



# Forest Insect & Disease Leaflet 183

Revised August 2017

U.S. Department of Agriculture • Forest Service

## Goldspotted Oak Borer

*T.W. Coleman<sup>1</sup>, M.I. Jones<sup>2</sup>, S.L. Smith<sup>3</sup>, R.C. Venette<sup>4</sup>, M.L. Flint<sup>5</sup>, and S.J. Seybold<sup>6</sup>*

The goldspotted oak borer (GSOB), *Agrilus auroguttatus* Schaeffer (Coleoptera: Buprestidae) (Figure 1), is a flatheaded phloem- and wood borer that infests and kills several species of oak (Fagaceae: *Quercus*) in California. One or more populations of GSOB were likely introduced via infested firewood into San Diego County, California from the native range in southeastern Arizona. Since its introduction to California, GSOB has expanded its range and has killed red oaks (*Quercus* Section *Lobatae*) nearly continuously across public and private lands (Figure 2).

### Distribution and Hosts

The native distribution of GSOB likely coincides with that of Emory oak, *Q. emoryi* Torrey, including the Coronado National Forest in southeastern Arizona and floristically related regions in northern Mexico, southern

New Mexico, and southwestern Texas. Specimens of GSOB have only been collected from Arizona, California, and Mexico. In southeastern Arizona, GSOB feeds primarily on *Q. emoryi*, and silverleaf oak, *Q. hypoleucoides* A. Camus (both Section *Lobatae*). Larval feeding injures the phloem and outer xylem of these red oak species, with most feeding activity and occasional cases of tree mortality noted in large-



*Figure 1. Adult goldspotted oak borer, *Agrilus auroguttatus*, an exotic insect threatening red oaks in California (Adults are approximately 0.35 inches long by 0.08 inches wide).*

<sup>1</sup>Entomologist, USDA Forest Service, Forest Health Protection, San Bernardino, CA;

<sup>2</sup>Entomologist, Dept. of Environmental Science and Forestry, Syracuse University, Syracuse, NY; <sup>3</sup>Entomologist, USDA Forest Service, Forest Health Protection, Susanville, CA;

<sup>4</sup>Research Biologist, USDA Forest Service, Northern Research Station, St. Paul, MN; <sup>5</sup>Entomologist, Dept. of Entomology and Nematology and Statewide Integrated Pest Management Program, University of California, Davis, CA; <sup>6</sup>Research Entomologist, USDA Forest Service, Pacific Southwest Research Station, Davis, CA.