**Myrtle rust in natural ecosystems national workshop
Summary of outcomes
Australian National Botanic Gardens Canberra
12 December 2012**

**Aims of the Workshop:**

* To understand jurisdictional experiences on the risks of Myrtle Rust to natural ecosystems including management options for alleviating the risks in order to develop a national perspective. To raise awareness in jurisdictions not currently affected by Myrtle Rust of the potential risks to natural ecosystems.
* Identification of knowledge gaps in research strategies for Myrtle Rust.
* Preliminary consideration of the potential national coordination of the management of Myrtle Rust requirements following the Transition to Management phase.

**Introduction:**

The attendees were asked to separate into three discussion groups, with the following themes;

**Research -** Avenues for further research and the priorities therein.

**Environmental Management -** Strategies for continued environmental management and control of myrtle rust.

**Communications and Stakeholder engagement -** Strategies to improve communications and engagement between both state and commonwealth agencies, their stakeholders and the public.

**Research:**

Below is a synopsis of the issues discussed by this group which were focussed into areas surrounding the pathogen, its hosts and the environment it affects.

*Pathogen*;

* Taxonomy
* Population Genetics
* Identification
* Lifecycle and epidemiology
* Biological responses to climatic factors
* Disease forecasting – and strains/ intra- and interspecific variation and susceptibility

*Host*;

* Host range
* Genetics of resistance and tolerance
* Phenomics (phenotypic response by susceptible plant species to pathogen)

*Environment*;

* Impacts on various host plant species
* Monitoring programs- to establish baseline data sets on the reactions of susceptible species in the field. Consider prioritising field monitoring by hot spots/ high risk areas.
* Seed banking especially from plants displaying greater resistance, and priority conservation efforts for susceptible threatened species.
* Identification of effective management techniques for land managers.

**Environmental Management:**

Below is a synopsis of the issues discussed by this group which were focussed on areas surrounding the management, monitoring and control of the pathogen in the natural environment.

* Biological risks, political risks.
* The disease has a significant impact on Myrtaceous species which make up a major component of Australia’s native vegetation.
* Continued monitoring of the geographic distribution of the disease as well as its host range is needed to assess the level of threat to priority species and assets and to establish impact over time.
* Risk of shift in species composition includes potential for greater weediness.
* Restricting access in conservation parks to areas of myrtle rust infestations.
* Chemical control is not practically or effective for large conservation areas.
* Ensuring sensible practices around the management of nursery industry, revegetation programmes and fire management regimes to ensure there is no unnecessary spread of the disease.
* Consider pathways and vectors of spread in management planning
* Managing infestations in nature reserves/ parklands in order to slow the spread into native bushland.
* Consideration of the value of hygiene procedures for preventing the spread of the disease.
* There is a need for a standardised monitoring and observation manual/template for reporting incidences of the disease– Qld agreed that they could lead together with assistance from NSW which would assist Vic. This template would need to include a consistent and robust procedure for the collection of distribution and monitoring data. There also needs to be a central repository or interoperable databases for the above records to assist in the coordination of monitoring efforts. ERIN could provide the facilities for this (noting that ERIN is currently working with the states on mapping data for inclusion in a national map of myrtle rust infestation). DSEWPaC agreed to facilitate.
* Need cost benefit analysis to determine potential costs to the environment (non market values) with the spread of myrtle rust.
* Scenario testing is needed. What are the implications for fire management? What are the considerations for Indigenous communities?
* There is a need for national level coordination for the management of Myrtle Rust beyond the end of the Transition to Management program.

**Communications and Stakeholder engagement:**

Below is a synopsis of the issues discussed by this group which were focussed on communications between government agencies as well as to their stakeholders.

* There is too much emphasis on primary industry concerns in the management of Myrtle rust in the Australian environment.
* There needs to be a significant improvement in cross jurisdictional communications on the environmental management of Myrtle Rust and a sharing of knowledge through effective communication channels (both between governments and between governments and the public).
* Need for a national approach to community consultation and engagement – maybe the Australian Network for Plant Conservation or another larger national environment NGO could take the lead. Is a coordinated communications (both between governments and with stakeholders and the public) strategy or framework required?
* Public engagement and citizen science may assist with the monitoring and management of myrtle rust. Currently only one-way communication and need to look at how we obtain information from the public.
* There is a need to demonstrate to decision makers ‘what’s in it for them’.
* Next conference invite overseas experts i.e. Brazil to provide an international perspective to myrtle rust.

**Chairs concluding points:**

* PHA has committed to maintaining their Myrtle Rust website and the scientific advisory group beyond the June 2013 deadline on the transition to management program.
* It is important to continue coordination and communications between the States and Commonwealth agencies.
* Consistent monitoring of myrtle rust provides for building data bases and sharing of information.

**Key Priorities:**

* Establishing a consistent and robust monitoring and reporting program to track the distribution of Myrtle rust.
* Continued coordination of myrtle rust management at the national level is required beyond the end of the transition to management period.
* Improved communications between state and Commonwealth governments and the broader communication of the impacts and spread of myrtle rust to the public.
* The furthering of research with a focus on conserving vulnerable species that may be affected by myrtle rust, and to identify the behaviour of the pathogen in the environment to ascertain viable strategies that land managers can apply.

**List of workshop participants**

| Name  | Organisation  |
| --- | --- |
| Geoff Richardson | Marine Biosecrurity and Biodiversity, DSEWPaC  |
| Judy West  | ANBG Executive Director |
| David Taylor | ANBG  |
|   |   |
| Jo Nathan | DSEWPaC Environmental Biosecurity |
| David Forsyth | DSEWPaC Environmental Biosecurity |
| Alex Blanden | DSEWPaC Environmental Biosecurity |
| Neil Porter | DSEWPaC Risk Management Section |
| Cherie Hart | DSEWPaC/ ERIN |
| Dr. Lucy Sutherland | Australian Seed Bank Partnership |
| Stig Pederson | Booderee National Park |
| Nicholas Dexter | Booderee National Park |
| Andrew Stanton | Kakadu National Park |
| Jenna Taylor | Plant Health Australia |
| Greg Fraser | Plant Health Australia |
|  Rod Turner | Plant Health Australia |
| Dr. Colin Grant | Chief Executive, Plant Biosecurity, DAFF  |
| Dr. Chris Howard | Biosecurity Plant DivisionDAFF |
| Dr. David Letham | Biosecurity Plant DivisionDAFF |
| Dr. Suzy Perry | DAFF (Biosecurity) Queensland |
| Alison Saunders | RIRDC(Rural Industries Research & Development Corporation) |
| Bob Makinson | Royal Botanic Garden Trust Sydney |
| Dr. Edward Liew | Royal Botanic Garden Trust Sydney |
| Dr. Brett Summerell | Royal Botanic Garden Trust Sydney |
| Satendra Kumar | NSW Department of Primary Industries  |
| Jonathan Lidbetter | NSW Department of Primary Industries  |
| Graham Wilson | Department of Environment and Heritage NSW |
| Paul Mahon | Department of Environment and Heritage NSW |
| Hugh Bramwells | DSE Vic |
| Matt White | Department of Sustainability and Environment VIC |
| Dr. David Smith | Forest Pathologist/Entomologist, (Forest Health)Plant Biosecurity and Product IntegrityBiosecurity Victoria |
| Warren Worboys | Curator, Horticulture Royal Botanic Gardens, Cranbourne, Vic |
| Paul Blechynden  | Principal Coordinator for Invasive Species Department of Environment and Conservation WA.  |
| Tim Rudman  | Department of Primary Industries, Parks, Water and Environment TAS |
| Mr Mike Greig | Senior Ecologist Abundant Species and Sustainable Use, SA Department for Environment and Heritage |
| Dr. Louise Morin | CSIRO |
| Dr. Toni Chapman | Biosecurity NSW (NSW DPI) |
| Dr Mui-Keng Tan  | NSW DPI |
| Professor Robert Park | University of Sydney |
| Dr Karanjeet Sandhu | University of Sydney |
| Dr Carsten Kulheim  | ANU |
| Ms Sarah Hsei | ANU |
| Dr. Simon Southerton | CSIRO |
| Dr. Bala Thumma | CSIRO |
| Martin Horwood | NSW Department of Primary Industries  |
| Dr. Sandra Abell-Davis | Australian Tropical Herbarium, James Cook University (Representing WTMA) |
| Dr. Peter Thrall | CSIRO |
| Luke Barrett | CSIRO |
| Peter Grist | Manager – ResourcesAustralian Forest Products Association |
| Robert Prince | Chief Executive Officer, Nursery and Garden Industry Australia |
| Dr. Andrew Lyon | Principal Scientist I Science and Technical Standards Forest Products Commission |