VARIATION EXHIBITED BY ISOLATES OF *PHYTOPHTHORA MEGASPERMA* CAUSING SEEDLING AND TREE DECLINE IN S-W AUSTRALIAN COASTAL NATIONAL PARKS

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Phytophthora megasperma is an active plant pathogen in National Parks directly to the north of Perth, and along the south coast in the Fitzgerald River National Park. Where active, *P. megasperma* has high impact on species contributing to habitat structure, e.g. *Banksia attenuata* in the northern sandplain and *B. speciosa* on the south coast. Eighty three isolates of *P. megasperma* retrieved from diseased native plants exhibiting foliar dieback symptoms were assessed for morphological and isozymic variation. Isozyme analysis of *P. megasperma* isolates from s-w Australia, three from South Australia, and six isolates from overseas representing the six putative taxa within the *P. megasperma* complex were undertaken. Genetic distances were determined according to Rogers (1), and unweighted pair groupings with arithmetic averaging (UPGMA) phenograms were constructed using the computer program BIOSYS-1 (2).

1. Rogers, J.S. (1972). Measures of genetic similarity. *Studies in Genetics* 7, 143-153. University of Texas Publication Number 7213.
2. Swofford, D.L. and Selander, R.K. (1981). A computer program for the analysis of allelic variation in genetics. *Journal of Heredity* 72, 281-283.

MEETING HANDBOOK

PHYTOPHTHORA

in Forests & Natural Ecosystems

2nd International IUFRO Meeting

Esplanade Hotel
Albany, Western Australia
30 September - 5 October 2001

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