

Development of *Phytophthora ramorum* Infection and Disease Symptoms on Coast Redwood Seedlings¹

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Abstract

Coast redwood (*Sequoia sempervirens*) is a host for *Phytophthora ramorum* but it is not clear if the pathogen represents a significant disease risk to this tree species. In an on-going field experiment, we are examining the process of infection and the development of symptoms on coast redwood seedlings in naturally infested sites in southern Humboldt County, California. In November 2006, healthy, potted redwood seedlings were placed amid tanoak and bay trees naturally infected with *P. ramorum*. Symptoms and disease incidence are being observed periodically, and every two months, a subset of redwood seedlings is destructively sampled to investigate the location and extent of tissue colonization by *P. ramorum*. To assess inoculum levels to which seedlings are exposed, and to correlate this with disease development, rainwater is being collected for quantification of *P. ramorum* propagules. Results of this study will help evaluate the risk of *P. ramorum* to coast redwood seedlings and inform land managers of the potential for reforestation of infested sites with this species.

Key words: *Phytophthora ramorum*, *Sequoia sempervirens*.

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