Phytophthora alticola and Phytophthora cinnamomi on Eucalyptus globulus in Portugal

Eugénio Diogo, Helena Machado, Ana Reis, Carlos Valente, Alan J.L. Phillips e Helena Bragança

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Abstract

Eucalypt, mostly Eucalyptus globulus, is the exotic tree species occupying the largest area of Portuguese planted forest. Eucalypts were introduced in the country more than one hundred years ago, but it was only in the second half of the twentieth century that the area of plantations grew with the onset of their use in the paper and pulp industry. As an exotic species, it was free from pests and diseases but gradually the number of insects and pathogens affecting these plants increased. In recent year, a new disease causing root rot and dieback has been detected with increasing frequency. In this work, two Phytophthora species, P. cinnamomi and P. alticola, were identified associated with these symptoms. Koch's postulates were fulfilled, proving that these two species are pathogenic to E. globulus. This is the first report of P. alticola outside South Africa. Although presently unknown, the possible factors associated with the increased occurrence of this disease are discussed.