

CONFERENCE PROGRAMME: DAY 1

**Monday 8th May 2017**

\*Invited speaker

8:00–9:00am MORNING TEA/REGISTRATION in Amokura Gallery (4 <sup>th</sup> Floor)	
9:00	MIHI – Biological Heritage National Science Challenge Kāhui Māori
9:30	OPENING ADDRESS: James Buwalda Chair of Governance Group of the Biological Heritage National Science Challenge and Andrea Byrom, Director of BHNSC
10:00	PLENARY: <i>Dr Jan Wright</i> , Parliamentary Commissioner for the Environment Taonga of an island nation: saving New Zealand's native birds
10:45	PLENARY: <i>Kim Tallbear</i> , Associate Professor, University of Alberta Decolonizing Science & Technology
11:30	PLENARY: <i>Sandy Liebhold</i> , Research entomologist, USDA Forest Service, West Virginia New approaches to managing insect incursions: An international collaboration.

12:00–1:00pm LUNCH in Amokura Gallery (4 <sup>th</sup> Floor)	
CONCURRENT SYMPOSIA	
INDIGENOUS VALUES – BIOCULTURAL HERITAGE	BIOSECURITY 2025
Chair: <b>Holden Hohaia</b> , GM Māori Development Landcare Research Manaaki Whenua Room: <b>Icon (2<sup>nd</sup> Floor)</b>	Chair: <b>Jen Scouler</b> , CEO, New Zealand Avocado Room: <b>Amokura Gallery (4<sup>th</sup> Floor)</b>
1:00 <b>Crazy &amp; Ambitious – Enshrining Vision Mātauranga into the Biological Heritage Challenge, the bigger picture.</b> Melanie Mark-Shadbolt, Māori Manager & Amanda Black, Kaihautū of BHNSC	<b>Overview of biosecurity in New Zealand: Opportunities to make a difference.</b> Roger Smith, Chief Operations Officer, Ministry for Primary Industries
1:15 <b>Why should we include Vision Mātauranga and Mātauranga Māori in our research?</b> A non- Māori perspective. Andrea Byrom, Director, BHNSC	<b>Biosecurity – are we really trying to stop the tide?</b> Barry O'Neill, CEO, Kiwifruit Vine Health
1:30 <b>Engaging Tangata Whenua - a model for community engagement.</b> Alby Marsh, Māori Relationship Advisor, Te Raranga Ahumara, Plant & Food Research	<b>End to End: Innovative science across the border biosecurity continuum.</b> Dave Teulon, Director, Better Border Biosecurity, Plant & Food Research
1:45 <b>A Tuawhenua Māori worldview defines relationship between people &amp; biodiversity.</b> Puke Timoti, Tūhoe Tuawhenua Trust & Phil Lyver, Landcare Research Manaaki Whenua	<b>Port of Tauranga Biosecurity Excellence - A key partnership targeting biosecurity challenges of the future.</b> Mark Whitworth, Port of Tauranga
2:00 <b>What's Māori about Māori science? The Pūtaiao paradox.</b> Georgina Stewart, Auckland University of Technology	<b>From pets to pests: threat of invasion from the trade in new alien species.</b> Phillip Cassey*, Associate Professor, University of Adelaide
2:15 <b>Disrupting the Narrative: Māori Student Engagement in Science through Pūhoro.</b> Naomi Manu, Massey University	<b>PANEL DISCUSSION: Biosecurity:2025 and beyond</b> Chair: David Teulon (Plant & Food Research), Panellists: Bill Dyck (Forest Owners Association), Chris Morley (DairyNZ), Richard Bowman (Environment Southland), Richard Palmer (Horticulture NZ), Thomas Malcolm (Te Tira Whakamātaki, Māori Biosecurity Network), Veronica Herrera (MPI), Alan Ross (DOC)
2:30 <b>Preventing a fatal attraction: disrupting the spread of kauri dieback disease.</b> Monica Gerth, University of Otago	
2:45 <b>Ahi Pepe MothNet.</b> Barbara Anderson, Landcare Research Manaaki Whenua	

**Monday 8th May 2017 cont'd.**

\*Invited speaker

3:00–3:30pm AFTERNOON TEA in Amokura Gallery (4 <sup>th</sup> Floor)	
CONCURRENT SYMPOSIA	
INDIGENOUS VALUES – BIOCULTURAL HERITAGE	BIOSECURITY 2025
Chair: <b>Jamie Ataria</b> Bio-Protection Research Centre, Lincoln University and <b>Thomas (Tame) Malcolm</b> , Kāhui Māori, Biological Heritage NSC & Waikato Regional Council Room: <b>Icon (2<sup>nd</sup> Floor)</b>	Chair: <b>Sandy Liebhold</b> , Research entomologist, USDA Room: <b>Amokura Gallery (4th Floor)</b>
3:30 <b>PANEL DISCUSSION: Who owns biodiversity genetic data?</b> Panellists: <i>Kim TallBear</i> (Associate Professor, University of Alberta), <i>Aroha Mead</i> (Chair Emeritus IUCN CEESP), <i>Peter Dearden</i> (Professor, University of Otago), <i>Tammy Steeves</i> (Senior Lecturer, University of Canterbury) Panel discussion will finish at 4:25pm allowing speakers and delegates time to move upstairs to the Amokura Gallery for the plenary addresses.	<b>In search of the Cheshire cat's smile.</b> John Kean, AgResearch <b>Is the supply of invasive species limited?</b> Eckehard Brockerhoff, Scion <b>R3- The importance of Relevant Research in managing Biosecurity Risk: What's on our Radar, how do they Rank and what's our Return on investment?</b> Christine Reed, MPI <b>Risk-based Approach (R-bA) for regulation of high risk Phytophthora species at the New Zealand border.</b> Anusara Herath, MPI
4:00	
4:15	
4:30	Melanie Mark-Shadbolt and Amanda Black, Bio-Protection Research Centre <b>Te Tira Whakamātaki:</b> Māori Biosecurity Network
4:45	PLENARY: <i>Jacqueline Beggs</i> , Director of Centre for Biodiversity and Biosecurity, University of Auckland. Balancing biosecurity priorities: are natural ecosystems the poor cousins?
5:30	Hon Paul Goldsmith, Minister of Science and Innovation
6:00pm DAY 1 CONFERENCE END	

Name: \_\_\_\_\_

Wifi Password: events



8-10 MAY 2017 / TE PAPA, WELLINGTON

NOT YOUR USUAL NATIONAL MEETING

**CRAZY & AMBITIOUS**

Ngā Kōhira  
Tuku Iho

NEW ZEALAND'S  
BIOLOGICAL  
HERITAGE

National  
SCIENCE  
Challenges

Conference Programme



We are very grateful for the support of our Challenge Parties.



5:45pm DAY 3 CONFERENCE END

5:30	CONFERENCE CLOSE: Andrea Byrom, Challenge Director
5:15	Speakers and delegates to move upstairs to the Amokura Gallery for the closing address.
5:15	<b>What does the public know about our native birds?</b> Sophie Fern*, Biologist and story-teller
5:00 - 4:45	<b>Non-traditional partnerships are fundamental to the management of domestic cats.</b> Mylanwy Emery, Wellington City Council
4:45	<b>Landcare scale biodiversity restoration - an iwi and community driven process.</b> Peter Handford, Groundtruth
4:30	<b>Ships in the night – the vexed interface of environmental policy and ecological limits in New Zealand.</b> Marie Brown*
4:15	<b>Citizen science for refinement of kauri dieback control tools.</b> Ian Horner, Plant & Food Research
4:00	<b>Biodiverse cities and a kiwi in every garden.</b> Claire Freeman, University of Otago
3:30	<b>Citizen science for conservation: how can we do better here?</b> Monica Peters*, people+science
3:30	<b>Perspectives on threatened species conservation.</b> Te Rūnanga o Ngāi Tahu
3:50	<b>The future of zoos in conservation</b> Karen Fifeild, Chief Executive Wellington Zoo
4:05	<b>Why business should invest in threatened species</b> Neal Barclay, GM Meridian Energy
4:25	<b>Why protecting nature on private land is pivotal to agriculture's future success.</b> Nuffield Scholar – Dan Steele, Blue Duck Lodge
4:40	<b>Panel: Opportunities and challenges of recovery of threatened plants and animals on private and farming land.</b> Panel chair: Scott Simpson, Mr. Panellists: William Rolleston (President, Federated Farmers), Mike Jebson (Chief Executive of QELT Trust), Ngāire Tyson (Landcare Trust).
5:10	<b>Closing Address: Director-General of Conservation: Lou Sanson: Threatened Species Ambassador</b> Nicola Toki and Biological Heritage Director Andrea Byrom.
5:25	<b>Karakia, Joe Harawira, DOC</b>

**Wednesday 10th May 2017 cont'd.**

CONFERENCE PROGRAMME: DAY 3



## CONFERENCE PROGRAMME: DAY 2

### Tuesday 9th May 2017

\*Invited speaker

8:30am	<b>PLENARY: Fiona Carswell</b> , Chief Scientist, Landcare Research Manaaki Whenua Growing the pie: How the BioHeritage Challenge is shaping NZ's bioheritage research
9:00	<b>PLENARY: Nigel French</b> , Professor, Massey University How the revolution in pathogen genomics is informing biosecurity, food safety and public health in New Zealand
9:30	<b>PLENARY: Andrew Young</b> , Director of National Research Collections, CSIRO Biological collections: Essential biodiversity research tools for the 21st Century

10:00–10:30pm MORNING TEA in Amokura Gallery (4<sup>th</sup> Floor)

CONCURRENT SYMPOSIA		
Chair:	PREDATOR-FREE NZ 2050 Roger Pech, Principal Scientist, Landcare Research Manaaki Whenua	GENOMICS AND DISRUPTIVE TECHNOLOGIES Neil Gemmill, Professor, University of Otago
Room:	Amokura Gallery (4 <sup>th</sup> Floor)	Icon (2 <sup>nd</sup> Floor)
10:30	<b>Science for conservation.</b> <i>Mick Clout*</i> , Emeritus Professor, University of Auckland	<b>(Gene) Driving pests to extinction.</b> <i>Peter Dearden*</i> , Professor, University of Otago
10:45	<b>Cape Sanctuary and its role in the Cape to City widescale predator control project.</b> <i>Andy Lowe*</i> , Managing Director, Lowe Corporation	<b>Ambitious, but not crazy: Identification and recommendation of standardised molecular procedures for the identification of all life from environmental DNA.</b> Gavin Lear, University of Auckland
11:00	<b>Cape to City – challenging the boundaries.</b> <i>Campbell Leckie*</i> , Land Services Manager, Hawke's Bay Regional Council	<b>Caring for environmental DNA data (through sharing).</b> Austen R. D. Ganley, University of Auckland
11:15	<b>The Taranaki Mounga project – landscape scale ecological transformation.</b> <i>Jan Hania*</i> , Environment Director, NEXT Foundation	<b>Drivers of change in microbial diversity and function in New Zealand soils.</b> Steve Wakelin, Scion
11:30	<b>Conservation – sideshow or the main act?</b> <i>Paul Atkins*</i> , CEO, Zealandia	<b>Environmental DNA and wildlife surveillance; From promise to delivery.</b> Dianne Gleeson, University of Canberra
11:45	<b>High tech solutions to invasive mammal pest control.</b> James Russell, University of Auckland	<b>Pathogen genomics and biosecurity.</b> Bevan Weir, Landcare Research
12:00pm	<b>New sensor approaches to sniff out invasive mammal pests.</b> Andrew Kralicek, Plant & Food Research	<b>Compare and contrast: genetic diversity and population structure utilising genotyping-by-sequencing.</b> Shannon Clarke, AgResearch
12:15	<b>The Cacophony Project - using digital technologies to make trapping 80,000 times more efficient.</b> Grant Ryan, The Cacophony Project	<b>Analysis of genetic composition of Argentine stem weevil populations using genotyping-by-sequencing.</b> Jeanne Jacobs, AgResearch

12:30–1:30 LUNCH in Amokura Gallery (4<sup>th</sup> Floor)

### Tuesday 9th May 2017 cont'd.

\*Invited speaker

CONCURRENT SYMPOSIA		
Chair:	PREDATOR-FREE NZ 2050 Andrea Byrom, Director, BioHeritage NSC	GENOMICS AND DISRUPTIVE TECHNOLOGIES Peter Dearden, Professor, University of Otago
Room:	Amokura Gallery (4 <sup>th</sup> Floor)	Icon (2 <sup>nd</sup> Floor)
1:30	<b>Ambitious proposals have a long history: which ones worked and why?</b> Carolyn King, University of Waikato	<b>Genetic tools for pest eradication and control – not crazy, just ambitious.</b> <i>Neil Gemmill*</i> , Professor, University of Otago
1:45	<b>A blueprint for a data commons.</b> James Mansell, Noos Ltd.	
2:00	<b>A roadmap to Predator-Free New Zealand.</b> <i>Richard Bowman*</i> , Biosecurity Manager, Environment Southland.	<b>Why saving species and resurrecting species are the same, and why it matters.</b> Mike Dickson, Whanganui Regional Museum
2:15	<b>PANEL SESSION: From crazy to collaboration – discussing the merits of Predator-Free 2050.</b> <i>Chair: Andrea Byrom (Director, BHNSC). Panellists: Jamie Steer (University of Auckland), Nicola Toki (DOC), Judy Gilbert (Windy Hill Restoration Trust Great Barrier Island), James Russell (University of Auckland), Devon Mclean (Project Jansoon; PFNZ 2050 Board), Wayne Linklater (Victoria University)</i>	<b>Modelling the application of new genetic-based tools to pest management.</b> Aidin Jalilzadeh, Landcare Research Manaaki Whenua
2:30		<b>Realising the promise of conservation genomics: an accelerated approach.</b> Tammy Steeves, University of Canterbury
2:45		<b>Exploiting the chemical ecology of invasive species for biosecurity.</b> Maxwell Suckling, Plant & Food Research

3:00–3:30pm AFTERNOON TEA in Amokura Gallery (4<sup>th</sup> Floor)

CONCURRENT SYMPOSIA		
Chair:	PROTECTING NZ'S PRIMARY INDUSTRIES Travis Glare, Director, Bio-Protection Research Centre	SOCIAL LICENCE TO OPERATE Nick Waipara, Kaihautū BHSC & Principal Advisor for Biosecurity, Auckland Council
Room:	Amokura Gallery (4 <sup>th</sup> Floor)	Icon (2 <sup>nd</sup> Floor)
3:30	<b>Pastures; are they New Zealand's most neglected ecosystem?</b> <i>Stephen Goldson*</i> , Principal Scientist, AgResearch	<b>The value of trust &amp; social licence in NZ's primary sector.</b> Peter Edwards, Scion
3:45	<b>New Zealand eradication of bovine TB - a bold new target.</b> Stu Hutchings, OSPRI	<b>If we build it, will they use it? Exploring NZers social licence towards novel pest control methodologies.</b> Edy Macdonald, DOC
4:00	<b>How effective have biosecurity measures been in preventing the introduction of plant pathogens to New Zealand?</b> Phil Hulme, Bio-Protection Research Centre	<b>Bringing the 'Trickster Wasp' into the discourse on biotechnological controls of 'pest wasps'</b> Ocean Ripeka Mercier, Victoria University
4:15	<b>Piloting area-wide sterile insect releases of codling moth in New Zealand.</b> James Walker, Plant & Food Research	<b>Is nature a luxury?</b> Danielle Shanahan, Zealandia
4:30	<b>Enhancing surveillance capabilities - building a partnership.</b> Steve Pawson, Scion	<b>Whakarongo ki te hapori - Listen to the community first - talk second.</b> Jo Ritchie
4:45	Speakers and delegates to move upstairs to the Amokura Gallery for the plenary address.	
4:50	<b>PLENARY: Kevin Prime*</b> , Environment Commissioner, Farmer, Forester, Beekeeper, Conservationist. What is Kaitiakitanga?	
5:30	<b>POSTER SESSION/RECEPTION</b> Enter Landcare Research's #BlitzMe competition and win a backyard BioBlitz for the not-for-profit of your choice.	

7:00pm DAY 2 CONFERENCE END

## CONFERENCE PROGRAMME: DAY 3

### Wednesday 10th May 2017

\*Invited speaker

8:30am	<b>PLENARY: Joshua Viers*</b> , Associate Professor, University of California. Black Swan-Brown River: How a free-flowing river transformed California's approach to river management
9:00	<b>Karakia and mihi whakatau,</b> Joe Harawira, DOC
9:10	<b>Lou Sanson</b> , Director General, Department of Conservation
9:15	<b>Hon Maggie Barry</b> , Minister of Conservation
9:30	<b>Predator Free 2050 – advancing the programme.</b> Predator Free 2050 Ltd Board – Arihia Bennett and Mervyn English

10:00–10:15pm MORNING TEA in Amokura Gallery (4<sup>th</sup> Floor)

CONCURRENT SYMPOSIA		
Chair:	ECOSYSTEM RESTORATION Bruce Clarkson	THREATENED SPECIES SUMMIT SESSION 1: Uniting against Invaders Lou Sanson
Room:	Icon (2 <sup>nd</sup> Floor)	Amokura Gallery (4 <sup>th</sup> Floor)
10:15	<b>Freshwater restoration: Challenges and opportunities.</b> <i>John Quinn*</i> , Chief Scientist- Freshwater and Estuaries, NIWA	<b>The value of threatened species to NZ Incorporated.</b> Sir Rob Fenwick, Chairman, Predator Free NZ trust
10:30	<b>Our lakes' health: past, present, future.</b> Susie Wood, Cawthron Institute	<b>Our nature in our place - how DOC is working with others to ensure threatened species success.</b> Lou Sanson. Director General, Department of Conservation
10:45	<b>Havelock North: The role of genomic technologies in investigating the world's largest waterborne campylobacteriosis outbreak.</b> <i>Brent Gilpin*</i> , Science Leader, ESR	<b>Kākāpō genomics: sequencing the genomes of an entire species.</b> Andrew Digby, DOC
11:00	<b>Groundwater biodiversity: a curiosity or major ecosystem service provider?</b> Graham Fenwick, NIWA	<b>Using an acute toxin for eradication: are you crazy?!</b> Phil Bell, Zero Invasive Predators
11:15	<b>Managing and predicting tipping points in New Zealand.</b> Johanna Yletyinen, Canterbury University	<b>What recovery of NI kokako requires.</b> John Innes, Landcare Research
11:30	<b>Reversing ecosystem tipping points on the Hikurangi floodplain.</b> Bev Clarkson, Landcare Research Manaaki Whenua	<b>Winning against wildings.</b> Keith Briden, DOC
11:45	<b>The use of a traditional Māori harvesting method, the tau kōura, for monitoring kōura (freshwater crayfish) populations.</b> Brendan Hicks, University of Waikato.	<b>Panel: The future of pest control tools in the quest for a Predator-Free 2050.</b> <i>Chair: Nicola Toki (DOC). Panellists: Robbie van Dam (Goodnature); Graeme Elliott (DOC); Phil Bell (ZIP), Kelvin Hastie (Crofton Downs Predator Free).</i>
12:00pm	<b>Restoring resilience in the Waiapu catchment freshwater socio-ecological system.</b> Peter Edwards, Scion	

12:15–1:00 LUNCH in Amokura Gallery (4<sup>th</sup> Floor)

### Wednesday 10th May 2017 cont'd.

\*Invited speaker

CONCURRENT SYMPOSIA		
Chair:	ECOSYSTEM RESTORATION Duane Peltzer	THREATENED SPECIES SUMMIT SESSION 1 Uniting against Invaders Lou Sanson
Room:	Icon (2 <sup>nd</sup> Floor)	Amokura Gallery (4 <sup>th</sup> Floor)
1:00	<b>PLENARY: Richard Duncan*</b> , Professor, University of Canberra. New Zealand in context: why we have so many threatened species	1:00 <b>The DOC Threatened Species Strategy, what it means and what we're going to do.</b> <i>Nicola Toki*</i> , DOC Threatened Species Ambassador
		1:20 <b>Australian perspectives on saving threatened plants and animals and Australia's Threatened Species Strategy in practice.</b> Gregory Andrews Australian Threatened Species Commissioner
1:30	<b>PLENARY: Bruce Clarkson*</b> , Professor, Challenge Ambassador, University of Waikato. Urban ecological restoration: the new frontier?	1:35 <b>The conversation about feral cats in NZ.</b> Helen Beattie, Cat Management Strategy Group
2:00	<b>Restoring Taranaki - creating a new normal.</b> Leigh Honnor, Wild for Taranaki	1:55 <b>Biocontrol as a key weapon for the war on weeds.</b> Lynley Hayes, Landcare Research
2:15	<b>Climate change impacts on biodiversity of Aotearoa. Are we leaving our frogs to boil?</b> Cate Macinnis-ng, University of Auckland	2:10 <b>Core collection development for efficient and targeted operation of seedbanks.</b> Kioumars Ghamkhar, Margot Forde Forage Germplasm Centre
2:30	<b>Beyond riparian fencing: Partnering ecosystem scaling, services and society to achieve stream restoration.</b> Katie Collins, University of Canterbury	2:30 <b>The role of botanic gardens in threatened plant conservation.</b> Jack Hobbs, Auckland Botanic Gardens and Jeremy Rolfe, DOC
2:45	<b>The environmental legacy of modern tropical deforestation.</b> <i>Rob Ewers*</i> , Imperial College, London	2:45 <b>Session 1 Summary: The challenging issues of threatened species protection and recovery.</b> <i>Nicola Toki (DOC) and Gregory Andrews (ATSC)</i>

3:00–3:30pm AFTERNOON TEA in Amokura Gallery (4<sup>th</sup> Floor)