

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 Biosecurity 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 Division DAFF
Dr. David Letham	Biosecurity Plant Division DAFF
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

Name	Organisation
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 Integrity Biosecurity 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 – Resources Australian Forest Products Association

Name	Organisation
Robert Prince	Chief Executive Officer, Nursery and Garden Industry Australia
Dr. Andrew Lyon	Principal Scientist I Science and Technical Standards Forest Products Commission

