

## USDA Forest Service, Pacific Southwest Research Station

### Sudden Oak Death/*Phytophthora ramorum* publications and presentations

#### 2010 – 2011 Publications

##### Journal /Refereed

Aukema, J.E.; Leung, B.; Kovacs, K.; Chivers, C.; Britton, K.O.; Frankel, S. J.; Englins, J.; Haight, R.; Holmes, T.; Liebhold, A. M.; McCullough, D. G.; Von Holle, B. 2011. Economic Impacts of Non-Native Forest Insects in the Continental United States. PLoS ONE 6(9): e24587. doi:10.1371/journal.pone.0024587

Aukema, J. E. ; McCullough, D. G.; Von Holle, B. ; Liebhold, A. M.; Britton, K.; Frankel, S. J. 2010. Historical Accumulation of Nonindigenous Forest Pests in the Continental United States. Bioscience. Vol. 60 No. 11. Pg 886 – 897. doi:10.1525/bio.2010.60.11.5.

Bezuidenhout, C.M.; Denman, S. ; Kirk, S.A.; Botha, W.J.; Mostert, L.; McLeod, A. 2010. *Phytophthora* taxa associated with cultivated *Agathosma*, with emphasis on the *P. citricola* complex and *P. capensis* sp. nov. Persoonia 25: 32–49.

Chimento, A.; Cacciola, S.O.; and Garbelotto, M. 2011. Detection of mRNA by reverse-transcription PCR as an indicator of viability in *Phytophthora ramorum*. Forest Pathology, 41: DOI: 10.1111/j.1439-0329.2011.00717.x.

Davidson, J. M.; Patterson, H. A.; Wickland, A. C.; Fichtner, E. J.; Rizzo, D. M. 2011. Forest type influences transmission of *Phytophthora ramorum* in California oak woodlands. Phytopathology 101:492-501.

Fichtner, E. J.; Rizzo, D. M.; Kirk, S. A.; Webber, J. F. 2011a. Root infections may challenge management of invasive *Phytophthora* spp. in U.K. woodlands. Plant Dis. 95:13-18.

Fichtner, E. J.; Rizzo, D. M.; Kirk, S. A.; Webber, J. F. 2011b. Infectivity and sporulation potential of *Phytophthora kernoviae* to select North American native plants. Plant Pathology. Doi: 10.1111/j.1365-3059.2011.02506.x

Goss, E. M.; Larsen, M.; Vercauteren, A.; Werres, S.; Heungens, K.; and Grünwald, N. J. 2011. *Phytophthora ramorum* detections in Canada: Evidence for migration within North America and from Europe. Phytopathology . 101:166-171. doi:10.1094/PHYTO-05-10-0133

Grünwald, N. J.; Martin, F. N.; Larsen, M. M.; Sullivan, C. M.; Press, C. M.; Coffey, M. D.; Hansen, E. M.; and Parke, J. L. 2010. Phytophthora-ID.org: A sequence-based *Phytophthora* identification tool. Plant Disease, Vol. 95, No. 3: 337-342.

Grünwald, N. J.; and Goss, E. M. 2011. Evolution and population genetics of exotic and reemerging pathogens: Traditional and novel tools and approaches. Annual Review of Phytopathology 49:5.1–5.19. DOI 10.1146/annurev-phyto-072910-095246.

- Haas, S. E.; Hooten, M. B.; Rizzo, D.M. ; Meentemeyer, R. K. 2011. Forest species diversity reduces disease risk in a generalist plant pathogen invasion. *Ecology Letters*. doi: 10.1111/j.1461-0248.2011.01679.x.
- Hayden, K.J.; Nettel, A.; Dodd, R.S.; Garbelotto, M. 2011. Will all the trees fall? Variable resistance to an introduced forest disease in a highly susceptible host. *Forest Ecology and Management*. 261: 1781–1791.
- Huberli, D.; Garbelotto, M. 2011. *Phytophthora ramorum* is a generalist plant pathogen with differences in virulence between isolates from infectious and dead-end hosts. *Forest Pathology* doi: 10.1111/j.1439-0329.2011.00715.x
- Hishinuma, S.; Coleman, T. W.; Flint, M. L.; and Seybold, S. J. 2011. Goldspotted oak borer: Field identification guide, University of California Agriculture and Natural Resources, Statewide Integrated Pest Management Program, 6 pp., January 2011, <http://www.ipm.ucdavis.edu/EXOTIC/GSOBfieldguide.html>
- Kovacs, K.; Holmes, T. P.; Englin, J. E.; Alexander, J. 2011. The Dynamic Response of Housing Values to a Forest Invasive Disease: Evidence from a Sudden Oak Death Infestation. *Environ Resource Econ DOI* 10.1007/s10640-010-9441-y.
- Kovacs, K.; Václavík, T.; Haight, R. G. ; Pang, A.; Cunniffe, N. J. ; Gilligan, N.J. ; Meentemeyer, R. K. 2011. Predicting the economic costs and property value losses attributed to sudden oak death damage in California (2010 - 2020). *Journal of Environmental Management*. 92(4):1292-1302.
- Lamsal, S.; Cobb, R. C. ; Cushman, J. H.; Meng, Q.; Rizzo, D. M.; Meentemeyer, R. K. 2011. Spatial estimation of the density and carbon content of host populations for *Phytophthora ramorum* in California and Oregon. *Forest Ecology and Management*. 262:6 989-998.
- Lee, C.; Valachovic, Y.; Garbelotto, M. 2010. Protecting Trees from Sudden Oak Death before Infection. University of California Agriculture and Natural Resources, Publication 8426. December. 14 pages.
- Meentemeyer, R.K.; Cunniffe, N.J.; Cook, A.R.; Filipe, J.A.N.; Hunter, R.D.; Rizzo, D.M.; and Gilligan, C.A. 2011. Epidemiological modeling of invasion in heterogeneous landscapes: Spread of sudden oak death in California (1990-2030). *Ecosphere* 2:art17. doi:10.1890/ES10-00192.1
- Meng, Q. and Meentemeyer, R.K. 2011. Modeling of multi-strata forest fire severity using Landsat TM data. *International Journal of Applied Earth Observation and Geoinformation*. 13 (2011) 120-126.
- Reeser, P.; Sutton, W. ; Hansen, E. 2011. *Phytophthora* species in tanoak trees, canopy-drip, soil, and streams in the sudden oak death epidemic area of south-western Oregon, USA. *New Zealand Journal of Forestry Science* 41S (2011) S65-S73.
- Riley, K. L., and Chastagner, G. A. 2011. First report of *Phytophthora ramorum* infecting mistletoe in California. Online. *Plant Health Progress* doi:10.1094/PHP-2011-0209-02-BR.

Riley, K. L., Chastagner, G. A., and Blomquist, C. 2011. First report of *Phytophthora ramorum* infecting grand fir in California. Online. Plant Health Progress doi:10.1094/PHP-2011-0401-01-BR.

Robin, C.; Piou, D. ; Feau, N.; Douzon, G.; Schenck, N. ; Hansen, E.M. 2010. Root and aerial infections of *Chamaecyparis lawsoniana* by *Phytophthora lateralis* : a new threat for European countries. Forest Pathology no. doi: 10.1111/j.1439-0329.2010.00688.x.

Sturrock, R. N.; Frankel, S. J. ; Brown, A. V. ; Hennon, P. E. ; Kliejunas, J. T.; Lewis, K. J.; Worrall, J. J. and Woods, A. J. 2011. Climate change and forest diseases. Plant Pathology. 60: 133–149.

Valachovic, Y.S.; Lee, C.A.; Scanlon, H.; Varner, J.M.; Glebocki, R.; Graham, B.D. and Rizzo, D.M. 2011. Sudden oak death-caused changes to surface fuel loading and potential fire behavior in Douglas-fir-tanoak forests. Forest Ecol. Mgt. 261:1973-1986 doi:10.1016/j.foreco.2011.02.024.

Vercauteren, A.; Larsen, M.; Goss, E.; Grunwald, N.; Maes, M.; and Heungens, K. 2011. Identification of new polymorphic microsatellite markers in the NA1 and NA2 lineages of *Phytophthora ramorum*. Mycologia. DOI: 10.3852/10-420.

### **Misc publications**

Anonymous. 2010 – 2011. California Oak Mortality Task Force monthly report. 11 monthly reports. (Published every month except January) Posted at [www.suddenoakdeath.org](http://www.suddenoakdeath.org).

Hulbert, J. and Navarro, S. 2011. Effective Collaboration Slows the Spread of Sudden Oak Death in Oregon. Western Forester Vol. 56. Number 3. Pages 12-13.

Palmieri, K.; Alexander, J.; Lee, C.; and Frankel, S.J. 2011. Sudden Oak Death and *Phytophthora ramorum*. 2010. Summary Report. Posted at [www.suddenoakdeath.org](http://www.suddenoakdeath.org).

Seybold, S. J. 2011. Invasive Woodboring Beetles. Western Pest Diagnostic Network Newsletter, June, 2011, Volume 4, Number 2, 1 pp.,  
<https://www.wpdn.org/common/newsletters/wpdn/WPDN%20Newsletter%202010-02.pdf>.

### **Thesis publications**

Kuljian, H.G. 2010. Assessing the Impact of Sudden Oak Death on Crown Fire Potential in Tanoak Forests of California. Thesis, Humboldt State University, Arcata, CA. 72 p.

McKeever, K. M. 2010. Characterizing Douglas-fir Tissue Colonization by the ‘Sudden Oak Death’ Pathogen, *Phytophthora ramorum*. December, M.S. Thesis. Washington State University. 122p.

Marissa Montjoy. 2011. Undergraduate Thesis. Environmental Science, Policy, and Management, UC Berkeley. Tanoak Resistance, 07-JV-022.

## Book of Abstracts publications

Anonymous. Meeting Abstracts. 58<sup>th</sup> Meeting of the California Forest Pest Council. November 16-17, 2010. Woodland, CA.

Anonymous. 2011. Abstracts from the Fourth International Workshop on Host-Parasite Interactions in Forestry. USDA Forest Service, Pacific Southwest Research Station. Albany, CA. 108 pgs.

## Video

“Super Rangers and the Legion of Bugs”2011. Produced by the Nature Conservatory, Continental Dialogue for Non-Native Forest Insect and Diseases. Directed by Martin Hamburger. Winner 2011 Yosemite Film Festival Silver Sierra Award for Animation.

## Abstracts

Aram, K. and Rizzo, D.M. 2011. *Phytophthora ramorum*'s trophic nature suggests that it cannot utilize dead leaf litter in aquatic systems. *Phytopathology* 101:S8.

Aram, K.; Swiecki, T.; Bernhardt, E.; and Rizzo, D.M. 2011. Canyon live oak (*Quercus chrysolepis*) is susceptible to bole infection by *Phytophthora ramorum*. *Phytopathology* 101:S8.

Frankel, S.J. and R.N. Sturrock. 2011. Climate change and forest diseases: Patterns of action. 2011 meeting abstracts, Ecology of Society of America. Austin, Texas. August 7 -12, 211.

Mehl, H.; Frankel, S. J.; Mori, S. 2010. True Fir Dwarf Mistletoe in the Sierras: Long-Term Growth and Mortality Trends. 2010 Meeting of the California Forest Pest Council. Nov 16-17, 2010. Sacramento. Abstract.

Mehl, H.; Frankel, S.; Mori, S.; Rizzo, D. and Adams, J. 2011. The Pest Trend Impact Plots Network: Putting the data to work. Southwide Forest Disease Workshop. February 7-12, 2011. Quincy, Florida. Abstract.

Oak, S.; Hwang, J.; and Jeffers, S. 2011. An in vitro baiting assay for recovery of *Phytophthora ramorum* from waterways. *Phytopathology* 101:S131.

Meadows, I.M. and Jeffers, S.N. 2011. Evaluation of commercial algaecides to mitigate *Phytophthora* spp. in naturally-infested water. *Phytopathology* 101:S119

Parke, J. L. , J. E. Eberhart, E. M. Hansen, and S. J. Frankel. 2011. Forest Phytophthoras of the World website. Abstract. 2011 American Phytopathological Society and the International Plant Protection Congress Joint Meeting. Honolulu, HI, August 6-10.

Parke, J. L. ; K. O. Britton, and S. J. Frankel. 2011. Historical pathways of introduction for non-indigenous forest pathogens. Abstract. 2011 American Phytopathological Society and the International Plant Protection Congress Joint Meeting. Honolulu, HI, August 6-10.

Seybold, S.J. and Coleman, T.W. 2010a. The goldspotted oak borer: An overview of a research program for "California's emerald ash borer." pp. 123—127 in K. A. McManus and K. W. Gottschalk (eds.). Proceedings, 21st U.S. Department of Agriculture Interagency Research Forum on Gypsy Moth and Other Invasive Species 2010, January 12-15, 2010; Gen. Tech. Rep. NRS-P-75. 156 pp., Newtown Square, Pennsylvania: USDA, Forest Service, Northern Research Station, December.

Tjosvold, S.; Chambers, D.; and Mori, S. 2011. Effect of environmental conditions and lesion age on sporulation of *Phytophthora ramorum* on California bay, rhododendron, and camellia. Abstract. 2011 American Phytopathological Society and the International Plant Protection Congress Joint Meeting. Honolulu, HI, August 6-10. *Phytopathology* 101:S177