

## CALIFORNIA OAK MORTALITY TASK FORCE REPORT APRIL 2012

### **MONITORING**

Phytophthora ramorum was recovered from three native California plant species:

Cornus nuttallii (western dogwood), Trillium ovatum (western wake robin), and Garrya elliptica (wavyleaf silk tassel). While all three species are native to and common along the California coast, P. ramorum has only been isolated from one individual each of western dogwood and trillium growing in infested areas of Humboldt County, and from one individual each of wavyleaf silk tassel and trillium in the wildlands of the Big Sur region (Monterey County). Koch's postulates still need to be performed to demonstrate that P. ramorum is causing disease in these three plant species, but the recoveries in 2011 are the first findings of the pathogen in members of the Trillium and Garrya genera. Several ornamental species of Cornus (C. kousa and the hybrid C. kousa x C. capitata) are already on the list of associated P. ramorum hosts, but the recovery of the pathogen from C. nuttallii marks the first instance of recovery from a North American dogwood species. The plants have not yet been added to the USDA Animal and Plant Health Inspection Service host list.



*P. ramorum* symptoms on *Garrya elliptica*. Photo: Kerri Frangioso, UC Davis



*P. ramorum* symptoms of *Cornus nuttallii*. Photo: Heather Mehl, UC Davis

### RESEARCH

Sudden Oak Death and other *Phytophthora* tree diseases are predicted to be the most damaging of all tree diseases if climate change makes conditions in Western North America wetter and warmer. This finding is one of the conclusions from "A Risk Assessment of Climate Change and the Impact of Forest Diseases on Forest Ecosystems in the Western United States and Canada," by John Kliejunas. Drawing on a large body of published research, the report details the effects of eight forest diseases under two climate-change scenarios - warmer and drier conditions, and warmer and wetter conditions. The likelihood and consequences of increased damage to forests from each



disease as a result of climate change were analyzed and assigned a risk value of high, moderate, or low. The risk value is based on available biological information and subjective judgment. Free copies of the report are available via download or by mail at <a href="http://www.fs.fed.us/psw/publications/documents/psw\_gtr236/">http://www.fs.fed.us/psw/publications/documents/psw\_gtr236/</a>. Funded by the USDA Forest Service's Western Wildland Environmental Threat Assessment Center and the Pacific Southwest Research Station, the risk assessment was conducted as part of the Climate Change and Western Forest Diseases initiative.

Citation. Kliejunas, J.T. 2011. A risk assessment of climate change and the impact of forest diseases on forest ecosystems in the Western United States and Canada. Gen. Tech. Rep. PSW-GTR-236. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 70 p.

### MANAGEMENT



**SOD** trees threaten Lexington Hills home

Photo: Kim Gardner

# The Santa Clara County FireSafe Council expanded their Hazardous Fuel

Reduction program (2011 grant year) to include SOD tree removals and chipping for six communities at risk of wildfire, thanks to a \$156,485 grant from the USDA Forest Service, with \$50,000 in matching funds and in-kind services provided by Santa Clara County. The 18-month long effort exceeded the grant objective of 100 tree removals, with 245 SOD trees and 58 other trees felled. Removals included trees threatening structures, evacuation routes, fuel breaks, utilities such as power lines, and water and propane tanks. For more information, contact Bob Livengood at ED@SCCFireSafe.org.

Sudden Oak Death management demonstration sites developed as a public-private partnership - The Forest Landowner Assistance program for Sudden Oak Death (SOD) Management is a trial project providing technical and financial assistance to forest landowners trying to manage SOD on their property. Participants are helped in designing and implementing model projects suitable for use as SOD management demonstration sites. The project directly assists participating landowners who are facing tree losses and struggling to deal with associated failing trees, fire, and environmental hazards. Management techniques will be shared with other landowners through workshops, field trips, and publication of case studies. Over the past five years, the project has partially funded treatments, including tree removals; planting with non-host species; slash disposal via mastication; chipping; pile and burn; and use of Agri-Fos<sup>®</sup>, covering 80 acres on six



properties. Management plans have been written for nine properties covering 139 acres. Funding, as well as ongoing support, is provided by the USDA Forest Service, Forest Health Protection. The funds are administered to the landowners through the California Forest Improvement Program, California Department of Forestry and Fire Protection.

The Forestry Commission Scotland (FCS) is providing up to \$1,900 per hectare in financial support to landowners for clearing infested areas of *P. ramorum*-positive larch trees. The funding is being provided to encourage early detection and eradication to control the spread of the disease as the FCS believes more cases will be identified this spring when new needles emerge. Currently Scotland has eight confirmed areas with diseased larch trees, all on the west coast.

### RELATED ISSUES

Chestnut blight (caused by *Cryphonectria parasitica*) has been confirmed for the first time in Britain on European sweet chestnut (*Castanea sativa*). The finds came from two small European sweet chestnut orchards in Warwickshire and East Sussex, central and southern England, respectively. Trees at both sites were from a nursery in France. The UK Forestry Commission and the Food and Environment Research Agency are working to eradicate the outbreaks, with surveys being conducted in nearby susceptible woodlands to delineate disease presence and follow-up inspections underway at locations where other sweet chestnut tree importations from the same source have occurred.

C. *parasitica* is a quarantine organism in the UK, requiring that symptomatic trees be reported to national plant health authorities and eradicated if found positive, and sweet chestnut plants imported into the UK must be accompanied by plant passports. There are an estimated 30,000 acres of sweet chestnut woodlands, located mostly in southern Britain. For more information on chestnut blight in the UK, go to the Forestry Commission's website at http://www.forestry.gov.uk/chestnutblight.

#### RELATED RESEARCH

Cunniffe, N.J.; Stutt, R.O.J.H.; van den Bosch, F.; and Gilligan, C.A. 2012. Time-Dependent Infectivity and Flexible Latent and Infectious Periods in Compartmental Models of Plant Disease. Phytopathology, Volume 102, Number 4, Pages 365-380. DOI: http://dx.doi.org/10.1094/PHYTO-12-10-0338.

**Kroon, L.P.N.M.; Brouwer, H.; de Cock, A.W.A.M.; and Govers, F. 2012. The** Genus *Phytophthora* Anno 2012. Phytopathology, Volume 102, Number 4, Pages 348-364.

Pintos Varela, C.; Rial Martínez, C.; Aguín Casal, O.; Mansilla Vázquez, J.P.; and Ares Yebra, A. 2012. First Report of *Phytophthora alni* subsp. uniformis on Black Alder in Spain. Plant Disease, Volume 96, Number 4, Pages 589-589.



### **MEETINGS**

The Fifth Sudden Oak Death Science Symposium (SOD 5) registration is now available online at <a href="http://ucanr.org/sites/sod5/Registration/">http://ucanr.org/sites/sod5/Registration/</a>. The "Early Bird" registration rate is \$250 until May 18. After that, registration rates increase to the full rate of \$275. For additional Symposium details, go to <a href="http://ucanr.org/sites/sod5/">http://ucanr.org/sites/sod5/</a>. For travel information or to secure overnight accommodations at the Sheraton, go to <a href="http://ucanr.org/sites/sod5/Travel\_and\_Lodging\_Information/">http://ucanr.org/sites/sod5/Travel\_and\_Lodging\_Information/</a>. The group room rate of \$110 per night is available until May 4, 2012, subject to availability.

Special events include the June 19<sup>th</sup> field trip "Sudden Oak Death: Biosecurity Concerns and Forest Restoration," which will include <u>Quarryhill Botanical Garden</u> and feature a talk on biosecurity by Clive Brasier, UK Forest Research; a hike at Bouverie Wildflower Preserve through oak woodlands with SOD discussions regarding long-term system changes and restoration; and the Matanzas Creek Winery and Lavender Farm for a tour of the lavender fields and wine tasting.

On Friday, June 22 "What are we trying to save? Tanoak: history, values and ecology" is a mini-fest of all things tanoak, with talks, wild foods to sample, and tanoak flooring and other wood products to view. These papers will be published as a book on tanoak: a compendium of what we have learned about this important Sudden Oak Death host.

### CALENDAR OF EVENTS

- **4/11 SOD Treatment Workshop; meet at oak outside of Tolman Hall, UC**Berkeley Campus; 1:00 3:00 p.m.; Pre-registration is required. This class is free and will be held rain or shine. To register, or for questions, email <a href="mailto:kpalmieri@berkeley.edu">kpalmieri@berkeley.edu</a>, and provide your name, phone number, affiliation and license number (if applicable), and the date for which you are registering. For more information, go to <a href="http://nature.berkeley.edu/garbelotto/english/sodtreatmenttraining.php">http://nature.berkeley.edu/garbelotto/english/sodtreatmenttraining.php</a>.
- **4/21 "A Planner's Guide for Oak Woodlands" webinar registrant optional field** trip to Hopland Research and Extension Center; For more information, go to <a href="http://ucanr.org/sites/oak range/Planners Guidelines for Oak Woodlands/">http://ucanr.org/sites/oak range/Planners Guidelines for Oak Woodlands/</a>.
- 4/21 Marin County Community SOD Blitz; 9:00 a.m.; Dominican University, Joseph R. Fink Science Center, Rm 103; For more information, contact Sibdas Ghosh at Sibdas.ghosh@dominican.edu.
- 4/28 East Bay (Orinda) Community SOD Blitz; 10:00 a.m.; Orinda Library, Garden Room; 26 Orinda Way, Orinda; For more information, contact Bill Hudson at wllm@earthlink.net.
- 4/28 East Bay (Berkeley) Community SOD Blitz; 1:00 p.m.; UC Berkeley, Mulford Hall, Rm. 159; For more information, contact Susan Schwartz at F5creeks@aol.com.
- 5/1 San Francisco Community SOD Blitz; 8:30 a.m.; Golden Gate Park Presidio and Golden Gate Park. For more information on the Presidio Blitz, contact Christa Conforti at CConforti@presidiotrust.gov. For more information on the



- Golden Gate Park Blitz, contact Gloria Koch-Gonzalez at Gloria.Koch-Gonzalez@sfgov.org.
- 5/1 Sudden Oak Death and ramorum blight: Disease symptoms and management tactics in forests and nurseries workshop; A free workshop for natural resource managers, foresters, horticulturists, plant health inspectors, and members of the public.; USFS Office, Gasquet; 1:00 3:00 p.m.; To register, please call (707) 464-7235. For more information, contact Yana Valachovic at yvala@ucdavis.edu.
- 5/2 SOD Treatment Workshop; meet at oak outside of Tolman Hall, UC Berkeley Campus; 1:00 3:00 p.m.; Pre-registration is required. For more information, see the 4/11 listing above.
- 5/5- "A Planner's Guide for Oak Woodlands" webinar registrant optional field trip to Sierra Foothill Research and Extension Center; For more information, go to <a href="http://ucanr.org/sites/oak\_range/Planners\_Guidelines\_for\_Oak\_Woodlands/">http://ucanr.org/sites/oak\_range/Planners\_Guidelines\_for\_Oak\_Woodlands/</a>.
- 5/5 Carmel Valley Community SOD Blitz; 9:00 a.m.; Garland Ranch Regional Park Visitor Center; 700 West Carmel Valley Rd.; For more information, contact Tim Jensen at tjensen@mprpd.org.
- 5/8 Sunol Community SOD Blitz; For more information, contact Ellen Natesan at ENatesan@sfwater.org.
- 5/12 Mount Tamalpais Community SOD Blitz; For more information, contact Andrea Williams at <a href="mailto:awilliams@marinwater.org">awilliams@marinwater.org</a>.
- 5/12 Napa Community SOD Blitz; 9:00 a.m.; Napa UCCE Classroom; 1710 Soscol Ave., Napa; For more information, contact Bill Pramuk at <a href="mailto:info@billpramuk.com">info@billpramuk.com</a>.
- 5/19 Sonoma Community SOD Blitz; For more information, contact Lisa Bell at lkbell@ucdavis.edu.
- 5/19 Santa Cruz Community SOD Blitz; 10:30 a.m.; Cal Fire Training Room; Gushee St. (behind forestry office at 6059 Highway 9), Felton; For more information, contact Nadia Hamey at nadiah@big-creek.com.
- 5/21 5/25 "4th International Workshop for *Phytophthora*, *Pythium*, and *Phytopythium*" and International Web Symposium, "Oomycetes of Regulatory Concern in International Trade;" University of Maryland, College Park, MD; The primary purpose of the workshop is to provide hands-on training on morphological and molecular tools used to identify species within genera. For more information, go to <a href="http://www.psla.umd.edu/faculty/Balci/workshop2011/index.cfm">http://www.psla.umd.edu/faculty/Balci/workshop2011/index.cfm</a>.
- 5/26 Los Altos Hills Community SOD Blitz; 10:30 a.m.; Council Chambers, Los Altos Hills Town Hall; 26379 Fremont Rd. Los Altos Hills; For more information, contact Sue Welch at sodblitz09@earthlink.net.
- 6/2 Woodside/Portola Valley Community SOD Blitz; 10:00 a.m.; Woodside Town Hall; 2955 Woodside Rd., Woodside; For more information, contact Debbie Mendelson at naturemend@sbcglobal.net.
- 6/2 Atherton Community SOD Blitz; For more information, contact Susan Finocchio at <a href="mailto:susanfin@earthlink.net">susanfin@earthlink.net</a>.
- 6/6 SOD Treatment Workshop; meet at oak outside of Tolman Hall, UC



- Berkeley Campus; 1:00 3:00 p.m.; Pre-registration is required. For more information, see the 4/11 listing above.
- 6/9 South Skyline Community SOD Blitz; 10:00 a.m.; Saratoga Fire Station, Skyline Blvd.; For more information, contact Jane Manning at skyline\_sod@yahoo.com.
- 6/16 Burlingame Hills Community SOD Blitz; 10:00 a.m.; 120 Tiptoe Lane (off Canyon Rd.), Burlingame; For more information, contact Steve Epstein at steveepstein0206@gmail.com.
- 6/19 6/22 The Fifth Sudden Oak Death Science Symposium (SOD 5);

  Sheraton Sonoma County; 745 Baywood Drive; Petaluma. For information on the conference, go to <a href="http://ucanr.org/sites/sod5/">http://ucanr.org/sites/sod5/</a>. For additional information regarding submission of abstracts and conference planning, contact Katie Palmieri at <a href="https://www.kpalmieri@berkeley.edu">kpalmieri@berkeley.edu</a>. To register, or for or questions regarding registration, go to <a href="http://ucanr.org/sites/sod5/">http://ucanr.org/sites/sod5/</a> or contact Janice Alexander at <a href="mailto:jalexander@ucdavis.edu">jalexander@ucdavis.edu</a>.
- 9/9 9/14 Sixth Meeting of the International Union of Forest Research
  Organizations IUFRO Working Party 7-02-09 "*Phytophthora* in Forests and
  Natural Ecosystems;" Colegio Mayor Universitario Nuestra Señora de la
  Asunción, Avd. Menéndez Pidal s/n, 14004 Córdoba, Spain; For more
  information, contact Mª Pérez Sierra at aperesi@eaf.upv.es or see
  <a href="http://iufrophytophthora2012.org/">http://iufrophytophthora2012.org/</a>.