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## Standardizing the Nomenclature for Clonal Lineages of the Sudden Oak Death Pathogen, *Phytophthora ramorum*

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## ABSTRACT

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*Phytophthora ramorum*, the causal agent of sudden oak death and ramorum blight, is known to exist as three distinct clonal lineages which can only be distinguished by performing molecular marker-based analyses.

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\*The *e*-Xtra logo stands for "electronic extra" and indicates that the online version contains supplemental information providing the materials and methods used for producing Figure 1.

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This article is in the public domain and not copyrightable. It may be freely reprinted with customary crediting of the source. The American Phytopathological Society, 2009. However, in the recent literature there exists no consensus on naming of these lineages. Here we propose a system for naming clonal lineages of *P. ramorum* based on a consensus established by the *P. ramorum* research community. Clonal lineages are named with a two letter identifier for the continent on which they were first found (e.g., NA = North America; EU = Europe) followed by a number indicating order of appearance. Clonal lineages known to date are designated NA1 (mating type: A2; distribution: North America; environment: forest and nurseries), NA2 (A2; North America; nurseries), and EU1 (predominantly A1, rarely A2; Europe and North America; nurseries and gardens). It is expected that novel lineages or new variants within the existing three clonal lineages could in time emerge.

*Additional keywords*: exotic pathogen, forensics, molecular ecology, phylogeography, population genetics.

*Phytophthora ramorum* Werres, De Cock & Man in't Veld is the exotic pathogen responsible for causing sudden oak death of coast live oak and tanoak in native forests of the Western United States and in other trees in Europe and the United States. It also causes ramorum blight of trees and woody ornamentals such as rhododendron and camellia in forest, retail or wholesale nursery, and garden environments in North America and Europe (4,13,