

2018 Refereed Science Publications

Peer reviewed journal articles and conference proceedings papers from Scion - January to December 2018.

Addison, S. L., Walbert, K., Smaill, S. J., & Menkis, A. (2018). Edaphic properties related with changes in diversity and composition of fungal communities associated with *Pinus radiata*. *Pedobiologia*, 66, 43-51. doi:10.1016/j.pedobi.2017.12.002

Ammitzboll, H., Vaillancourt, R. E., Potts, B. M., Singarasa, S., Mani, R., & Freeman, J. S. (2018). Quantitative trait loci (Qtl) for intumescence severity in *Eucalyptus globulus* and validation of QTL detection based on phenotyping using open-pollinated families of a mapping population. *Plant Disease*, 102(8), 1566-1573. doi:10.1094/PDIS-01-18-0003-RE

Auty, D., Moore, J., Achim, A., Lyon, A., Mochan, S., & Gardiner, B. (2018). Effects of early respacing on the density and microfibril angle of Sitka spruce wood. *Forestry*, 91(3), 307-319. doi:10.1093/forestry/cpx004

Backmann, P., Grimm, V., Jetschke, G., Lin, Y., Vos, M., Baldwin, I. T., & van Dam, N. M. (2018). Delayed chemical defense: Timely expulsion of herbivores can reduce competition with neighboring plants. *American Naturalist*. doi:10.5061/dryad.gh2m22t

Backmann, P., Grimm, V., Jetschke, G., Lin, Y., Vos, M., Baldwin, I. T., & van Dam, N. M. (2019). Delayed chemical defense: Timely expulsion of herbivores can reduce competition with neighboring plants. *American Naturalist*, 193(1), 125-139. doi:10.1086/700577

Baroutian, S., Syed, A. M., Munir, M. T., Gapes, D. J., & Young, B. R. (2018). Effect of hydrodynamic mixing conditions on wet oxidation reactions in a stirred vessel reactor. *Bioresource Technology*, 262, 333-337. doi:10.1016/j.biortech.2018.05.029

Beers, P. J., Turner, J. A., Rijswijk, K., Williams, T., Barnard, T., & Beechener, S. (2018). Learning or evaluating? Towards a negotiation-of-meaning approach to learning in transition governance. *Technological Forecasting and Social Change*. doi:10.1016/j.techfore.2018.09.016

Beets, P. N., & Garrett, L. G. (2018). Carbon fraction of *Pinus radiata* biomass components within New Zealand. *New Zealand Journal of Forestry Science*, 48(1). doi:10.1186/s40490-018-0119-5

Beets, P. N., Kimberley, M. O., Oliver, G. R., & Pearce, S. H. (2018). Predicting wood density of growth increments of Douglas-fir stands in New Zealand. *New Zealand Journal of Forestry Science*, 48(1). doi:10.1186/s40490-018-0112-z

Beets, P. N., Kimberley, M. O., Oliver, G. R., Pearce, S. H., Graham, J. D., Henley, D., & Meason, D. F. (2018). Plantation species-specific adjustment functions for the Forest Carbon Predictor in New Zealand. *New Zealand Journal of Forestry Science*, 48(1). doi:10.1186/s40490-018-0125-7

Bennett, P., & Harnett, M. (2018). Bioindustry Down under. *Industrial Biotechnology*, 14(4), 174-177. doi:10.1089/ind.2018.29139.pbe

Bertelsmeier, C., Ollier, S., Liebhold, A. M., Brockerhoff, E. G., Ward, D., & Keller, L. (2018). Recurrent bridgehead effects accelerate global alien ant spread. *Proceedings of the National Academy of Sciences of the United States of America*, 115(21), 5486-5491. doi:10.1073/pnas.1801990115

Blunt, W., Dartiailh, C., Sparling, R., Gapes, D., Levin, D. B., & Cicek, N. (2018). Carbon flux to growth or polyhydroxyalkanoate synthesis under microaerophilic conditions is affected by fatty acid chain-length in *Pseudomonas putida* LS46. *Applied Microbiology and Biotechnology*, 1-13. doi:10.1007/s00253-018-9055-9

Blunt, W., Sparling, R., Gapes, D. J., Levin, D. B., & Cicek, N. (2018). The role of dissolved oxygen content as a modulator of microbial polyhydroxyalkanoate synthesis. *World Journal of Microbiology and Biotechnology*, 34(8). doi:10.1007/s11274-018-2488-6

Boitt, G., Simpson, Z. P., Tian, J., Black, A., Wakelin, S. A., & Condrón, L. M. (2018). Plant biomass management impacts on short-term soil phosphorus dynamics in a temperate grassland. *Biology and Fertility of Soils*, 1-13. doi:10.1007/s00374-018-1269-6

Bridson, J. H., Al-Hakkak, F., Steward, D., & Al-Hakkak, J. (2019). Preparation and morphological, rheological, and structural characterisation of proanthocyanidin coated starch granules. *Industrial Crops and Products*, 130, 285-291. doi:10.1016/j.indcrop.2018.12.069

- Bulman, S. R., McDougal, R. L., Hill, K., & Lear, G. (2018). Opportunities and limitations for DNA metabarcoding in Australasian plant-pathogen biosecurity. *Australasian Plant Pathology*, 47(5), 467-474. doi:10.1007/s13313-018-0579-3
- Burdon, R. D., & Moore, J. R. (2018). Adverse genetic correlations and impacts of silviculture involving wood properties: Analysis of issues for radiata pine. *Forests*, 9(6). doi:10.3390/f9060308
- Cappa, E. P., El-Kassaby, Y. A., Muñoz, F., Garcia, M. N., Villalba, P. V., Klápště, J., & Marcucci Poltri, S. N. (2018). Genomic-based multiple-trait evaluation in *Eucalyptus grandis* using dominant DArT markers. *Plant Science*, 271, 27-33. doi:10.1016/j.plantsci.2018.03.014
- Chabbert, B., Terryn, C., Herbaut, M., Vaidya, A., Habrant, A., Paës, G., & Donaldson, L. (2018). Fluorescence techniques can reveal cell wall organization and predict saccharification in pretreated wood biomass. *Industrial Crops and Products*, 123, 84-92. doi:10.1016/j.indcrop.2018.06.058
- Challis, K. J. (2018). Tight-binding derivation of a discrete-continuous description of mechanochemical coupling in a molecular motor. *Physical Review E*, 97(6). doi:10.1103/PhysRevE.97.062158
- Chase, K. D., Stringer, L. D., Butler, R. C., Liebhold, A. M., Miller, D. R., Shearer, P. W., & Brockerhoff, E. G. (2018). Multiple-Lure Surveillance Trapping for Ips Bark Beetles, Monochamus Longhorn Beetles, and *Halyomorpha halys* (Hemiptera: Pentatomidae). *Journal of Economic Entomology*, 111(5), 2255-2263. doi:10.1093/jeet/toy190
- Cheng, D., Feng, Y., Liu, Y., Li, J., Xue, J., & Li, Z. (2018). Quantitative models for predicting adsorption of oxytetracycline, ciprofloxacin and sulfamerazine to swine manures with contrasting properties. *Science of the Total Environment*, 634, 1148-1156. doi:10.1016/j.scitotenv.2018.04.114
- Cheng, D., Feng, Y., Liu, Y., Xue, J., & Li, Z. (2019). Dynamics of oxytetracycline, sulfamerazine, and ciprofloxacin and related antibiotic resistance genes during swine manure composting. *Journal of Environmental Management*, 230, 102-109. doi:10.1016/j.jenvman.2018.09.074
- Dai, W., Zhao, K., Fu, W., Jiang, P., Li, Y., Zhang, C., . . . Wu, J. (2018). Spatial variation of organic carbon density in topsoils of a typical subtropical forest, southeastern China. *Catena*, 167, 181-189. doi:10.1016/j.catena.2018.04.040
- Dash, J. P., Pearse, G. D., & Watt, M. S. (2018). UAV multispectral imagery can complement satellite data for monitoring forest health. *Remote Sensing*, 10(8). doi:10.3390/rs10081216
- Dash, J. P., Watt, M. S., Pearse, G. D., Heaphy, M., & Dungey, H. S. (2017). Assessing very high resolution UAV imagery for monitoring forest health during a simulated disease outbreak. *ISPRS Journal of Photogrammetry and Remote Sensing*, 131, 1-14. doi:https://doi.org/10.1016/j.isprsjprs.2017.07.007
- Dickson, A. R., & Sandquist, D. (2018). Mode of wood fibre breakage during thermoplastic melt processing. *Composites Part A: Applied Science and Manufacturing*, 112, 496-503. doi:10.1016/j.compositesa.2018.07.004
- Dignam, B. E. A., O'Callaghan, M., Condrón, L. M., Kowalchuk, G. A., Van Nostrand, J. D., Zhou, J., & Wakelin, S. A. (2018). Effect of land use and soil organic matter quality on the structure and function of microbial communities in pastoral soils: Implications for disease suppression. *PLoS One*, 13(5). doi:10.1371/journal.pone.0196581
- Donaldson, L., & Williams, N. (2018). Imaging and spectroscopy of natural fluorophores in pine needles. *Plants*, 7(1). doi:10.3390/plants7010010
- Donaldson, L. A., Cairns, M., & Hill, S. J. (2018). Comparison of Micropore Distribution in Cell Walls of Softwood and Hardwood Xylem. *Plant Physiology*, 178(3), 1142-1153. doi:10.1104/pp.18.00883
- Dungey, H. S., Dash, J. P., Pont, D., Clinton, P. W., Watt, M. S., & Telfer, E. J. (2018). Phenotyping Whole Forests Will Help to Track Genetic Performance. *Trends in Plant Science*. doi:10.1016/j.tplants.2018.08.005
- El-Dien, O. G., Ratcliffe, B., Klápště, J., Porth, I., Chen, C., & El-Kassaby, Y. A. (2018). Multienvironment genomic variance decomposition analysis of open-pollinated Interior spruce (*Picea glauca* x *engelmannii*). *Molecular Breeding*, 38(3). doi:10.1007/s11032-018-0784-3
- Fahmy, M., & Lee, I. G. (2018) An exergy analysis of a laboratory scale fast pyrolysis process design. In: *Vol. Part F7. Green Energy and Technology* (pp. 1259-1273).
- Fan, X., Yin, C., Chen, H., Ye, M., Zhao, Y., Li, T., . . . Liang, Y. (2019). The efficacy of 3,4-dimethylpyrazole phosphate on N₂O emissions is linked to niche differentiation of ammonia oxidizing archaea and bacteria across four arable soils. *Soil Biology and Biochemistry*, 130, 82-93. doi:10.1016/j.soilbio.2018.11.027

- Feghali, E., Torr, K. M., van de Pas, D. J., Ortiz, P., Vanbroekhoven, K., Eevers, W., & Vendamme, R. (2018). Thermosetting Polymers from Lignin Model Compounds and Depolymerized Lignins. *Topics in Current Chemistry*, 376(4). doi:10.1007/s41061-018-0211-6
- Fei, S., Jo, I., Guo, Q., Wardle, D. A., Fang, J., Chen, A., . . . Brockerhoff, E. G. (2018). Impacts of climate on the biodiversity-productivity relationship in natural forests. *Nature Communications*, 9(1). doi:10.1038/s41467-018-07880-w
- Feng, Y., Zhang, W. J., Liu, Y. W., Xue, J. M., Zhang, S. Q., & Li, Z. J. (2018). A simple, sensitive, and reliable method for the simultaneous determination of multiple antibiotics in vegetables through SPE-HPLC-MS/MS. *Molecules*, 23(8). doi:10.3390/molecules23081953
- Flood, S., Cradock-Henry, N. A., Blackett, P., & Edwards, P. (2018). Adaptive and interactive climate futures: Systematic review of 'serious games' for engagement and decision-making. *Environmental Research Letters*, 13(6). doi:10.1088/1748-9326/aac1c6
- Franich, R. A., Meder, R., Falge, M., Fuchs, J., & Behr, V. C. (2019). Uncovering supercritical CO₂ wood dewatering via interleaved 1H-imaging and 13C-spectroscopy with real-time reconstruction. *Journal of Supercritical Fluids*, 144, 56-62. doi:10.1016/j.supflu.2018.10.006
- Freeman, J. S., Hamilton, M. G., Lee, D. J., Pegg, G. S., Brawner, J. T., Tilyard, P. A., & Potts, B. M. (2018). Comparison of host susceptibilities to native and exotic pathogens provides evidence for pathogen-imposed selection in forest trees. *New Phytologist*. doi:10.1111/nph.15557
- Fritsche, S., Klocko, A. L., Boron, A., Brunner, A. M., & Thorlby, G. (2018) Strategies for engineering reproductive sterility in plantation forests. In: Vol. 871. *Advances in Intelligent Systems and Computing*.
- Fritsche, S., Poovaiah, C., MacRae, E., & Thorlby, G. (2018). A new zealand perspective on the application and regulation of gene editing. *Frontiers in Plant Science*, 9. doi:10.3389/fpls.2018.01323
- Gaugler, M., Luedtke, J., Grigsby, W. J., & Krause, A. (2019). A new methodology for rapidly assessing interfacial bonding within fibre-reinforced thermoplastic composites. *International Journal of Adhesion and Adhesives*, 89, 66-71. doi:10.1016/j.ijadhadh.2018.11.010
- Graham, N. J., Suontama, M., Pleasants, T., Li, Y., Bader, M. K. F., Klápště, J., . . . Williams, N. M. (2018). Assessing the genetic variation of tolerance to red needle cast in a *Pinus radiata* breeding population. *Tree Genetics and Genomes*, 14(4). doi:10.1007/s11295-018-1266-9
- Grant, A., Ison, R., Faggian, R., & Sposito, V. (2018). Enabling Political Legitimacy and Conceptual Integration for Climate Change Adaptation Research within an Agricultural Bureaucracy: a Systemic Inquiry. *Systemic Practice and Action Research*. doi:10.1007/s11213-018-9474-7
- Grant-Smith, D., Johnson, L., & Edwards, P. (2017). Putting children in their place on public transit: Managing mobilities in the child-friendly city. In *Dialogues in Urban and Regional Planning 6: The Right to the City* (pp. 201-216).
- Grigsby, W., Tohmura, S. I., & Miyamoto, K. (2018). Volatile organic compounds (VOCs) from lauan (*Shorea ssp.*) plyboard prepared with kraft lignin, soy flour, gluten meal and tannin: Emissions during hot pressing and from panels as a function of time. *Holzforschung*. doi:10.1515/hf-2018-0075
- Grigsby, W. J. (2018). Photooxidative stability provided by condensed tannin additives in acrylic-based surface coatings on exterior exposure. *Journal of Coatings Technology Research*, 1-10. doi:10.1007/s11998-018-0086-z
- Grimbacher, P. S., Edwards, W., Liddell, M. J., Nelson, P. N., Nichols, C., Wardhaugh, C. W., & Stork, N. E. (2018). Temporal variation in abundance of leaf litter beetles and ants in an Australian lowland tropical rainforest is driven by climate and litter fall. *Biodiversity and Conservation*, 27(10), 2625-2640. doi:10.1007/s10531-018-1558-2
- Herewini, E. M., Scott, P. M., Williams, N. M., & Bradshaw, R. E. (2018). In vitro assays of *Phytophthora agathidicida* on kauri leaves suggest variability in pathogen virulence and host response. *New Zealand Plant Protection*, 71, 285-288. doi:10.30843/nzpp.2018.71.127
- Holmes, T. P., Allen, W., G. Haight, R., Keskitalo, E. C. H., Marzano, M., Pettersson, M., . . . Langer, E. R. L. (2017). Fundamental Economic Irreversibilities Influence Policies for Enhancing International Forest Phytosanitary Security. *Current Forestry Reports*, 3(3), 244-254. doi:10.1007/s40725-017-0065-0
- Hunter, S., McDougal, R., Clearwater, M. J., Williams, N., & Scott, P. (2018). Development of a high throughput optical density assay to determine fungicide sensitivity of oomycetes. *Journal of Microbiological Methods*, 154, 33-39. doi:10.1016/j.mimet.2018.10.006

- Hunter, S., Williams, N., McDougal, R., Scott, P., & Garbelotto, M. (2018). Evidence for rapid adaptive evolution of tolerance to chemical treatments in *Phytophthora* species and its practical implications. *PLoS One*, *13*(12). doi:10.1371/journal.pone.0208961
- Ireland, K. B., Bulman, L., Hoskins, A. J., Pinkard, E. A., Mohammed, C., & Kriticos, D. J. (2018). Estimating the potential geographical range of *Sirex noctilio*: comparison with an existing model and relationship with field severity. *Biological Invasions*, 1-24. doi:10.1007/s10530-018-1721-4
- Jakes, J. E., Frihart, C. R., Hunt, C. G., Yelle, D. J., Plaza, N. Z., Lorenz, L., . . . Xiao, X. (2018). X-ray methods to observe and quantify adhesive penetration into wood. *Journal of Materials Science*. doi:10.1007/s10853-018-2783-5
- James, K. R., Moore, J. R., Slater, D., & Dahle, G. A. (2017). Tree biomechanics. *CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources*, *12*, 2-11. doi:10.1079/PAVSNNR201712038
- Kimberley, M. O., Beets, P. N., & Paul, T. S. H. (2019). Comparison of measured and modelled change in coarse woody debris carbon stocks in New Zealand's natural forest. *Forest Ecology and Management*, *434*, 18-28. doi:10.1016/j.foreco.2018.11.048
- Lange, C., Goeke, D. F., Hickman, D. T., Podolyan, A., & Houlston, G. J. (2018). Chloroplast diversity of giant buttercup (*Ranunculus acris* L., Ranunculaceae) in New Zealand and in its native range. *New Zealand Journal of Botany*. doi:10.1080/0028825X.2018.1509877
- Lee, H., Glasper, M. J., Li, X., Nychka, J. A., Batcheller, J., Chung, H. J., & Chen, Y. (2018). Preparation of fabric strain sensor based on graphene for human motion monitoring. *Journal of Materials Science*, 1-8. doi:10.1007/s10853-018-2194-7
- Leveneur, J., Rajan, A., McDonald-Wharry, J., Le Guen, M. J., Pickering, K., & Kennedy, J. (2018). Structural and chemical changes of cellulose fibres under low energy ion implantations. *Surface and Coatings Technology*. doi:10.1016/j.surfcoat.2018.04.006
- Li, Y., & Dungey, H. S. (2018). Expected benefit of genomic selection over forward selection in conifer breeding and deployment. *PLoS One*, *13*(12). doi:10.1371/journal.pone.0208232
- Li, Y., Dungey, H. S., Carson, M., & Carson, S. (2018). Genotype by environment interaction for growth and *Dothistroma* resistance and clonal connectivity between environments in radiata pine in New Zealand and Australia. *PLoS One*, *13*(10), e0205402. doi:10.1371/journal.pone.0205402
- Liebold, A. M., Brockerhoff, E. G., & Nuñez, M. A. (2017). Biological invasions in forest ecosystems: a global problem requiring international and multidisciplinary integration. *Biological Invasions*, *19*(11), 3073-3077. doi:10.1007/s10530-017-1547-5
- Liebold, A. M., Yamanaka, T., Roques, A., Augustin, S., Chown, S. L., Brockerhoff, E. G., & Pyšek, P. (2018). Plant diversity drives global patterns of insect invasions. *Scientific Reports*, *8*(1). doi:10.1038/s41598-018-30605-4
- Linsler, S., Wolfslehner, B., Bridge, S. R. J., Gritten, D., Johnson, S., Payn, T., . . . Robertson, G. (2018). 25 years of criteria and indicators for sustainable forest management: How intergovernmental C & I processes have made a difference. *Forests*, *9*(9). doi:10.3390/f9090578
- Little, K. M., Rolando, C. A., & Morris, A. R. (2018). Impacts of under-canopy vegetation on stand growth in two pine saw-timber stands, South Africa. *New Zealand Journal of Forestry Science*, *48*(1). doi:10.1186/s40490-017-0107-1
- López-Alamilla, N. J., Jack, M. W., & Challis, K. J. (2018). Reconstructing free-energy landscapes for nonequilibrium periodic potentials. *Physical Review E*, *97*(3). doi:10.1103/PhysRevE.97.032419
- López-Alamilla, N. J., Jack, M. W., & Challis, K. J. (2019). Analysing single-molecule trajectories to reconstruct free-energy landscapes of cyclic motor proteins. *Journal of Theoretical Biology*, *462*, 321-328. doi:10.1016/j.jtbi.2018.11.015
- Luedtke, J., Gaugler, M., Grigsby, W. J., & Krause, A. (2019). Understanding the development of interfacial bonding within PLA/wood-based thermoplastic sandwich composites. *Industrial Crops and Products*, *127*, 129-134. doi:10.1016/j.indcrop.2018.10.069
- Mansfield, S. (2018). Intraguild predation and prey preferences influence biological control of *Paropsis charybdis* by the southern ladybird, *Cleobora mellyi*. *Biological Control*. doi:10.1016/j.biocontrol.2018.10.013

- Markic, A., Niemand, C., Bridson, J. H., Mazouni-Gaertner, N., Gaertner, J. C., Eriksen, M., & Bowen, M. (2018). Double trouble in the South Pacific subtropical gyre: Increased plastic ingestion by fish in the oceanic accumulation zone. *Marine Pollution Bulletin*, 136, 547-564. doi:10.1016/j.marpolbul.2018.09.031
- McKown, A. D., Klápště, J., Guy, R. D., Soolanayakanahally, R. Y., La Mantia, J., Porth, I., . . . Cronk, Q. C. B. (2018). Erratum: Author Correction: Sexual homomorphism in dioecious trees: extensive tests fail to detect sexual dimorphism in *Populus* (Scientific reports (2017) 7 1 (1831)). *Scientific Reports*, 8(1), 17410. doi:10.1038/s41598-018-35443-y
- Meurisse, N., Rassati, D., Hurley, B. P., Brockerhoff, E. G., & Haack, R. A. (2018). Common pathways by which non-native forest insects move internationally and domestically. *Journal of Pest Science*, 1-15. doi:10.1007/s10340-018-0990-0
- Mittelstädt, G., Jiao, W., Livingstone, E. K., Moggre, G. J., Nazmi, A. R., & Parker, E. J. (2018). A dimeric catalytic core relates the short and long forms of ATP-phosphoribosyltransferase. *Biochemical Journal*, 475(1), 247-260. doi:10.1042/BCJ20170762
- Monge, J. J., Daigneault, A. J., Dowling, L. J., Harrison, D. R., Awatere, S., & Ausseil, A. G. (2018). Implications of future climatic uncertainty on payments for forest ecosystem services: The case of the East Coast of New Zealand. *Ecosystem Services*. doi:10.1016/j.ecoser.2018.04.010
- Monge, J. J., & Wakelin, S. J. (2019). Geographically-explicit, dynamic partial equilibrium model of regional primary value chains – Mathematical formulation and application to forestry in the Northland region of New Zealand. *Computers and Electronics in Agriculture*, 156, 145-158. doi:10.1016/j.compag.2018.11.003
- Murphy, G. E., & Moore, J. R. (2018). SEGMOD—a techno-economic model for evaluating the impact of segregation based on internal wood properties. *Annals of Forest Science*, 75(3). doi:10.1007/s13595-018-0755-1
- Muthu, M., Ophir, Y., Macdonald, L. J., Vaidya, A., & Lloyd-Jones, G. (2018). Versatile catechol dioxygenases in *Sphingobium scionense* WP01T. *Antonie van Leeuwenhoek, International Journal of General and Molecular Microbiology*, 1-9. doi:10.1007/s10482-018-1120-y
- Parakh, S. K., Praveen, P., Loh, K. C., & Tong, Y. W. (2019). Wastewater treatment and microbial community dynamics in a sequencing batch reactor operating under photosynthetic aeration. *Chemosphere*, 893-903. doi:10.1016/j.chemosphere.2018.10.085
- Paul, T. S. H., Kimberley, M. O., & Beets, P. N. (2018). Thinking outside the square: Evidence that plot shape and layout in forest inventories can bias estimates of stand metrics. *Methods in Ecology and Evolution*. doi:10.1111/2041-210X.13113
- Pawson, S. M., Bader, M. K. F., Brockerhoff, E. G., Heffernan, W. J. B., Kerr, J. L., & O'Connor, B. (2018). Quantifying the thermal tolerance of wood borers and bark beetles for the development of Joule heating as a novel phytosanitary treatment of pine logs. *Journal of Pest Science*. doi:10.1007/s10340-018-1015-8
- Pearse, G. D., Dash, J. P., Persson, H. J., & Watt, M. S. (2018). Comparison of high-density LiDAR and satellite photogrammetry for forest inventory. *ISPRS Journal of Photogrammetry and Remote Sensing*, 142, 257-267. doi:10.1016/j.isprsjprs.2018.06.006
- Pearson, H., Dawson, B., Kimberley, M., & Davy, B. (2019). Predictive modelling of supercritical CO₂ dewatering of capillary tubes. *Journal of Supercritical Fluids*, 143, 198-204. doi:10.1016/j.supflu.2018.08.016
- Peixoto, L., Allen, G. R., Ridenbaugh, R. D., Quarrell, S. R., Withers, T. M., & Sharanowski, B. J. (2018). When taxonomy and biological control researchers unite: Species delimitation of *Eadya* parasitoids (Braconidae) and consequences for classical biological control of invasive paropsine pests of Eucalyptus. *PLoS One*, 13(8). doi:10.1371/journal.pone.0201276
- Plackett, D. V., Dunningham, E. A., & Singh, A. P. (2017). Weathering of chemically modified wood. In *Chemical Modification of Lignocellulosic Materials* (pp. 277-294).
- Praveen, P., Guo, Y., Kang, H., Lefebvre, C., & Loh, K. C. (2018). Enhancing microalgae cultivation in anaerobic digestate through nitrification. *Chemical Engineering Journal*, 354, 905-912. doi:10.1016/j.cej.2018.08.099
- Price-Whelan, A. M., Sipőcz, B. M., Günther, H. M., Lim, P. L., Crawford, S. M., Conseil, S., . . . Primary Paper Contributors, A. C. C. (2018). The Astropy Project: Building an Open-science Project and Status of the v2.0 Core Package. *Astronomical Journal*, 156(3). doi:10.3847/1538-3881/aabc4f

- Redlich, S., Clemens, J., Bader, M. K. F., Pendrigh, D., Perret-Gentil, A., Godsoe, W., . . . Brockerhoff, E. G. (2018). Identifying new associations between invasive aphids and Pinaceae trees using plant sentinels in botanic gardens. *Biological Invasions*. doi:10.1007/s10530-018-1817-x
- Richardson, B., Strand, T., Thistle, H. W., Hiscox, A., Kimberley, M. O., & Schou, W. C. (2017). Influence of a young *Pinus radiata* canopy on aerial spray drift. *Transactions of the ASABE*, 60(6), 1851-1861.
- Rodríguez-Gamir, J., Xue, J., Clearwater, M. J., Meason, D. F., Clinton, P. W., & Domec, J. C. (2018). Aquaporin regulation in roots controls plant hydraulic conductance, stomatal conductance, and leaf water potential in *Pinus radiata* under water stress. *Plant Cell and Environment*. doi:10.1111/pce.13460
- Romo, C. M., Bader, M. K. F., & Pawson, S. M. (2018). Measuring wood-boring depth of *Arhopalus ferus* and *Prionoplus reticularis* in *Pinus radiata* logs informs the development of phytosanitary treatments. *Entomologia Experimentalis et Applicata*. doi:10.1111/eea.12710
- Salekin, S., Burgess, J. H., Morgenroth, J., Mason, E. G., & Meason, D. F. (2018). A comparative study of three non-geostatistical methods for optimising digital elevation model interpolation. *ISPRS International Journal of Geo-Information*, 7(8). doi:10.3390/ijgi7080300
- Schimleck, L., Antony, F., Dahlen, J., & Moore, J. (2018). Wood and fiber quality of plantation-grown conifers: A summary of research with an emphasis on loblolly and Radiata pine. *Forests*, 9(6). doi:10.3390/f9060298
- Seebens, H., Blackburn, T. M., Dyer, E. E., Genovesi, P., Hulme, P. E., Jeschke, J. M., . . . Essl, F. (2018). Global rise in emerging alien species results from increased accessibility of new source pools. *Proceedings of the National Academy of Sciences of the United States of America*, 115(10), E2264-E2273. doi:10.1073/pnas.1719429115
- Sharma-Wallace, L., Velarde, S. J., & Wreford, A. (2018). Adaptive governance good practice: Show me the evidence! *Journal of Environmental Management*, 222, 174-184. doi:10.1016/j.jenvman.2018.05.067
- Singamneni, S., Smith, D., LeGuen, M. J., & Truong, D. (2018). Extrusion 3D printing of polybutyrate-adipate-terephthalate-polymer composites in the pellet form. *Polymers*, 10(8). doi:10.3390/polym10080922
- Singh, A. P., Wong, A. H. H., Kim, Y. S., & Wi, S. G. (2018). Resistance of the S1 layer in kempas heartwood fibers to soft rot decay. *IAWA Journal*, 39(1), 37-42. doi:10.1163/22941932-20170191
- Singh, T., & Page, D. (2018). Case studies on the history and use of timber bridges in New Zealand. *Wood Material Science & Engineering*, 13(3), 159-166. doi:10.1080/17480272.2017.1411393
- Song, J., Carver, B. F., Powers, C., Yan, L., Klápště, J., El-Kassaby, Y. A., & Chen, C. (2017). Practical application of genomic selection in a doubled-haploid winter wheat breeding program. *Molecular Breeding*, 37(10). doi:10.1007/s11032-017-0715-8
- Stejskal, J., Lstibůrek, M., Klápště, J., Čepl, J., & El-Kassaby, Y. A. (2018). Effect of genomic prediction on response to selection in forest tree breeding. *Tree Genetics and Genomes*, 14(5). doi:10.1007/s11295-018-1283-8
- Stojanova, B., Šurinová, M., Klápště, J., Kolářiková, V., Hadincová, V., & Münzbergová, Z. (2018). Adaptive differentiation of *Festuca rubra* along a climate gradient revealed by molecular markers and quantitative traits. *PLoS One*, 13(4). doi:10.1371/journal.pone.0194670
- Suontama, M., Klápště, J., Telfer, E., Graham, N., Stovold, T., Low, C., . . . Dungey, H. (2018). Correction to: Efficiency of genomic prediction across two *Eucalyptus nitens* seed orchards with different selection histories (Heredity, (2018), 10.1038/s41437-018-0119-5). *Heredity*. doi:10.1038/s41437-018-0159-x
- Suontama, M., Klápště, J., Telfer, E., Graham, N., Stovold, T., Low, C., . . . Dungey, H. (2018). Efficiency of genomic prediction across two *Eucalyptus nitens* seed orchards with different selection histories. *Heredity*, 1-10. doi:10.1038/s41437-018-0119-5
- Tao, R., Wakelin, S. A., Liang, Y., Hu, B., & Chu, G. (2018). Nitrous oxide emission and denitrifier communities in drip-irrigated calcareous soil as affected by chemical and organic fertilizers. *Science of the Total Environment*, 612, 739-749. doi:10.1016/j.scitotenv.2017.08.258
- Telfer, E., Graham, N., Macdonald, L., Sturrock, S., Wilcox, P., & Stanbra, L. (2018). Approaches to variant discovery for conifer transcriptome sequencing. *PLoS One*, 13(11). doi:10.1371/journal.pone.0205835
- Tran, H., Harrington, K. C., Ghanizadeh, H., Robertson, A. W., & Watt, M. S. (2018). Suppression by three grass species of broom seedling emergence and survival. *New Zealand Plant Protection*, 71, 57-65. doi:10.30843/nzpp.2018.71.142

- Visnovsky, S. B., Lu, A., Panda, P., Taylor, R., & Pitman, A. R. (2018). Draft Genome Sequences of 14 Strains of *Pseudomonas* Isolated from *Prunus* sp. Plants. *Genome Announcements*, 6(3). doi:10.1128/genomeA.01481-17
- Wakelin, S., Gómez, M., Jones, E., Smaill, S., Lear, G., & Lambie, S. (2018). *Climate change induced drought impacts on plant diseases in New Zealand*.
- Wakelin, S., Tillard, G., van Ham, R., Ballard, R., Farquharson, E., Gerard, E., . . . O'Callaghan, M. (2018). High spatial variation in population size and symbiotic performance of *Rhizobium leguminosarum* bv. *trifolii* with white clover in New Zealand pasture soils. *PLoS One*, 13(2). doi:10.1371/journal.pone.0192607
- Wakelin, S. A., Gomez-Gallego, M., Jones, E., Smaill, S., Lear, G., & Lambie, S. (2018). Climate change induced drought impacts on plant diseases in New Zealand. *Australasian Plant Pathology*, 47(1), 101-114. doi:10.1007/s13313-018-0541-4
- Wang, H., Yang, X., He, L., Lu, K., Müller, K., McGrouther, K., . . . Liu, X. (2018). Using biochar for remediation of contaminated soils. In *Twenty Years of Research and Development on Soil Pollution and Remediation in China* (pp. 763-783).
- Wardhaugh, C. W., Stone, M. J., & Stork, N. E. (2018). Seasonal variation in a diverse beetle assemblage along two elevational gradients in the Australian Wet Tropics. *Scientific Reports*, 8(1). doi:10.1038/s41598-018-26216-8
- Watt, M. S., Kimberley, M. O., Dash, J. P., Harrison, D., Monge, J. J., & Dowling, L. (2017). The economic impact of optimising final stand density for structural saw log production on the value of the New Zealand plantation estate. *Forest Ecology and Management*, 406(Supplement C), 361-369. doi:https://doi.org/10.1016/j.foreco.2017.07.044
- Widsten, P., Murton, K., & West, M. (2018). Production of 5-hydroxymethylfurfural and furfural from a mixed saccharide feedstock in biphasic solvent systems. *Industrial Crops and Products*, 119, 237-242. doi:10.1016/j.indcrop.2018.04.032
- Wijeyekoon, S., Carere, C. R., West, M., Nath, S., & Gapes, D. (2018). Mixed culture polyhydroxyalkanoate (PHA) synthesis from nutrient rich wet oxidation liquors. *Water Research*, 140, 1-11. doi:10.1016/j.watres.2018.04.017
- Withers, T. M., Todd, J. H., Gresham, B. A., & Barratt, B. I. P. (2018). Comparing traditional methods of test species selection with the PRONTI tool for host-range testing of *Eadya daenerys* (Braconidae). *New Zealand Plant Protection*, 71, 221-231. doi:10.30843/nzpp.2018.71.183
- Wreford, A., Bayne, K., Edwards, P., & Renwick, A. (2018). Enabling a transformation to a bioeconomy in New Zealand. *Environmental Innovation and Societal Transitions*. doi:10.1016/j.eist.2018.11.005
- Xiao, Y., He, X., Ojeda-Lassalle, Y., Poovaiah, C., & Coleman, H. D. (2018). Expression of a hyperthermophilic endoglucanase in hybrid poplar modifies the plant cell wall and enhances digestibility. *Biotechnology for Biofuels*, 11(1). doi:10.1186/s13068-018-1224-7
- Xin, X., Pang, S., de Miguel Mercader, F., & Torr, K. M. (2018). The effect of biomass pretreatment on catalytic pyrolysis products of pine wood by Py-GC/MS and principal component analysis. *Journal of Analytical and Applied Pyrolysis*. doi:10.1016/j.jaap.2018.12.018
- Yang, I., & Han, G. S. (2018). Comparison of domestic and overseas allowable standards related to emissions from wood pellet combustion. *Journal of the Korean Wood Science and Technology*, 46(5), 553-564. doi:10.5658/WOOD.2018.46.5.553
- Yang, I., Kang, S. M., Kim, Y. H., & Han, G. S. (2018). Preliminary survey for setting evaluation standards of wood pellet safety. *Journal of the Korean Wood Science and Technology*, 46(5), 541-552. doi:10.5658/WOOD.2018.46.5.541
- Zeidler, H., Klemm, D., Böttger-Hiller, F., Fritsch, S., Le Guen, M. J., & Singamneni, S. (2018). *3D printing of biodegradable parts using renewable biobased materials*.
- Zhang, Q., Wakelin, S. A., Liang, Y., & Chu, G. (2018). Soil microbial activity and community structure as affected by exposure to chloride and chloride-sulfate salts. *Journal of Arid Land*, 10(5), 737-749. doi:10.1007/s40333-018-0014-1
- Zhang, Y., Lei, J. E., He, Y., Yang, J., Wang, W., Wasey, A., . . . Jin, Y. (2018). Label-Free Visualization of Carbapenemase Activity in Living Bacteria. *Angewandte Chemie - International Edition*. doi:10.1002/anie.201810834

Zhou, X., Xu, C. Y., Bai, S. H., Xu, Z., Smaill, S. J., Clinton, P. W., & Chen, C. (2018). Technical note: Manipulating interactions between plant stress responses and soil methane oxidation rates. *Biogeosciences*, *15*(13), 4125-4129. doi:10.5194/bg-15-4125-2018