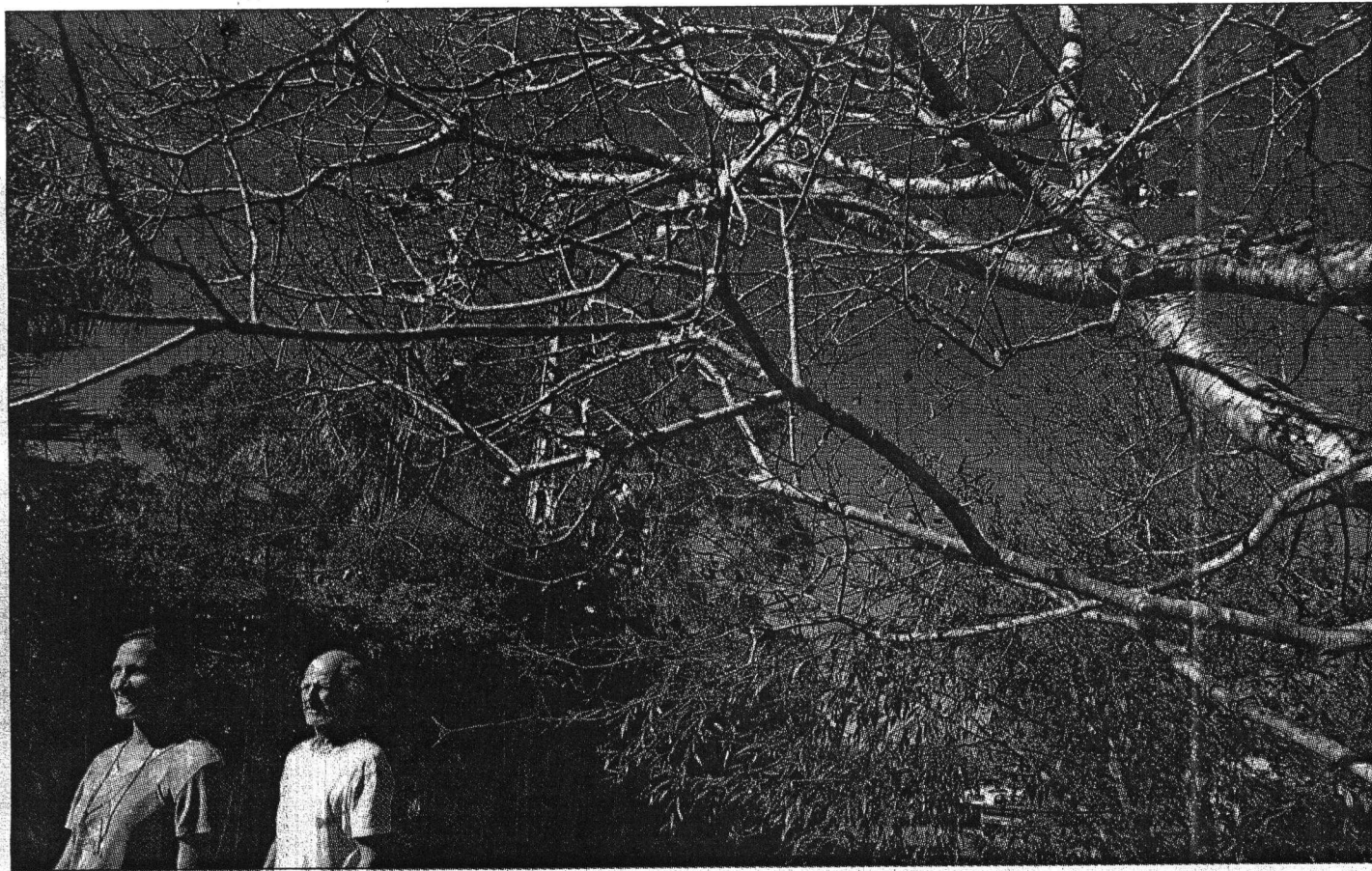


UNDER SIEGE

Santa Cruz County oak trees fight fatal foe and nonlethal pest



SHMUEL THALER/SENTINEL

Deb and Robert Dixon walk past an oak tree defoliated by caterpillars and moths on their Soquel property.

Trees

By DONNA JONES

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SOQUEL — The leafless live oak in Deb Dixon's yard looks dead.

But Dixon isn't worried. The tree was attacked by a particularly large infestation of the voracious California oakworm, but she expects it and others in the same condition in and around her Crestline Way neighborhood to recover.

More concerning to Dixon is a recent survey that found new evidence of sudden oak death in Santa Cruz County. She's afraid people will confuse the two conditions, panic and chop down trees unnecessarily.

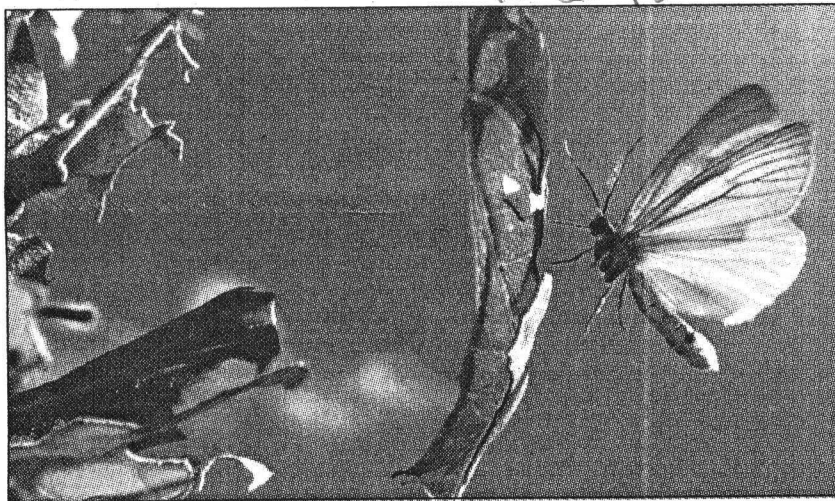
"All the oak trees are not dying," Dixon said. "They are affected by the moths. They will come back, and people will realize the trees are still alive."

She's right about the oakworm — in most cases, experts agree. Urban trees already stressed by soil compaction, excessive irrigation and limited space for roots to spread are more at risk from damage by the oakworm, which isn't a worm at all, but a small, yellowish-green caterpillar with a large brown head and dark stripes on its side.

'The guys with chain saws are happy to cut them down. The trees look dead because they're defoliated. As long as they were healthy before it happened, they can usually withstand defoliation.'

JAMES NEVE,
arborist

SEE MOTHS ON A2



SHMUEL THALER/SENTINEL

A moth flies around the branches of an oak tree on DeLaveaga Golf Course on Tuesday. California oakworms have been around and evolved along with many species of California's oak trees for a few millennia. While these creatures will eat the leaves of our local oak trees, many experts say not to worry and that healthy oaks can withstand a few years of defoliation.

IF YOU GO

TALK ON SUDDEN
OAK DEATH

WHAT: Researchers will discuss findings of first survey of Santa Cruz County trees for signs of sudden oak death infections.

WHEN: 10 a.m. Nov. 10

WHERE: Cal Fire, 6059 Highway 9, Felton

CONTACT: nadiah@big-creek.com

DETAILS: <http://nature.berkeley.edu/garbelotto/english/sodblitz.php>

PEST AND PATHOGEN

SUDDEN OAK DEATH

Infection caused by the pathogen *Phytophthora ramorum* damages foliage in bay laurels and madrones and is lethal to California's native oaks and tanoaks. There is no cure, but preventative measures can be taken.

For information, visit nature.berkeley.edu/garbelotto/english/sodblitz.php or www.suddenoakdeath.org

CALIFORNIA OAKWORM

Native moth cycles through two to three breeding seasons annually. Caterpillars feed on oaks, defoliating entire trees during years of heavy infestations. Trees generally recover, and treatment is not usually required.

For information, visit <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7422.html>

MOTHS

Continued from A1

"The guys with chain saws are happy to cut them down," said James Neve, arborist at Total Tree Solutions in Santa Cruz. "The trees look dead because they're defoliated. As long as they were healthy before it happened, they can usually withstand defoliation."

FATAL DISEASE

For oaks and tanoaks infected with *Phytophthora ramorum*, the pathogen known to cause sudden oak death, the outcome is less optimistic. The disease has killed millions of native oaks and tanoaks in California. There's no cure for the disease, but knowing the location of outbreaks gives communities the chance to protect trees before they're infected. The results from an annual survey of trees throughout Northern California provide insight.

The survey, known as the SOD Blitz, is in its fifth year. More than 10,000 trees were inspected by trained volunteers in the spring survey, which, for the first time, included a look at Santa Cruz County. Samples were collected from some trees, and tested at the UC Berkeley Forest Pathology and Mycology Laboratory.

A dozen volunteers examined 845 trees in the county.

Of 71 trees sampled for the pathogen, 30 tested positive. A map documenting the findings reveals infected trees in the San Lorenzo Valley, near DeLaveaga Golf Course and in the Skyline Boulevard area.

The sampling was done on bay laurel trees, where the disease causes noticeable but nonlethal foliage blight. The pathogen can spread from bay laurels to cause a more deadly trunk infection in tanoaks, coast live oaks, Shreve oaks, California black oaks and canyon live oaks.

"If you find infected bays, it's an early warning sign," said UC Berkeley spokeswoman Katharine Palmieri. "It's time to get on it, and start being preventative."

Prevention ranges from providing a healthy environment and properly disposing of contaminated wood and chips to applications of a chemical fungicide.

Palmieri said the "most powerful" prevention may be communities to acting together. The more swaths of territory protected, the more difficult it will be for the disease to spread, she said. The results of the SOD blitz will be discussed at a community meeting at 10 a.m. Nov. 10 at Cal Fire in Felton, and she urges people to attend and get involved.

"It's important to know where it is in your community," Palmieri said. "Go to that community meeting and learn what's going on

and start being active in the community on this issue."

TACKLING OAKWORM

Back on Crestline Way, Dixon is enjoying the swarm of moths fluttering around her denuded oak tree, even though she knows they're breeding the next generation of leaf-munching caterpillars.

"Mother Nature's great," she said.

But she also wants people to be informed about what's going on with the oakworm, now in its adult stage, a gray, tan or silvery moth, about a half-inch long and with prominent wing veins.

The oakworm is one of several caterpillars that feed on oak trees, but it's the most significant in a range that extends along California's coast and coastal mountains, according to the UC Davis Integrated Pest Management Program website. The moth typically breeds twice each year with the female laying two to three dozen eggs. In warmer inland areas, a third generation is possible. Populations vary in size annually, with an explosion occurring every five to 10 years.

The numbers are up "a bit" in 2012 compared to the previous year, according to Mark Bolda, director of the UC Cooperative Extension in Santa Cruz County.

Dixon said Soquel seems to have been hit hard this year. She said the caterpillars eat all the leaves off one



SHMUEL THALER/SENTINEL

A moth flutters among the bare limbs of a live oak tree in Soquel on Thursday.

tree and move to the next.

"We notice them every year. This year they were huge," she said. "They weren't this strong last year."

The best way to deal with them, according to UC Davis experts, is an integrated pest management program that relies primarily on conservation of the moth's natural predators and good cultural practices.

Follow Sentinel reporter Donna Jones on Twitter at [Twitter.com/DonnaJonesSCS](https://twitter.com/DonnaJonesSCS)



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A bluebird looks out from a bare branch of a live oak tree along Crestline Way in Soquel as a moth flutters by.