

2024 Refereed Science Publications

Journal articles and conference proceedings papers from Scion – January to December 2024

Abbel, R., Risani, R., Nourtier, M., Donaldson, L., Brunschwig, C., Mayer-Laigle, C., Bridson, J. H., Thumm, A., Dickson, A., Murray, R., Harris, J., Beaugrand, J., & Hill, S. (2024). Coating of Hemp Fibres with Hydrophobic Compounds Extracted from Pine Bark. *Fibers*, 12(11), Article 96. <https://doi.org/10.3390/fib12110096>

Akhavan, S., Sanati, M. H., Irani, S., Soheili, Z. S., & Arpanaei, A. (2024). WS6 and 5-iodotubercidin small molecules and growth factors; TGF, HGF, and EGF synergistically enhance proliferation of β -like human induced pluripotent stem cells (iPSCs). *Journal of Diabetes and Metabolic Disorders*, 23(2), 2355-2364. <https://doi.org/10.1007/s40200-024-01503-6>

Aksamit, N., Katurji, M., & Zhang, J. (2024). Understanding Coherent Turbulence and the Roll-Cell Transition With Lagrangian Coherent Structures and Frame-Indifferent Fluxes. *Journal of Geophysical Research: Atmospheres*, 129(18), Article e2024JD041490. <https://doi.org/10.1029/2024JD041490>

Andreadis, K. M., Meason, D., Corbett-Lad, P., Höck, B., & Das, N. (2024). Hydrologic consistency of multi-sensor drought observations in forested environments. *Remote Sensing*, 16(5), Article 852. <https://doi.org/10.3390/rs16050852>

Armstrong, C., & Wakelin, S. A. (2024). Genome sequence of Bradyrhizobium sp. Ash2021, a free-living Bradyrhizobium species isolated from Pinus radiata forest soil. *Microbiology Resource Announcements*. <https://doi.org/10.1128/mra.00852-24>

Armstrong, C., Ganasamurthy, S., Wigley, K., Mercier, C., & Wakelin, S. A. (2024). The microorganisms and metabolome of Pinus radiata Pollen. *Environmental Microbiome*, 19(1), Article 103. <https://doi.org/10.1186/s40793-024-00656-4>

Aulia, M. P., Gonzales, R., Tabuchi, M., Kitagawa, T., Okamoto, Y., Zhang, P., Arahman, N., Yoshioka, T., Nakagawa, K., & Matsuyama, H. (2024). Chitin-augmented wetting resistance and water-in-oil emulsion separation performance of silane-modified polyketone membrane. *Journal of Membrane Science*, 710, Article 123115. <https://doi.org/10.1016/j.memsci.2024.123115>, <https://doi.org/10.1016/j.memsci.2024.123115>

Baillie, B., Elleouet, J., & Coker, G. W. R. (2024). Assessing the impacts of experimental mid-rotation forest fertiliser treatments on water quality. *New Zealand Journal of Forestry Science*, 54(1179-5395), 1. Article 12. <https://doi.org/10.33494/nzjfs542024x356x>

Bayne, K. M., & Grant, A. (2024). Who cares what happens with planted forests? A public typology to assist community engagement and communication. *Forest Policy and Economics*, 169, Article 103332. <https://doi.org/10.1016/j.forpol.2024.103332>

Bedoya, C. L., Bockerhoff, E. G., Hofstetter, R. W., & Nelson, X. J. (2024). Body size and sequence of host colonisation predict the presence of acoustic signalling in beetles. *Scientific Reports*, 14(1), Article 15532. <https://doi.org/10.1038/s41598-024-66108-8>

Bown, H. E., & Watt, M. S. (2024). Financial Comparison of Continuous-Cover Forestry, Rotational Forest Management and Permanent Carbon Forest Regimes for Redwood within New Zealand. *Forests*, 15(2), Article 344. <https://doi.org/10.3390/f15020344>

Bradley, E., Raymond, L., Bradshaw, R. E., & Mesarich, C. H. (2024). 1H NMR spectroscopic analysis of metabolite changes in kauri leaf apoplasmic washing fluid following inoculation with Phytophthora agathidicida. *New Zealand Plant Protection*, 77, 15-24. <https://doi.org/10.30843/nzpp.2024.77.11772>

Bradley, S., & Ghimire, C. (2024). Design of an Ultrasound Sensing System for Estimation of the Porosity of Agricultural Soils. *Sensors*, 24(7), Article 2266. <https://doi.org/10.3390/s24072266>

Bridson, J., Masterton, H., Theobald, B., Risani, R., Doake, F., Wallbank, J. A., Maday, S. D. M., Lear, G., Abbel, R., Smith, D. A., Kingsbury, J. M., Pantos, O., Northcott, G. L., & Gaw, S. (2024). Leaching and transformation of chemical additives from weathered plastic deployed in the marine environment. *Marine Pollution Bulletin*, 198, Article 115810. <https://doi.org/10.1016/j.marpolbul.2023.115810>

- Bridson, J., Thumm, A., Cooke-Willis, M., West, M., Campion, S., & Tutt, K. (2024). Comparison of near infrared and mid infrared spectroscopy for the prediction of *Pinus radiata* bark chemical properties relevant to a biorefinery. *Industrial Crops and Products*, 185, Article 107235. <https://doi.org/10.1016/j.biombioe.2024.107235>
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- Brunschwig, C., Smaill, S. J., Dickson, A. R., Murray, R., Raymond, L., Reid, N. M., Robertson, M., Xue, J., Hill, S. J., & Condrón, L. M. (2024). Host genetics shapes *Pinus radiata* phenotypic plasticity under drought and is linked with root-associated soil microbiome shifts. *Environmental and Experimental Botany*, 228, Article 105998. <https://doi.org/10.1016/j.envexpbot.2024.105998>
- Bryson, M., Ravendran, A., Mercier, C., Frickey, T., Jayathunga, S., Pearse, G., & Hartley, R. J. L. (2024). Domain adaptation of deep neural networks for tree part segmentation using synthetic forest trees. *ISPRS Open Journal of Photogrammetry and Remote Sensing*, 14, Article 100078. <https://doi.org/10.1016/j.ophoto.2024.100078>
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