Advances in plant conservation biology:

Implications for flora management and restoration

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PHYTOPHTHORA CINNAMOMI - A MAJOR THREATENING PROCESS TO FLORA BIODIVERSITY CONSERVATION IN SOUTH WESTERN AUSTRALIA

Bryan Shearer[1], Colin Crane[1], Sarah Barrett[2] and Anne Cochrane[1]

[1]Science Division, Department of Conservation and Land Management, Locked Bag 104 Bentley Delivery Centre, Bentley, Western Australia, Australia 6983
[2]South Coast Region, Department of Conservation and Land Management, 120 Albany Highway, Albany, Western Australia, Australia 6330

Phytophthora cinnamomi infestation is a major threatening process affecting the viability and genetic diversity of the flora of south-western Australia. Forty percent of the described plant species in the South-West Botanical Province are susceptible to the pathogen. However considerable variation of plant species susceptibility to *P. cinnamomi* within taxonomic units make occurrence within family and genus poor predictors of species susceptibility. The fungicide phosphite is a proven effective control strategy for the protection of threatened plant communities from *P. cinnamomi* infestation. Applications of the fungicide have slowed progress of the pathogen, but varying plant species responses to phosphite application is probably a major factor influencing effective control of *P. cinnamomi* by phosphite in native communities. While taxa are highly responsive to phosphite application and effective control is achieved, phosphite is not effective in other taxa and no control of the pathogen attained. Variation in susceptibility and phosphite effectiveness to *P. cinnamomi* within threatened flora and the genus *Lambertia* is described and implications for management of flora threatened by the pathogen discussed.