your input to me by close of business April 7th. A reminder will be sent out through Collaborative Tools at the end of March.