

Goldspotted Oak Borer and Oak Mortality

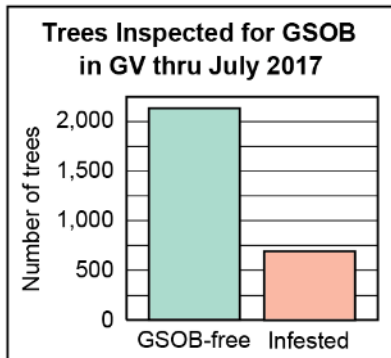
Quarterly Situation Report

July 1 through September 30, 2017

Los Angeles County Report (Green Valley community)

by Robin Farr, GV GSOB volunteer coordinator and Nico Alegria, LA County Fire Forestry Division

The County of Los Angeles Fire Department, Forestry Division has two full-time GSOB people in Green Valley, foresters Bill Romo and Nico Alegria. They are developing a close working relationship with the United States Forest Service (USFS) Angeles National Forest (ANF). Besides being on a first-name basis with the local foresters and researchers, Los Angeles County Fire Department Forestry Division and U.S. Forest Service ANF are sharing data-files now (on tree inspections and status) with the U.S. Forest Service entomologists.

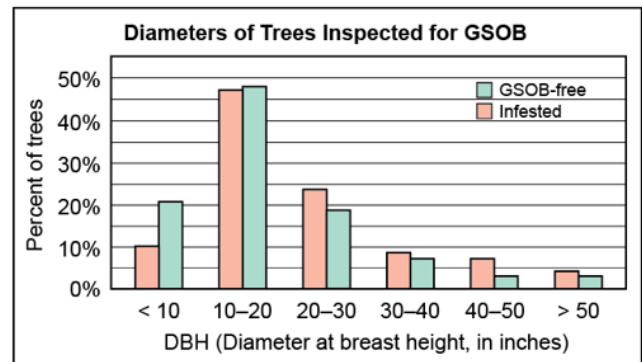


Almost 2,900 oak trees on private property have been inspected in Green Valley, with about 690 infested trees identified by the GSOB Task Force led by the Environmental Review Unit. This is a 24% Infestation rate of inspected trees.

Trees Inventoried without GSOB (2171) compared to trees found to have GSOB present (692). This infested number includes removed trees, trees marked for removal, trees difficult to remove, and trees that do not meet removal criteria.

With the assistance of Los Angeles County Fire Dept. camp crews and the California Conservation Corps (CCC), the Task Force was able to drop and process a substantial number of infested trees. These trees, as well as trees felled by land owners themselves, were then rigorously debarked and chipped to control the spread of GSOB. The criteria for deciding on the removal of a GSOB-infested tree remain finding more than 10 GSOB D-shaped holes in the trunk and a decline in the tree canopy.

Tree Status	#
Infested <i>total</i>	692
High difficulty for removal	30
Trees removed by Fire Dept.	184
Trees removed by owner	20
Marked to be removed	154
Monitor (clear symptoms but no exit holes)	96
Infested but no contact with owner/vacant lot	40
Infestation does not meet removal criteria (less than 10 exit holes)	68
Inventoried (No infestation) <i>total</i>	2171



This Diameter graph shows the diameters of oak trees in GV, and compares the infestation rate for the sizes of trees. There is a slightly higher rate of infestation in the larger trees, but it is clear that the infestation is pervasive across all sizes. Therefore, all oak trees need to be inspected and monitored.

Riverside County Report

Idyllwild/Pine Cove Update

CAL FIRE crews removed 12 GSOB-infested trees during the quarter. SCE and private arborists also removed an unknown number of trees. Fire Safe Council volunteers conducted three community GSOB surveys.

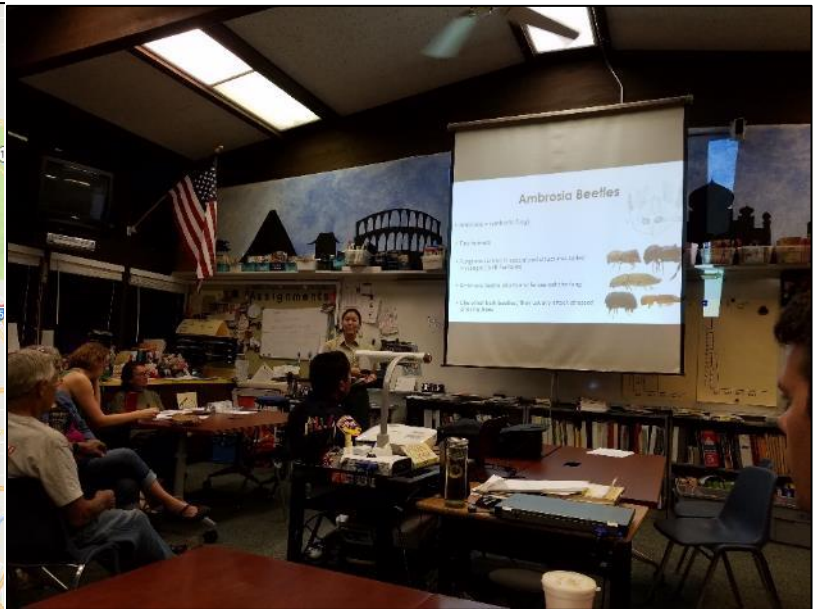
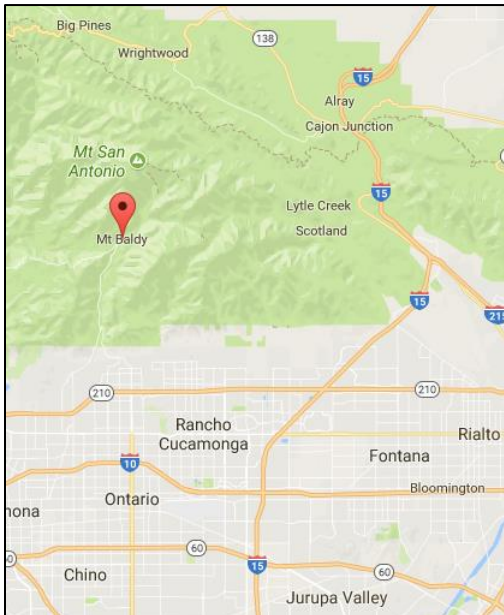
Local arborist John Huddleston has been experimenting with various methods of containing GSOB-infested wood (until seasoned & GSOB dead) using aluminum window screen. The photo to the right shows him standing next to his most efficient design so far. The linear orientation of the enclosure results from the 72"-wide screen that was available locally.



San Bernardino County

Mount Baldy Community Meeting

Stacy Hishinuma (USFS Forest Health Protection), Henry Herrera (Forester I, CAL FIRE San Bernardino Unit) and Kevin Turner (CAL FIRE Invasive Pest Coordinator) gave presentations on GSOB, ISHB (Invasive Shot Hole Borers) native pests, and the danger of bringing infested firewood into their community. The meeting was well attended and interest/concern level was high. A "Buy It Where You Burn IT!" roadside sign has been already ordered for the community to help keep GSOB and ISHB out!



San Diego County Report

Ramona Community Dead and Dying Hazardous (including GSOB) Tree Removal Project Funded by San Diego Unit SRA Fire Prevention Fund Grant

Cheyenne Borello, Forester I, CAL FIRE - Monte Vista Unit (San Diego)

The Ramona West End Fire Safe Council (RWEFSC) received a State Responsibility Area (SRA) Fire Prevention Fund Grant in April of 2016 for their Ramona Community Dead and Dying Hazardous Tree Removal Project. The purpose of the project was to assist SRA landowners within the Community of Ramona in the removal of dead and dying trees within 100 feet of a home and/or 30 feet of an access road. The program was advertised in the local paper and participants were required to fill out a one page application to determine their eligibility, agree to pay twenty percent of the cost of the tree removal; up to a maximum of \$200.00 per tree, and sign a hold harmless/right of entry agreement. Participants also agreed to have the dead and dying trees cut into one-foot rounds and smaller material chipped. Participants could keep the wood but agreed not to sell it and to store it according to Best Management Practices and were provided GSOB literature. A Registered Professional Forester (RPF) was hired by the RWEFSC to complete CEQA compliance, review and inspect trees proposed for removal, work with the tree service contractor, and provide professional expertise.

Tree removals began in January of 2016 and were completed in August of 2017. A total of 75 trees were removed on 25 properties (See Table 1). **Thirty-five of the trees removed were coast live oaks (dead or dying due to GSOB)**, and the remaining were primarily eucalyptus and pine species. 89% of the grant was spent on actual tree removal work. This was possible due to the immense volunteer efforts of the RWEFSC in organizing and overseeing the project, meeting with landowners, and invoicing.

Table 1. Summary of RWEFSC, Ramona Community Dead and Dying Hazardous Tree Removal Project

Total Number of Properties	25
Total Number of Trees Removed	75 (included 35 oak trees due to GSOB)
Average cost per oak tree removal	\$1,093.87
Total SRA Grant Funding:	\$64,799.00
Tree Service Contractor	\$57,500.00
Registered Professional Forester	\$7,299.00
RWEFSC In-Kind Match	\$8,290.00



2017 Cuyamaca Rancho State Park Wood Containment Study

Mike Puzzo, Environmental Scientist, California State Parks

Because GSOB can continue to emerge from infested wood for approximately a year after a tree dies, leaving untreated/uncontained wood in an area around other oaks can significantly increase GSOB population pressure. Containing infested wood in a hole/gap-free enclosure prevents emerging GSOB adults from attacking other trees. Ultimately, all the GSOB in the enclosure will die from starvation/dehydration, leaving seasoned wood that can safely be sold at a public wood sale. The purpose of this study was to evaluate potential methods for containing large quantities of GSOB-infested wood until it is safe to move.

Large post and plywood-framed enclosures were built and infested firewood was stacked inside. The enclosures were then covered with either 6 mil plastic sheeting (plastic sheeting) or greenhouse fruit fly plastic mesh screen (mesh screen). With the mesh screen, the biggest size (300'x16') we could find did not allow us to use one piece per bin, so two pieces had to be secured together to create a ~30'x24' rectangle.

To date the mesh screen has held up well. The plastic sheeting has torn and has been patched many times. The screen allows the wood to season quickly. The sheeting gets heavy with condensation which promotes mold growth.

GSOB have shown the ability to chew through fiberglass window screen in other trials. Could they chew through the mesh screen? To find the answer, infested wood was placed in barrels and mesh screen firmly secured over the top. The screen will be examined for "chew" holes at the end of the trial.



Definitive results from this containment study won't be known until the end of flight season survey for GSOB beetles within the enclosures slated for November. In the meantime, some lessons learned:

1. Build the stalls in advance of the tree felling to avoid moving the wood more than once.
2. 6 mil plastic sheeting did not withstand the wind, rain, condensation and tore at stress points.
3. The mesh screen is durable, allows the wood to season, and is UV rated for five years and costs 3 x more than the plastic sheeting.
4. Other construction material may be used on the bins. However, the plywood provided a sturdy frame when large rounds were tossed in the bins.

More information and photos from this study are available in the Outreach/Education Collaborative Tools "Documents" section or by contacting Mike Puzzo at Michael.Puzzo@parks.ca.gov.

Camp Pendleton

James Asmus, Ecologist- MCI-West Environmental Security

We have not yet detected GSOB or SHB beetles on Camp Pendleton. We continue to monitoring for forest pests, especially GSOB and SHB, using trapping, driving surveys, plot surveys, and spot inspections; see the attached report (*a copy of the report is available on Collaborative Tools*).

**FINAL GOLDSPOTTED OAK BORER AND SHOT HOLE
BORER MONITORING REPORT AND EARLY DETECTION
RAPID RESPONSE PLAN REVIEW 2016 FLIGHT SEASON**

**MARINE CORPS INSTALLATIONS WEST – MARINE CORPS
BASE, CAMP PENDLETON, CALIFORNIA**

SEPTEMBER 2017



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Orange County Report

The Canyon 2 Fire burned in Orange County after the July thru September quarter ended. The entire area of Orange County GSOB infestation in Weir Canyon was within the fire perimeter, as were areas of other tree species with PSHB/FD infestation. Next quarter's report will include details about the fire's effects on the infestation areas and what follow-up work or studies are planned in its aftermath.

In Anaheim on September 15th, the Western Chapter of ISA sponsored a meeting called “Protecting Trees in a Changing Environment” which was attended by more than 120 certified arborists. Kevin Turner gave a presentation, “GSOB Response - Organizing for Action”. There were other talks on ISHB/FD, the effect of drought on oaks, and other topics. Speakers included Rosi Dagit, Chris Falco, John Kabashima and Igor Lacan. The level of interest and quantity and quality of questions from the audience was high.



University of California Cooperative Extension GSOB Outreach - Abigail Barazza

- 07/15/2017, Annual Star Gathering, Campo Band of the Kumeyaay Nation, Campo
- 07/22-23/2017, Annual Insect Fair, San Diego Botanical Gardens, Encinitas
- 09/02/2017, Environmental Protection Day, Manzanita Band of the Kumeyaay Nation, Boulevard

Handouts distributed:

- GSOB Trifold brochure – 200
- GSOB ID cards – 295
- GSOB Wood BMP's – 175
- GSOB, Forest Insect and Disease Leaflet (USFS) - 25
- Miscellaneous GSOB Handouts (e.g. children's activity sheets, folders, etc.) - 150
- Buy It Where You Burn It/Don't Move Firewood rack cards – 155

Other miscellaneous activities during the quarter:

Samples of GSOB adults and larvae were sent to our counterparts at Oregon State University along with GSOB ID cards and other GSOB literature. Here is a thank you note from OSU.

“Thank you again for your help! The insect samples are really great and they’ll be very useful during our pest detector workshops.

Sincerely,

Brandy Saffell | Forestry & Natural Resources Extension Staff | Oregon State University”

Collaborative Tools Calendar for July - September

Event Date	Event Name	Location
9/28/2017	CONTROLLING PESTS IN AVOCADOS Mtg	FALLBROOK PUBLIC UTILITY DISTRICT
9/20/2017 - 9/21/2017	2017 Southwestern Tribal Climate Change Summit	University of San Diego
9/15/2017	Western Chapter International Society of Arboriculture meeting	Anaheim CA,
9/5/2017	Mt. Baldy Town Hall and Community Meeting	
8/4/2017	Society of Landscape Architects	San Diego
7/22/2017 - 7/23/2017	Insect Fair	SD Botanical Gardens- Encinitas CA
7/18/2017	Mt. Baldy Community Meeting	Mt. Baldy Fire Department, 6730 Mt. Baldy Road, Mt. Baldy, CA
7/5/2017	Customs and Border Protection Operation Snapshot	San Ysidro Passenger Car Port of Entry

(There were two different meetings held at Mt. Baldy. The 9/5 meeting resulted from the 7/18 field trip)

Please contact Kevin Turner at kevin.turner@fire.ca.gov regarding omissions or corrections needed for this report.