

BIOPROTECTION AOTEAROA OUTPUTS 2023

JOURNAL ARTICLES - FUNDED

Allen, W. J., Waller, L. P., Barratt, B. I. P., & Dickie, I. A. (2023). Puke or poop? Comparison of regurgitate and faecal samples to infer alpine grasshopper (*Paprides nitidus* Hutton) diet in experimental plant communities. *Ecology and Evolution*, 13(8), e10444.

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Brandt, A. J., Png, G. K., Jo, I., McGrannachan, C., Allen, K., Peltzer, D. A., D'Antonio, C., Dickie, I. A., French, K., Leishman, M. R., Ostertag, R., Parker, I. M., Stanley, M. C., Suding, K. N., & Bellingham, P. J. (2023). Managing multi-species plant invasions when interactions influence their impact. *Frontiers in Ecology and the Environment*, 21(8), 370–379.

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Camara-Wilpert, S., Mayo-Muñoz, D., Russel, J., Fagerlund, R. D., Madsen, J. S., Fineran, P. C., Sørensen, S. J., & Pinilla-Redondo, R. (2023). Bacteriophages suppress CRISPR–Cas immunity using RNA-based anti-CRISPRs. *Nature*, 623(7987), 601–607.

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Eccersall, S., Vinson, L. S., McDougal, R., & Meisrimler, C.-N. (2023). *Phytophthora pluvialis* culture cultivation, maintenance, and detached needle assay protocol.

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Gibson, J., Buelow, F., Black, A., MacDonald, L. T. A. O. T., & Brower, A. L. (2023). Co-Management of Kauri Dieback in the Waitākere Ranges, Aotearoa New Zealand. *Case Studies in the Environment*, 7(1), 1830829. <https://doi.org/10.1525/cse.2023.1830829>

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Journal Articles - Aligned

Allan, C., Elliot, B., Nock, V., & Meisrimler, C.-N. (2023). Bi-directional Dual-flow-RootChip for Physiological Analysis of Plant Primary Roots Under Asymmetric Perfusion of Stress Treatments. *BIO-PROTOCOL*, 13(15). <https://doi.org/10.21769/BioProtoc.4764>

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Conferences – Funded

Borse, D. M. F., Brandt, A. J., Waipara, N., Stanley, M.C. (2023a, June 9). Wattle we do about all these weeds? Understanding the interactions and impacts of co-occurring woody weeds in restoration plantings. Joint Graduate School Maanaki Whenua Seminar Day, New Zealand.

Borse, D. M. F., Brandt, A. J., Waipara, N., Stanley, M.C. (2023b, July 3). Wattle we do about all these weeds? Determining how interactions of co-occurring woody weeds affect restoration plantings. Ecological Society of Australia Conference, Darwin, Australia.

Borse, D. M. F., Brandt, A. J., Waipara, N., Stanley, M.C. (2023c, November 17). The Interactions of Co-occurring Weeds and Their Impacts on Native Plants. School of Biological Science Research Showcase, Auckland, New Zealand, Auckland, New Zealand.

Borse, D. M. F., Brandt, A. J., Waipara, N., Stanley, M.C. (2023d, November 30). Who grows there? The plants that co-occur with three woody weeds. New Zealand Ecological Society Conference, Auckland, New Zealand, Auckland, New Zealand.

Bradshaw, R.E. (2023, July 24). The Kauri dieback pathogen genome. PacBio Roadshow, Kenepuru, Wellington, NZ, Wellington, New Zealand.

Dagg, T., Bradshaw, R.E., Mesarich, C.H. (2023, September 31). Phytophthora agathidicida alters its repertoire of secreted proteins in the presence of Phytophthora cinnamomi and Phytophthora multivora. Queenstown Research Week, Queenstown, New Zealand.

Dainty, K. R., Inwood, S., Goldson, S. L., & Dearden, P. K. (2023, November 14). Predicting successful biocontrol: What we can learn from *Microctonus hyperodae* genomics. Genetics Otago Tech Week 2023 Annual Symposium & Workshops Conference Contribution - Verbal presentation and other Conference outputs E5.

Dearden, P. (2023, November 14). Adventures in insect plasticity and sociality. Genetics Otago Tech Week 2023 Annual Symposium & Workshops Conference Contribution - Verbal presentation and other Conference outputs E5, Dunedin, New Zealand.

Dearden, P. K., Inwood, S., Skelly, J. (2023, November 14). How might we refresh biocontrol agents? Genetics Otago Tech Week 2023 Annual Symposium & Workshops Conference Contribution - Verbal presentation and other Conference outputs E5, Dunedin, New Zealand.

Dearden P.K. (2023, November 14). Conservation and Biodiversity Genetics. Genetics Otago Tech Week 2023 Annual Symposium & Workshops Conference Contribution - Verbal presentation and other Conference outputs E5, Dunedin, New Zealand.

Fineran, P.C. (2023a, June 24). Anti-CRISPR strategies and their regulation. Prokaryotic Virology Satellite Symposium. 42nd Annual Meeting of the American Society for Virology (ASV), Athens, Georgia, USA., Athens, USA.

Fineran, P.C. (2023b, July 27). Regulation of anti-CRISPR production. CRISPR 2023. Würzburg, Germany., Würzburg, Germany.

Fineran, P.C. (2023c, November 20). Defence and counter-defence strategies in the phage-bacterium arms race. New Zealand Microbiological Society Conference, Auckland, New Zealand, Auckland, New Zealand.

Hawkes, M. K. N., Dearden, P. K., Gemmell, N. J., & Kenny, N. J. (2023, November 14). Evaluating the impacts of climate change at a cellular resolution through comparative single cell sequencing of kuku (green-lipped mussels). Genetics Otago Tech Week 2023 Annual Symposium & Workshops Conference Contribution - Published proceedings: Abstract E2, Dunedin, New Zealand.

Inwood, S. N., Harrop, T. W. R., Goldson, S. L., & Dearden, P. K. (2023, November 14). Transmission of a novel virus in a declining insect biocontrol system. Genetics Otago Tech Week 2023 Annual Symposium & Workshops Conference Contribution - Verbal presentation and other Conference outputs E5.

Julie Deslippe, Stephanie Tomscha, Rubianca Benevidez, Pearl Ruston, Colan Balkwill, Bethanna Jackson. (2023a, July 4). Identifying restorable refugia for a Nationally-Critical tree species in the Greater Wellington region. Plant Science Central Conference, Massey University, Wellington, New Zealand.

Julie Deslippe, Stephanie Tomscha, Rubianca Benevidez, Pearl Ruston, Colan Balkwill, Bethanna Jackson. (2023b, October 12). Identifying restorable refugia for a Nationally-Critical tree species in the Greater Wellington region. Beyond Myrtle Rust Advisory group and Final AGM, Wellington, New Zealand.

Meisrimler, C.-N. (n.d.). Thirsty for Answers: Dissecting Signal Warfare Between Plants and Pathogens in a Changing Climate. December 2023. Gottingen University, Germany, Gottingen, Germany.

Morman K, Buckley HL, Higgins CM, Tosi M, Dunfield K, Day NJ. (2023, September 31). Impacts of plant-soil feedbacks and fire on arbuscular mycorrhizal fungi associated with invasive plants. Queenstown Research Week, Queenstown, New Zealand, Queenstown, New Zealand.

Tarallo, M., Guo, M., Bradley, E., Shiller, J., Mesarich, C.H., Bradshaw, R.E. (2023, August 19). Insights into the Phytophthora agathidicida genome with a chromosome-level sequence assembly. Oomycete Molecular Genetics Meeting, Lyon, France, Lyon, France.

Conferences – Aligned

Austin, A. & Dearden, P.K. (2023, November 14). *Mechanisms of segmentation in the honeybee*. Genetics Otago Tech Week 2023 Annual Symposium & Workshops Conference Contribution - Verbal presentation and other Conference outputs E5, Dunedin, New Zealand.

Byers, A.K. (2023a, September 31). *Exploring the diversity of secondary metabolite biosynthetic gene clusters in kauri (Agathis australis) forest soils*. Queenstown Research Week, Queenstown, New Zealand.

Byers, A.K. (2023b, November 20). *Exploring the diversity of biosynthetic gene clusters in kauri forest soils afflicted with dieback disease*. New Zealand Microbiological Society Conference, Auckland, New Zealand.

Colan Balkwill, David Chagne, Julie R Deslippe. (2023, September 31). *Community focussed restoration of a taonga, maire tawake*. Queenstown Research Week, He taonga tuku iho – Bioprotection Aotearoa Satellite, Queenstown, New Zealand.

Colan Balkwill, Peter Ritchie, David Chagne and Julie R Deslippe. (2023a, July 4). *Restoration genetics of a critically threatened New Zealand Myrtaceae, Syzygium maire*. Plant Sciences Central 2023, Palmerston North, New Zealand.

Colan Balkwill, Peter Ritchie, David Chagne and Julie R Deslippe. (2023b, September 26). *Landscape-scale restoration genetics of a critically threatened New Zealand Myrtaceae, Syzygium maire*. Society of Ecological Restoration World Conference, Darwin, Australia.

Condron, L.M. (2023, December 27). *The role of soil biology and organic phosphorus in improving phosphorus use efficiency in agroecosystems*. Organic Phosphorus Workshop #4, Pucón, Chile.

Cridge, A., Hyink, O., Armstrong, K., Harrop, T., Dearden, P. (2023, November 14). *Bees as biosecurity biomonitoring: Exotic plant detection and identification to monitor plant invasions*. Genetics Otago Tech Week 2023 Annual Symposium & Workshops Conference Contribution - Published proceedings: Abstract E2, Dunedin, New Zealand.

Cullen, G. & Dearden, P.K. (2023, November 14). *Predetermining the Germline the honeybees*. Genetics Otago Tech Week 2023 Annual Symposium & Workshops Conference Contribution - Verbal presentation and other Conference outputs E5, Dunedin, New Zealand.

Delargy, E., & Dearden, P. K. (2023, November 14). *Time to grow up: Validation of the timer-gene segmentation hypothesis in the honeybee*. Genetics Otago Tech Week 2023 Annual Symposium & Workshops Conference Contribution - Verbal presentation and other Conference outputs E5, Dunedin, New Zealand.

Guhlin, J. G., & Dearden, P. K. (2023, November 14). *Species-wide genomics of kakapo provides ransformational tools to accelerate recovery*. Genetics Otago Tech Week 2023 Annual Symposium & Workshops Conference Contribution - Verbal presentation and other Conference outputs E5, Dunedin, New Zealand.

Guhlin, J., Keddell, P., & Dearden, P. (2023, November 14). *Reannotating 282 genomes: The hymenopteran unified gene set*. Genetics Otago Tech Week 2023 Annual Symposium & Workshops Conference Contribution - Published proceedings: Abstract E2, Dunedin, New Zealand.

Meisrimler, C.-N. (2023a, February). *The NAC13 Transcription Factor cluster is involved in abiotic and biotic stress regulations*. VIB Ghent, Belgium, Ghent, Belgium.

Meisrimler, C.-N. (2023b, September 5). *The Role of Phytophthora pluvialis RXLR effectors during early infection of Pinus radiata*. British Society of Plant Pathology Meeting, Birmingham, UK, Birmingham, UK.

Stanley MC. (2023a). *Drivers of ecological change in cities: Backyards matter*. Plenary, Central Arizona-Phoenix LTER Symposium, Arizona State University, Phoenix, USA.

Stanley MC. (2023b). *Urban greening: How do birds and people influence each other?* Deptl Seminar, University of Washington, Seattle, USA.

Stanley MC. (2023c). *Why backyards matter?* Northshore Branch, Forest & Bird, Auckland, New Zealand.

Stanley MC. (2023d). *Why backyards matter?* Waiheke Festival, Auckland, New Zealand.

Stanley MC. (2023e, May 19). *Backyards matter for birds and other biodiversity*. Eastern Songbirds Festival, Auckland, New Zealand.

Stanley MC. (2023f, November 30). *Drivers of ecological change in cities*. Deptl Seminar, Rutgers University, New Jersey, USA.

Tarallo, M., Bradshaw, R.E., McDougal, R.L., Mesarich, C.H. (2023, August 8). *Cross-kingdom effectors: Hope for broad-spectrum resistance to conifer needle pathogens?* New Zealand Plant Protection Society Conference, Rotorua, New Zealand.

Tylianakis, J.M. (2023, November 14). *Consumer spillover and the spatial propagation of habitat effects*. Symposium: "Spillover effects of natural enemies on heterogeneous landscapes" Friday, June 9th, Estación Experimental de Zonas Áridas, CSIC (Almería, Spain), Almería, Spain.

Yeoh, S. M., Gerth, M., Woods, L., Davenport, A., Davenport, S., Marsh, C., Hohaia, H., & Deslippe, J. (30-Nov-23). *Kauri survival and growth in response to companion planting treatments in Waipoua Forest, Northland*. NZ Ecological Society Virtual Conference, Wellington local hub student, Wellington, New Zealand.