

GSOB beetles cause damage throughout their life cycle. They lay eggs in the crevices of oak bark and the larvae burrow into the tree, where they eat the tree's inner layers. As adults, GSOB beetles bore out of the tree, leaving D-shaped exit holes on the trunk.



THE GOLDSPOTTED OAK BORER

Evidence of attack:

1. Thinning upper branches and leaves of an oak tree
2. Dark red bark stain ("bleeding") on the tree trunk
3. D-shaped exit holes

What you can do:

1. **Don't move firewood!**
GSOB beetles spread when infested oak firewood is moved from place to place.
2. **If you suspect GSOB beetles, report it!** Scan the QR code at right.

SIX GOLDEN SPOTS ON FOREWINGS



1/2" LONG





32

Goldspotted Oak Borer

Urban Insect Series

Goldspotted Oak Borer

Agrilus auroguttatus



Damage on oaks

Native to Arizona and Baja California (Mexico), this beetle was recently found infesting oaks in southern California. Adults (about 10mm) have dark metallic green bodies with several distinct gold spots. Larvae are yellowish-white and legless. They bore into trunks and some larger branches of oaks. Heavily infested trees show die-off near the top of the tree, and they gradually die over several years.

CATEGORY

**Destructive
Invasive Pest**

Compliments of the Los Angeles County Department of
Agricultural Commissioner/Weights and Measures

Kurt E. Floren, Commissioner/Director

<http://acwm.lacounty.gov>

Goldspotted Oak Borer (GSOB)

A new threat to oaks in California



COAST LIVE OAK



CALIFORNIA BLACK OAK



CANYON LIVE OAK

**GSOB PREFERS
THESE OAK SPECIES**

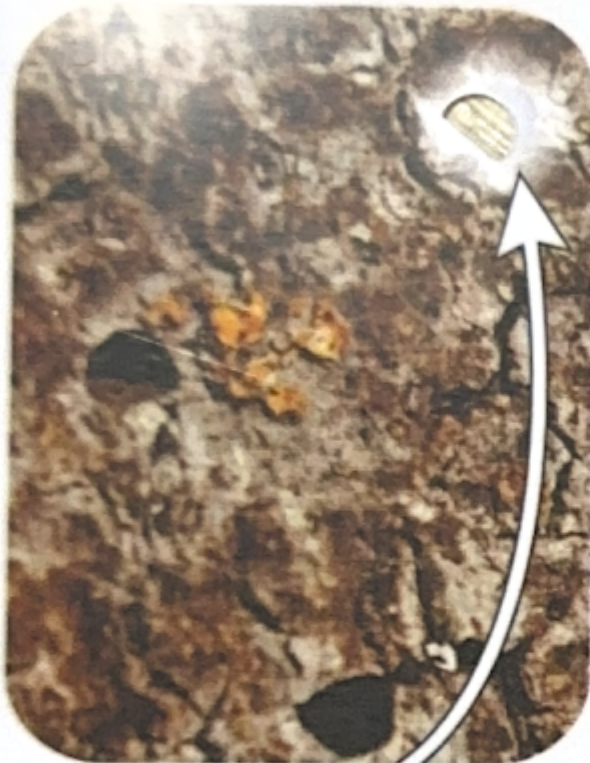
BARK STAINING
ON MAIN STEM FROM
LARVAL FEEDING



Exit Hole

**THINNING
CANOPY**

www.gsob.org



**LARVAL FEEDING
UNDER THE BARK**



GSOB LARVAE
(20 mm)

GSOB ADULT
(10 mm)



(PHOTOS DEPICT ACTUAL SIZE)

**D-SHAPED
EXIT HOLES**
(3-4 mm)

CENTIMETERS



**UC
CE**

UH-OH! BEETLE-MANIA IS SWEEPING LA COUNTY!



Oak trees have lived in California for centuries. Their canopies and acorns continue to shelter and nourish Native Peoples, and they provide beauty, shade, and fresh air for all today.

But there's a new threat to our majestic oaks in LA County—the **Goldspotted Oak Borer (GSOB)**. The GSOB beetle is a threat to native oaks, including the Coast Live Oak, California Black Oak, and Canyon Live Oak.



THE GOLDSPOTTED OAK BORER



Goldspotted oak borer adults are slender beetles about 7/16 of an inch (1 cm) in length with six distinguishing orange spots on the wings.



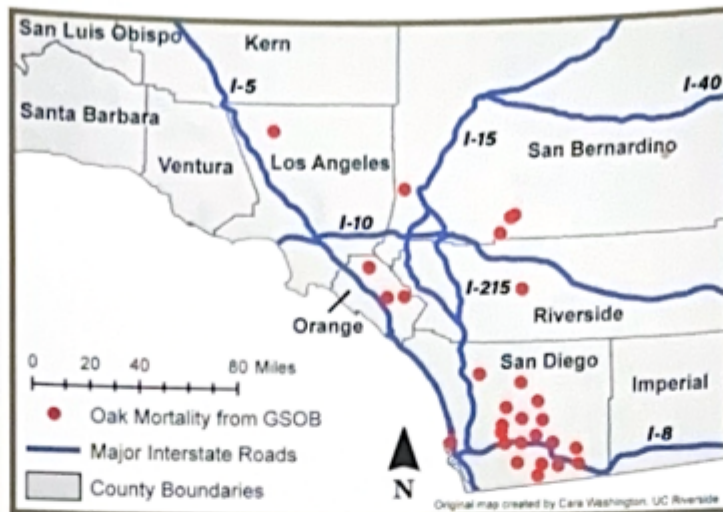
GSOB larvae are legless and white in color. Mature larvae can reach 13/16 of an inch (2 cm) in length. Larvae possess two pincher-like spines at the tip of the abdomen.



REPORT SUSPECTED GSOB INFESTED TREES

<http://ucanr.edu/u.cfm?id=273>

CURRENT AREA OF INFESTATION



Goldspotted oak borer is widely distributed throughout San Diego County and is also present in several other locations in Southern California. The movement of infested firewood is suspected as the cause for infestation in new locations.

DON'T MOVE FIREWOOD!



Moving firewood has the potential to introduce this new pest to more California locations.

PLEASE, DO NOT MOVE FIREWOOD!
www.firewood.ca.gov

For additional information:
www.GSOB.org

Ver. 05/2021



GOLD SPOTTED OAK BORER

A NEW THREAT TO OAKS IN SOUTHERN CALIFORNIA



The goldspotted oak borer (GSOB) has killed tens of thousands of mature oak trees throughout San Diego County and in isolated areas of Orange, Los Angeles, Riverside, and San Bernardino Counties.

Experts believe the introduction of this non-native oak pest and subsequent spread throughout Southern California happened through the transport of infested firewood.

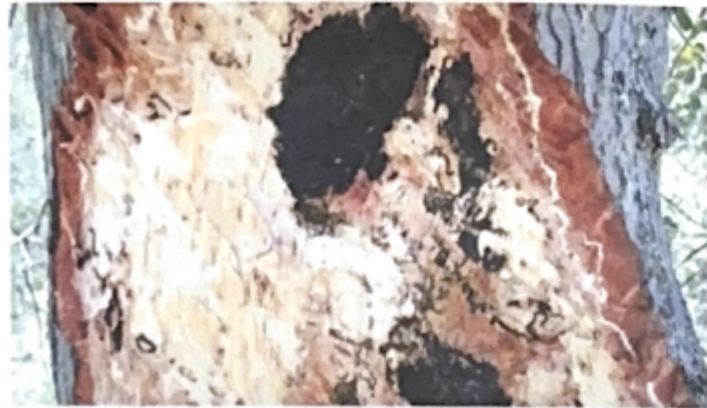


These agencies are equal opportunity employers.

BEETLE IMPACTS



Feeding galleries of the goldspotted oak borer larvae are often black in color with no specific pattern. Larvae feed under the bark primarily on the wood surface.



High densities of larval galleries can patch kill areas of inner bark and lead to tree death. Patches of dense galleries are often indicated by dark, wet staining on the surface of the bark.



Black or red staining on the main stem or larger branches can signify injury from the goldspotted oak borer.

EVIDENCE OF INJURY



Woodpeckers chip away outer bark to forage on goldspotted oak borer larvae. Woodpecker foraging in coast live oak exposes the dark larval galleries and red inner bark.



When new adult beetles emerge, they create D-shaped exit holes about 3/16 of an inch (4 mm) in diameter.



Twig die-back and crown thinning can be symptoms of goldspotted oak borer injury.

HOST TREES



Coast live oak is a species with cupped leaves. It maintains green leaves year round and its acorns are slender and sharply pointed.



California black oak is a species which loses its leaves in the winter. It is found at higher elevations, at 5,000–7,000 ft in southern California.



Canyon live oak is a species that maintains green leaves year round. The underside of older leaves has a gray appearance while newer leaves have fine red hairs.