Phytophthora ramorum Research and Control in North Coastal California

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Mendocino, Humboldt, and Del Norte Counties are still relatively uninfested with *Phytophthora ramorum*, with limited infections in Humboldt and Mendocino, but at high risk for introduction and spread of the pathogen, primarily because of climate and vegetation. We have launched an integrated, adaptive monitoring and treatment program for the north coast that involves implementation of a variety of research and treatment approaches.

Research efforts have focused on sampling 45 frequently visited National, State and County recreation areas from central Mendocino County to the Oregon border. *P. ramorum* was recovered from only two locations near the known infestation in Redway. An additional research project is continuously sampling 31 strategically located streams from central Mendocino County to the Smith River near Oregon.

Treatment of Humboldt County's infested area near Redway has involved infested tree removal in an effort to slow the spread of the pathogen. The pathogen was recovered post-treatment in the downstream of Redway, demonstrating the persistence of the infestation owing to several factors such as incomplete cooperation from affected landowners, potential as-yet-unknown infected trees in the area, and possible pathogen presence in site soil. Future treatment options for the Redway sites and an additional infested area near Garberville will focus on a comparative study of other methods.