Biosecurity New Zealand
Tiakitanga Pūtaiao Aotearoa

MPI 18607 Project Report

Myrtle Rust – List of overseas researchers

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1 Project background

To better understand myrtle rust and limit its impact in New Zealand, the Ministry for Primary Industries commissioned a comprehensive research programme in 2017 with more than 20 projects valued at over $3.7 million. Projects in this programme were completed by June 2019.

The projects covered research in the following themes:

- Theme 1 - Understanding the pathogen, hosts, and environmental influence.
- Theme 2 – Building engagement and social licence: Improved understanding of public perceptions and behaviours to allow better decisions about investment, improved design of pathway control strategies and maintain social license for use of management tools.
- Theme 3 – Te Ao Māori: Greater understanding of Te Ao Māori implications of myrtle rust in order to support more effective investments, and improved use of Mātauranga, specific Māori knowledge, and kaupapa Māori approaches in management regimes.
- Theme 4 – Improving management tools and approaches: Improved diagnostic and surveillance speed, accuracy and cost-effectiveness, supporting eradication efforts and enabling scaling up of surveillance efforts for a given resource. More effective treatment toolkits to avoid emergences of MR resistance to treatments and to enable disease control over increasingly large scales that will lead to reduced or avoided impacts.
- Theme 5 - Evaluating impacts and responses: Improved understanding of environmental, economic, social and cultural, impacts to inform risk assessment and management and to communicate implications to decision/makers and stakeholders.

This report is part of the MPI commissioned research under contract MPI18607 which addressed research questions within Theme 2, 4 and 5.

The list of overseas researchers was compiled as background information and part of the larger report on “Potential disease control tools” and is a list accurate as of March 2018.

2 Myrtle rust: List of researchers

Country	Researcher	Organization	Theme	Contact
Australia	Tim Wardlaw	Forestry Tasmania, Hobart, Tasmania, Australia University of Tasmania	Host susceptibility	Timothy.Wardlaw@utas.edu.au
Australia	Amrit Kathuria	NSW Department of Primary Industries NSW Forest Science Parramatta Australia	Assessing impacts on hosts	amrit.kathuria@dpi.nsw.gov.au
Australia	Angus J. Carnegie	NSW Department of Primary Industries NSW Forest Science Parramatta Australia	Taxonomy. Assessing impacts on hosts	angus.carnegie@dpi.nsw.gov.au
Australia	Brad M. Potts	School of Biological Sciences and ARC Training Centre for Forest Value, University of Tasmania, Private Bag 55, Hobart, Tasmania 7001, Australia	Host susceptibility	B.M.Potts@utas.edu.au
Australia	Carlos Bustos-Segura	Past-Evolution, Ecology and Genetics, Research School of Biology, The Australian National University, Canberra, Australia Present - Institute of Biology, Laboratory of Evolutive Entomology, University of Neuchatel, Rue Emile-Argand 11, 2000 Neuchatel, Switzerland	The effect of plant chemotypes on the pathogen	bustossc@gmail.com
Australia	Caroline L. Mohammed	Tasmanian Institute of Agriculture, University of Tasmania, Hobart, Australia	Microsatelite analysis to determine genetic relationships	Caroline.Mohammed@utas.edu.au
Australia	Carsten Külheim	Evolution, Ecology and Genetics, Research School of Biology, The Australian National University, Canberra, Australia	The effect of plant chemotypes on the pathogen Plant resistance	carsten.kulheim@anu.edu.au
Australia	David J. Lee	University of the Sunshine Coast, Maroochydore DC Qld 4558 Australia, and Forestry Biosciences, Agri-Science Queensland, Department of Agriculture, Fisheries and Forestry, Brisbane Qld 4001 Australia	Screening for resistance	dlee@usc.edu.au
Australia	Darren Kriticos	CSIRO	Bioclimatic models to study invasion biology	Darren.Kriticos@csiro.au
Australia	Fiona R. Giblin	Forest Industries Research Centre University of the Sunshine Coast, Maroochydore, Australia and Plant Biosecurity Cooperative Research Centre, Bruce, Australia Department of Agriculture and Fisheries, Queensland, The University of Queensland		fion.giblin@daff.qld.gov.au
Australia	Geoff Pegg	Department of Agriculture, Fisheries and Forestry. Brisbane/ Qld and Plant Biosecurity Cooperative Research Centre, Bruce, Australia	Screening for resistance, impact on natural ecosystems	geoff.pegg@daff.qld.gov.au
Australia	David Guest	Univ Sydney, Fac Agr & Environm, Dept Plant & Food Sci, Eveleigh, NSW 2016	Plant resistance	david.guest@sydney.edu.au
Australia	Haifeng Li	School of Agricultural Science, University of Tasmania, Hobart, Tasmania 7001, Australia?	Host susceptibility	
Australia	Hsieh, JF	Australian Natl Univ, Res Sch Biol, Canberra, ACT 2602	Plant resistance	jifan.hsieh@gmail.com
Australia	Jeremy Todd Brawner	Forest Industries Research Centre, University of the Sunshine Coast and CSIRO Plant Industries, St. Lucia Qld 4067 Australia		jbrawner@usc.edu.au
Australia	Jules S. Freeman	School of Biological Sciences and ARC Training Centre for Forest Value, University of Tasmania, Private Bag 55, Hobart, Tasmania 7001, Australia	Genetic basis of variation in rust resistance in Eucalyptus and host susceptibility	Jules.Freeman@utas.edu.au
Australia	Karanjeet S. Sandhu	School of Biological Sciences and ARC Training Centre for Forest Value, University of Tasmania, Private Bag 55, Hobart, Tasmania 7001, Australia The University of Sydney	Host susceptibility	karanjeet.sandhu@sydney.edu.au
Australia	Haydar Karaoglu	Faculty of Agriculture and Environment, Plant Breeding Institute, The University of Sydney, Cobbitty, NSW, Australia	Pathogen genotyping	haydar.karaoglu@sydney.edu.au

Country	Researcher	Organization	Theme	Contact
Australia	Matthew Nagel	NSW Department of Primary Industries NSW Forest Science Parramatta Australia	Assessing impacts on hosts	
Australia	Morag Glen	Tasmanian Institute of AgricultureUniversity of TasmaniaHobartAustralia	Microsatelite analysis to determine genetic relationships. Epitypification	Works with closely with Caroline Mohammed.
Australia	Paul Tilyard	School of Biological Sciences and ARC Training Centre for Forest Value, University of Tasmania, Private Bag 55, Hobart, Tasmania 7001, Australia	Host susceptibility	
Australia	Peter Entwistle	North East Agricultural ServicesMcLeans Ridge, Australia	Assessing impacts on hosts	
Australia	Robert Park	Faculty of Agriculture and Environment, Plant Breeding Institute, The University of Sydney, Cobbitty, NSW, Australia	P. psidii markers, genotypes, host susceptibility	
Australia	Sandhu, KS	Faculty of Agriculture and Environment, Plant Breeding Institute, The University of Sydney, Cobbitty, NSW, Australia	Pathogen genotyping	
Australia	Shivas, R.G	Dept Agr Fisheries & Forestry, Plant Pathol Herbarium, Biosecur Queensland, Brisbane, Qld 4001, Australia	Diagnostics/P. psidii detection by PCR	
Australia	Tobias, PA	Univ Sydney, Fac Agr & Environm, Dept Plant & Food Sci, Eveleigh, NSW 2015	Plant resistance	
Australia	William Foley	Evolution, Ecology and Genetics, Research School of BiologyThe Australian National University Canberra Australia	The effect of plant chemotypes on the pathogen.	
Australia	Zhang, P	Faculty of Agriculture and Environment, Plant Breeding Institute, The University of Sydney, Cobbitty, NSW, Australia	Pathogen genotyping	
Australia	Jackie Edwards		Incursion response	Jacky.Edwards@ecodev.vic.gov.au
Brazil	Acelino C. Alfenas	Department of Plant Pathology, BIOAGRO Federal University of Viçosa Viçosa Brazil	Microsatelite analysis to determine genetic relationships	
Brazil	Arthur A. Silva	Departamento de FitopatologiaUniversidade Federal de ViçosaViçosaBrazil	Epitypification	
Brazil	Olinto L. Pereira	Departamento de FitopatologiaUniversidade Federal de ViçosaViçosaBrazil	Epitypification	
Brazil	Patrícia da S. Machado	Department of Plant Pathology, BIOAGRO Federal University of Viçosa Viçosa Brazil	Microsatelite analysis to determine genetic relationships	
Brazil	Rafael F. Alfenas	Department of Plant Pathology, BIOAGRO Federal University of Viçosa Viçosa Brazil	Microsatelite analysis to determine genetic relationships	
Brazil	Rodrigo N Graça	Departamento de FitopatologiaUniversidade Federal de ViçosaViçosaBrazil		
Columbia	Carlos Rodas		Forest pathologist working on MR	Carlos Rodas <carlos.rodas@smurfitkappa.com.co>
Costa Rica	Marcela Arguedas	Instituto Tecnológico de Costa Rica, Costa Rica		
Japan	Nami Minato	University of Tokyo. Tokyo Japan		

Country	Researcher	Organization	Theme	Contact
Japan	Shigetou Namba	University of Tokyo. Tokyo Japan		
Paraguay	Mauricio Morán	Desarrollos Madereros S.A., Paraguay		
South Africa	Alistair McTaggart	University of Pretoria, Forestry and Agricultural Biotechnology Institute (FABI). South Africa		
South Africa	Ginna Marcela Granados	University of Pretoria, Forestry and Agricultural Biotechnology Institute (FABI). South Africa		
South Africa	Jolanda Roux	University of Pretoria, Forestry and Agricultural Biotechnology Institute (FABI). South Africa		
South Africa	Louise Shuey	University of Pretoria, Forestry and Agricultural Biotechnology Institute (FABI). South Africa	Genetic mechanisms associated with resistance to myrtle rust in *Eucalyptus*	
South Africa	Marcel Verleur	Sappi Forests Ltd, Pietermaritzburg, South Africa		
South Africa	Michael Wingfield	University of Pretoria, Forestry and Agricultural Biotechnology Institute (FABI). South Africa		
South Africa	Bernard Slippers		Taking over FABI from Mike W., should know what FABI work is happening on MR	
South Africa	Teresa Couthino	University of Pretoria, Forestry and Agricultural Biotechnology Institute (FABI). South Africa		
South Korea	Mee-Sook Kim,	Kookmin University, South Korea		
Uruguay	Carlos Perez	Facultad de Agronomia. Universidad de la Republica. Uruguay		caperez@fagro.edu.uy
Uruguay	Sofia Simieto	National Institute for Agriculture Research, INIA. Uruguay	Races. Host susceptibility. Plant resistance.	ssimeto@tb.inia.org.uy
USA	Phil Cannon	USDA ARS, Vallejo, CA 94592 USA	Pathogenicity of strains	Cannon, Phil -FS <pcannon@fs.fed.us>
USA	Rob Hauff	Dept Forestry & Wildlife, Honolulu, HI 96813 USA	Pathogenicity of strains	
USA	Ross-Davis, A. L	US Forest Serv, USDA, Rocky Mt Res Stn, Moscow, ID USA	Pathogen/genotypes distribution (worlwide)	
USA	Sylvia Mori	USDA ARS, Pacific Southwest Res Stn, Albany, CA 94710 USA	Pathogenicity of strains	
USA	Ned Klopenstein		Generally knows who's doing what around the world on MR	

3 Acknowledgements

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