



**PHYTOPHTHORA SPECIES ASSOCIATED WITH TANOAK STEM CANKERS IN  
SOUTHWESTERN OREGON**

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From 2001 through 2006 stem cankers on tanoak (*Lithocarpus densiflorus*) were sampled during surveys to detect and eradicate *Phytophthora ramorum* from forests in southwestern Oregon. Pieces of bark from stem canker margins were plated on cornmeal agar amended with 10 ppm natamycin, 200 ppm Na-ampicillin, and 10 ppm rifampicin. *P. ramorum* was usually identified on the isolation plates by the presence of characteristic hyphae, chlamydospores, and sporangia. Other colonies resembling *Phytophthora* were isolated into pure culture and identified by examination of morphological features and by DNA sequence analysis. Selected isolates were tested for pathogenicity by inoculating healthy tanoak stems. Lesion margins were plated for re-isolation of the pathogen. *Phytophthora* species associated with tanoak stem cankers include *P. cambivora*, *P. species "Pg chlamydo," P. gonapodyides, P. nemorosa, P. pseudosyringae,* and *P. siskiyouensis*. Additional isolates may represent new species of *Phytophthora* and have not yet been identified.