Questions and Answers from the UC IPM Urban and Community Webinar "The Growing Threat to Our Trees" on October 1, 2025

During the webinar, Dr. Beatriz Nobua-Behrmann answered live questions from participants. Below are some of the questions asked about invasive tree pests in California. Keep in mind that some of the questions were related to content shared during the live presentation. This list does not include all questions that were answered live.

For more information about the pests mentioned during the talk, invasive shothole borers and goldspotted oak borers, visit ishb.org and gsob.org. Also read UC IPM's *Pest Notes: Invasive Shothole Borer* and *Pest Notes: Goldspotted Oak Borer*.

Invasive Shothole Borers

Q: Do invasive shothole borers crawl or fly onto trees?

> **A:** Only female beetles can fly and infest other trees; males do not fly.

Q: Where are invasive shothole borers native?

> **A:** Experts believe polyphagous shothole borer (PSHB) and Kuroshio shothole borer (KSHB) were introduced to Southern California from Vietnam (PSHB) and Taiwan (KSHB). The beetles presumably arrived via infested wood products or shipping material.

Goldspotted Oak Borers

Q: For those who have oaks susceptible to GSOB on their property and live in infested areas, how often should these trees be inspected?

> **A:** I recommend inspecting the trees once a year during fall/winter (after the emergence season ends).

Q: Are any other oaks susceptible to goldspotted oak borer? Such as blue oak or interior live oak in northern California?

> **A:** GSOB attacks only oaks and prefers those in the red oak group including coast live oak, *Quercus agrifolia*, and California black oak, *Q. kelloggii*. GSOB also infests

canyon live oak, *Q. chrysolepis*, and on very rare occasions Engelmann oak, *Q. engelmannii*.

Managing Infested Wood

Q: Do you recommend composting mulch from trees infested with these pests? Also, is composted mulch better for fire-prone areas?

A: After chipping the wood, composting—when done correctly—will kill the remaining beetles and fungi in the chips. To reduce fire risk, it's recommended to keep mulch thickness at 3 inches or less. For more information about fire-smart landscaping, visit https://ucanr.edu/site/uc-marin-master-gardeners/maintain-fire-smart-landscape

Q: I work in arboriculture and chippers that can produce chips less than 1" are rare (only ever seen it once). Is there a chipper you could recommend to do this?

A: I don't have a particular recommendation. I know achieving less than 1 inch is really hard. Some people achieved this by passing the material through the chipper twice. But even if less than 1 inch is not achieved, chipping the wood as small as possible significantly reduces the number of surviving beetles (for reference, when chips are less than 3 inches, 98% of the beetles are killed).
In summary:

- Chipping infested material is the best way to quickly and effectively reduce the number of live beetles in it.
- Aim for chips as small as possible.
- Even if less than 1 inch is not possible, chipping is still effective.
- Considering that less than 1 inch is rarely achieved, you should still consider chipped material as infested and should not be used as mulch in a different location. You can use it as mulch **in the same property** or send it to a composting facility.
- Once properly composted, the result (either compost or composted mulch) is considered pest-free.

Q: Don't the pests you talk about all feed on living trees? Would seasoned firewood really harbor invasive shot hole borer or goldspotted oak borer? Don't these species require live tissue?

A: Yes. These pests need live trees. But if an infested tree is cut down, they can survive in down wood for months or, in the case of GSOB, for up to two years. The larva will finish developing in this down wood and emerge as adults wherever this firewood ends up. Firewood needs to be **seasoned for 2 years** to be considered safe to move. This seasoning can happen uncovered (not ideal, because the beetles

will emerge wherever the wood is staged for seasoning) or covered with a metallic mesh.
You can find more information on options to manage infested down wood here: https://ucanr.edu/sites/default/files/2023-01/377974.pdf