



# STREET TREE SEMINAR, INC.

P.O. Box 6415  
Anaheim, CA 92816-6415



Street Tree Seminar, Inc.

# STS Newsletter

APRIL/MAY

VOLUME XVI ISSUE 2

## MARCH MEETING: Golden Spotted Oak Borer - presented by Dr. Fred Roth

**F**red discussed the Gold Spotted Oak Borer (GSOB) and how its host range is growing and there seems to be more activity than before. The GSOB is a native to Arizona and is a type of flat-headed borer, somewhat like the Oak Twig Girdler. First found in San Diego and is now becoming more prolific. The GSOB is distributed with firewood and pallet wood. Many of the borers are more active on drought stressed trees. Fred recommends to water drought stressed oaks 1-2 times during the summer months to get them by. Also discussed was the use of black plastic to wrap and kill infested firewood. Dr. Roth said that there is a study that showed that pin holes will let in outside light and the beetles will find a way out. He preferred clear plastic.

The information below is from [http://civr.ucr.edu/goldspotted\\_oak\\_borer.html](http://civr.ucr.edu/goldspotted_oak_borer.html)

The goldspotted oak borer (GSOB) was first detected in 2004 in San Diego Co., California by the California Department of Food and Agriculture during a survey for exotic woodborers. In 2008, it was found in the same county attacking coast live oak, *Quercus agrifolia*, canyon live oak, *Q. chrysolepis*, and California black oak, *Q. kelloggii*, on the Cleveland National Forest. GSOB is playing a major role in on-going oak mortality on federal, state, private, and Native American lands in southern California. GSOB larvae feed under the bark primarily at the interface of the sapwood and phloem on the main stem and larger branches. Larvae kill patches and strips of phloem and cambium, resulting in limb and branch die back and, eventually, tree death. Because of host distribution, GSOB has the potential to spread further north in California and cause similar tree mortality. Since very little published information is available on this insect, additional research is needed to determine the life cycle, behavior, and management strategies.

### Identification

Adults are about 10 mm long and 2 mm wide. They are bullet-shaped and can be identified by the six golden-yellow spots on the dark green forewings. Mature larvae are about 18 mm long and 3 mm wide. They are legless, white, and have a long slender appearance. The larvae possess two pincher-like spines at the tip of the abdomen. Pupae are found in the outer bark and resemble adults, but are commonly white in color. Eggs are probably laid in bark crevices like other *Agrilus* spp., but have not been observed by the authors.

### Evidence of Attack

GSOB attacks can be recognized by extensive bark staining, which can appear as black regions or red blistering with sap oozing from under the bark. Adult exit holes signify previous GSOB attack. These emergence holes are D-shaped and about 3 mm in width. On coast live oak, the bark is frequently removed by woodpeckers as they forage for larvae and

(Continued on page 3)

**NEXT MEETING:**  
**Thursday, May 20, 2010**  
**Audubon Center at Debs Park**  
**Los Angeles, CA**

## 2010 MEETING SCHEDULE

May 20, 2010 Thousand Canker Disease, Mr. Steven Seybold Forest Entomologist and Chemical Ecologist, USDA FS, UC-Davis Department of Entomology Discussion led by Angela Lu	Audubon Center at Debs Park  Los Angeles, CA
June 10, 2010 Golf Tournament	Robinson Ranch Golf Course Santa Clarita, CA
August 19, 2010 The Disease of the Trees in Newport Beach	Newport Coast Commerce Center Newport Beach, CA
October 21, 2010 Tree Inventory Systems	West Coast Arborists HQ Anaheim, CA
December 16, 2010 Scholarships Awards / Installation of Board Members and Officers	TBD

### MISSION STATEMENT

"To promote the advancement of urban forestry and provide a forum for tree care professionals to share their experiences, knowledge, and expertise for the benefit of the membership and the enhancement of Southern California's community forests."

### VISION STATEMENT

"To enhance the health and beauty of Southern California cities by improving the quality of our community forests."

Remember to email Robert Sartain @ [RSartain@santa-clarita.com](mailto:RSartain@santa-clarita.com) with your reservation

## MAY 20, 2010

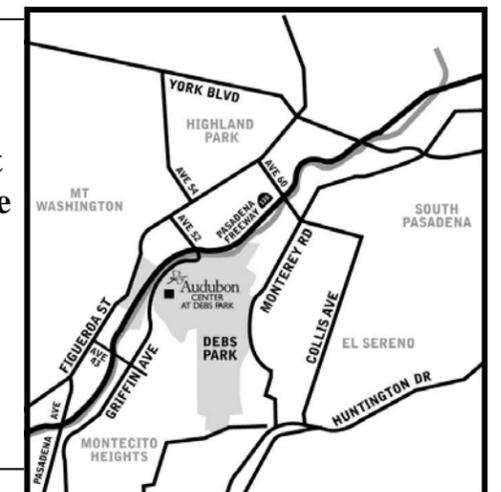
**Mr. Steven Seybold Forest Entomologist and Chemical Ecologist, USDA FS, UC-Davis Department of Entomology will present Thousand Canker Disease Discussion Led by Angela Lu**

**LOCATION: AUDUBON CENTER AT DEBS PARK - 4700 NORTH GRIFFIN AVE., LOS ANGELES, CA**

**TIME: 10:30 AM**

**COST: \$15.00 ADVANCED - \$20.00 AT THE DOOR**

NEXT MEETING!



PRESIDENT

Cy Carlberg  
Registered Consulting Arborist  
2402 California Avenue  
Santa Monica, CA 90403  
(310) 453-TREE

PAST PRESIDENT

Alan Hudak  
City of Anaheim  
1426 E. Vermont  
Anaheim, CA 92805

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City of Santa Clarita  
25663 Ave. Stanford  
Santa Clarita, CA 91355  
661/294-2548

SECRETARY

Robert Sartain  
City of Santa Clarita  
25663 Ave. Stanford  
Santa Clarita, CA 91355

TREASURER

John Conway  
City of Newport Beach  
3300 Newport Blvd.  
Newport Beach, CA 92659  
949/644-3083

DIRECTORS

Dave Cooper  
West Coast Arborists, Inc.  
2200 E. Via Burton  
Anaheim, CA 92807  
714/920-4026

Bill Candlish  
City of Los Angeles  
1149 S. Broadway, Ste # 400  
Los Angeles, CA 90015  
213/216-4822

Dr. Fred Roth  
Cal Poly University, Pomona  
3801 W. Temple Avenue  
Pomona, CA 91768  
909/987-7165

MEMBERSHIP

Kevin Holman  
714/412-5348

SCHOLARSHIP

Dan Jensen  
714/841-2905

MAILING ADDRESS

Street Tree Seminar, Inc.  
P.O. Box 6415  
Anaheim, CA 92816-6415  
www.streettreeseминаr.com

## Business Meeting

Dr. Fred Roth stepped in for Tom Scott who was called away on an emergency and gave us a great overview of the newest nuisance, Golden Spotted Oak Borer.

THANKS TO VALLEYCREST TREE CO. FOR SPONSORING LUNCH!

Past Presidents in attendance: Alan Hudak, Kevin Holman, Al Remyn, Rose Epperson

### Round Robin Discussion –

- There were several discussions on the current state of the economy and how municipal budget were being cut. These cuts are affecting the overall ability to perform complete tree maintenance services and it also is affecting the private sector. Many attendees gave testimonials on how the budget is affecting operations and how they must adjust.
- Another topic was the use of artificial turf in parkways and whether it should be approved

as an option for grass in drought areas. The need is to keep a green turf in communities where there are water rations and citizens want to use artificial turf. Attendees discussed the pros and mostly cons of the idea. Mainly stress to the tree and the general hygiene of the turf for dogs.

### NEXT MEETING:

Our next meeting will be May 20, 2010 at Audobon Center at Deb Park in Los Angeles.

After a presentation by Mr. Steven Seybold Forest Entomologist and Chemical Ecologist, USDA FS, UC-Davis Department of Entomology

Angelia Liu will be leading a discussion on Thousand Canker Disease. Don't forget to bring your questions!

## Upcoming Industry Events

**SAVE THE DATE!**

AND Save your city (or agency) lots of \$\$\$ !!

By taking  
**Urban Forest Management Planning**

For Citrus College credit  
Developed in collaboration with the  
California Urban Forests Council

This on-line class starts July 2010 and will culminate at the  
MSA conference at the Pechanga Resort in October 2010.

For details: <http://gomsa.net/>  
626-914-8700 or [kholland@citruscollege.edu](mailto:kholland@citruscollege.edu)

**ISA**

**BUILDING THE ROOTS OF ARBORICULTURE**

CHICAGO, IL • JULY 23-28, 2010

## SMA Annual Conference October 3-6, 2010 in Albuquerque, New Mexico Tree Economics: A Smart Investment

In today's economy, it is critical that communities protect the investment they have made in their urban forest. The 2010 SMA conference will focus on short-term solutions that pay long-term dividends. Preference will be given to presentations that address professional tree management and promotion of community tree programs. Of particular interest are topics that address ways to work with other departments, organizations, and allied professionals; funding opportunities; LEED building, Planning, and Design; technology solutions; and use of social media.

<http://www.urban-forestry.com>

## Golden Spotted Oak Borer - continued from page 1

pupae; this reveals the deep red-colored outer bark that contrasts starkly with the gray exterior bark. The presence of the larvae and their galleries, the emergence holes, and the associated woodpecker damage all distinguish GSOB infestation from infections with *Phytophthora ramorum*, the pathogen that causes sudden oak death. The latter has not been infested with GSOB.

Larvae construct galleries primarily on the sapwood surface along the main stem from the base of the tree up to larger branches. Larval galleries are dark in color and have a meandering with a general vertical orientation. Extensive larval feeding can strip or patch kill areas of the tree, which turn black as they die. Stained regions of the bark surface represent patch-killed areas beneath the bark. Patch-killed regions are commonly saturated with sap, which begins with premature leaf drop and progresses to twig and branch die back. Crown thinning may only be evident after two to three years of attack. California black oak loses foliage more quickly than evergreen coast live oaks. If their behavior is similar to other flat headed borers in this genus, GSOB adults likely feed and mate on the foliage.

### Background and distribution

GSOB has been known since the late 1800's from museum records from southeastern Arizona, southern Mexico, and northern Guatemala. Collection dates for these adult museum specimens ranged from May to September. It was first collected in California in 2004. Currently, GSOB occurs in southern California in a 50 x 40 km area east of San Diego Co. Damage to oaks was first associated with GSOB in 2008 in San Diego Co., although elevated levels of oak mortality have been aerially mapped on and around the Cleveland National Forest since 2002. There are no reports that link GSOB to development in or damage to oaks outside of California. Although the presence of GSOB in southern California may reflect a range expansion from native populations to the east and south, anecdotal reports suggest that it may have been introduced during the last ten years on oak firewood brought in from Mexico.

### Biology and potential impacts on oaks in California

In southern California, initial observations suggest that most of the GSOB population completes one generation in a year with mature larvae present in the tree beginning in late May. Larvae and pupae

were observed beneath the bark as late as October, suggesting that some fraction of the population may require more than one year to develop. Preliminary flight trapping suggest that adult activity occurs from June to September with peak flight in late June. However, full season observations will no doubt reveal the presence of young larvae prior to May and adult flights that begins earlier than June. Coast live oak species may be susceptible as well. We have observed attacks from GSOB only in older, mature oaks. GSOB attacks have not been observed in small diameter oaks (<12 cm at breast height). Additional research is needed to clarify the life history and host range of GSOB. Widespread oak mortality can impact wildlife through loss of a food source and habitat. Dead oaks can also create potential hazard, especially near dwellings, along roadways, and in recreational areas. Oak mortality also represents a significant increase in fuel loads across the landscape, which can increase the probability and severity of wildfire.

### Management Options

Several *Agrilus* spp. in the U.S., including bronze birch borer, emerald ash borer, and twolined chestnut borer, have very similar life histories and impacts on hardwood trees. Until management guidelines can be developed specifically for GSOB, we suggest that arborists, land managers, forest health specialists, and homeowners consider the following information from other hardwood *Agrilus* spp. when managing oaks for GSOB. These management tactics and associated timing have not been tested for GSOB in southern California.

Logs and firewood from GSOB-killed trees or green infested trees should not be removed from infested areas. We emphasize that transporting infested firewood may represent a significant pathway for introducing GSOB

into non-infested areas. Removing dead or dying trees infested with GSOB followed by careful handling of infested materials may reduce localized populations. Within infested areas, covering oak wood with thick, clear plastic sheeting or exposing cut wood to direct sunlight may kill GSOB larvae and pupae. Chipping wood into 2.5 cm pieces is the best method to drastically reduce *Agrilus* spp. survival in cut logs.

