New phytophthora strain found

by Francis Tay

CALM's Vegetation Health Service (VHS) has identified a species of *Phytophthora* collected near the South West town of Nannup and never before recorded in Western Australia.

It is the 16th species of *Phytophthora* recorded in the State and was among soil samples sent in to the VHS by CALM's Margaret River hardwood forest ranger Mike Wright for routine testing.

Carrying out the test, laboratory staff Nola D'Souza and Janet Webster found a subculture that was not a species regularly encountered in samples from natural vegetation.

The most common species in the South West of WA are *P. cinnamomi, P. citricola, P. cryptogea, P drechsleri* and *P. megasperma.* Traditional key charts and the electronic *Phytophthora* identification key INTKEY (established by CALM's Nicholas Lander and Helen Coleman) were used to identify the species, tentatively, as *P. boehmeriae.*

The culture was then sent to Centraalbureau Voor Schimmelcultures at the Institute of the Royal Netherlands Academy of Arts and Sciences, where it was confirmed as *P. boehmeriae.*

P. boehmeriae is known to occur in Taiwan, Japan, China, Greece and Argentina.

It is generally agreed that all *Phytophthora* species have been introduced into Australia following European settlement.

In Australia, *P. boehmeriae* was first reported in Queensland in 1962, where it was associated with deaths of *Pinus patula.*

It was later reported in New South Wales in 1976, where it was associated with deaths of *Eucalyptus pilularis.*

The WA fungus was similarly associated with the death of a *Persoonia longifolia.*

In all cases, however, tests failed to establish conclusively that death was caused by the fungus.

Workman's Pool, where Mike Wright collected the soil sample containing the fungus, is in St John's Conservation Park. It is near the site of the Barrabup Mill, which was operational between 1908 and 1925.

The site has a plantation of eastern states *Acacia* species, which may be the source of introduction for the fungus.

It is possible, therefore, that *Phytophthora boehmeriae* has been in Western Australia for many decades.

The VHS has submitted a short paper to the Australasian Plant Pathology Society journal, which is now being reviewed.

A culture of the fungus has been retained in the VHS culture collection, and has also been lodged at the Centraalbureau Voor Schimmelcultures in the Netherlands.

Left: Janet Webster and Francis Tay with Nola D'Souza (seated). Photo by Verna Costello