

New Pest Threatens California's Oaks

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As if life wasn't tough enough already for California's native oaks with Sudden Oak Death (see the California Oak Mortality Task Force web site [www.suddenoakdeath.org/]), continuing drought, more wildfires and anthropogenic impacts from residential developments, firewood harvesting and agricultural conversions, a new pest has emerged in the last several years

that is decimating some oak species in southern California. This pest, called the **gold-spotted oak borer or GSOB (*Agrilus coxalis*)**, was first detected in 2004 and has been killing thousands of oaks in the mountains of eastern San Diego County. This flat-header borer attacks the trunks and branches of mature oaks, feeding primarily at the interface between the sapwood and the phloem under the bark. Larvae eventually girdle the cambium, resulting in the death of the above-ground portion of the tree. While some oaks resprout from their base, this rarely happens in larger trees. The death of large numbers of oaks causes numerous adverse impacts including wildlife habitat loss, greater risk of erosion, an elevated threat of catastrophic fire (as a result of increased fuel loads), increased safety risks from trees or branches falling down, a greater probability of the

invasion of noxious weeds, and a reduction in the overall quality of the visual landscape.

Experts think the GSOB (who some refer to as the Golden SOB!!), arrived in the county sometime in the last few years, hidden under the bark of imported firewood—most likely from Arizona or Mexico—though that has yet to be confirmed. To date it has attacked coast live oaks (*Quercus agrifolia*),

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California black oaks (*Q. kelloggii*) and canyon live oaks (*Q. chrysolepis*), but has not been found on any white oak species. The beetle is about 10 mm (0.4 in) long and 2 mm (0.1 in) wide, with gold spots on its dark green forewings. It is a native of Arizona, Mexico and Guatemala.

"The jury's still out on whether this is a natural expansion of the territory of this beetle or whether it is an introduced species," said Bob Atkins, San Diego County Agricultural Commissioner. A recently written *Pest Note* on the GSOB can be viewed at the Cleveland National Forest web site: <http://www.fs.fed.us/r5/cleveland/>



Unlike some pests that seem to only target weakened or stressed trees, the GSOB also attacks large, vigorous, and healthy trees, including urban trees in people's yards. **As yet there is no recommended treatment, largely because so little is known about the insect.** So far, more than 17,000 oaks

GSOB On-line Resources

<http://www.fs.fed.us/r5/cleveland/>
www.suddenoakdeath.org/

have succumbed to the borer at elevations ranging from about 1800 ft above sea level to almost 6200 ft. While residents of the affected areas watch in dismay as this new pest takes its toll, scientists are trying to learn more about the beetle and understand its life cycle and behavior so that treatments and management recommendations can be developed and tested. Until then, efforts are focused on educating the public and preventing the spread through the movement of firewood.

To protect Southern California's majestic oaks, federal, state and local officials are urging San Diego County

residents not to bring in firewood from outside the county, and to avoid chopping down backcountry oaks for burning in fireplaces or wood stoves. They are also developing recommendations for eliminating the beetles from

firewood that is cut and stacked. They worry that without intervention, GSOB will continue to spread in San Diego County and will then move north into Riverside County and other parts of the state. For this reason, some districts in the Cleveland National Forest have also stopped issuing permits to cut oaks for firewood. **While officials recognize that the range of the pest will likely continue to expand, they feel they can slow its progress by educating the public and modifying firewood harvest regulations.**

Oaks 'n' Folks is the newsletter of the University of California, Agriculture & Natural Resources, Integrated Hardwood Range Management Program.

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Design & Layout: Sherry Cooper

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