

# School of Forestry update

Bruce Manley



Figure 1: Final year forestry students (2021) on an Environmental Forestry field trip to Craigieburn Forest Park

## School of Forestry numbers

We had another good enrolment of first-year students in 2022, with 38 first-year forestry science students and 10 first-professional year forest engineering students. There are 29, 30 and 27 BForSc students in Years 2, 3 and 4, respectively, and 13 and 12 BE (Forest Engineering) students in 2nd and 3rd Pro, respectively.

Graduating students from 2021 easily found employment – many of them had jobs well before the start of the final term.

## Death of final year BForSc student Theo Edwards

The School was a very sad place following the death of final year forestry science student Theo Edwards on 24 August

2021. Theo died from meningococcal disease. The news was devastating to us all, but particularly to the tight-knit fourth-year forestry science class. As a result of this, our students have pushed hard to support a national petition to Parliament that seeks free provision of all meningococcal vaccines to students in Year 11 or at 16 years of age.

Students and staff attended a memorial dinner for Theo at Lake Lyndon in October. It was helpful for all to be able to let his family know what he meant to us. We get to see our students develop over four years and they certainly become part of our whānau. It was very sad to lose a member. Given Theo's academic achievement, the University of Canterbury has deemed that he fully met the requirements of his degree and will consequently be awarded a BForSc posthumously.



Figure 2: Theo Edwards



Figure 3: Forestry graduates (final year at the School was 2020) on graduation day in April 2021

## Professor David Norton retires

Professor David Norton retired from the University of Canterbury in February 2022 after 37 years of service to the university. He has had a major impact on the forestry profession, having taught every student who has graduated from Te Kura Ngahere/School of Forestry over the last 37 years, as well as supervising many Masters and PhD research students. He has also been very active in a range of community and stakeholder organisations, most recently as Science Advisor to the Banks Peninsula Conservation Trust and as a Trustee at Riccarton Bush.

Over his career David's research has spanned a number of subfields of ecology and conservation biology, including the ecology of New Zealand's native forests, conservation and management of threatened plants, mistletoe biology, ecology of remnant habitats, restoration ecology, threat classification and significance



Figure 4: Professor David Norton

assessment. Most recently, he looked at the distribution and management of native biodiversity within primary production systems.

Over the last two decades, David has developed a strong relationship with the farming sector, both with individual farmers and with farming sector groups such as Federated Farmers, Beef + Lamb NZ, High Country Accord, the NZ Merino Company and the Red Meat Profit Partnership. His focus has been on helping farmers incorporate native biodiversity into farm management, including through management planning, ecological restoration and pest control, and biodiversity monitoring.

Over the last three years David has had funding from Te Uru Rākau to employ two Restoration Ambassadors to work with landowners in developing forest restoration proposals through the One Billion Trees Programme. Most recently, he secured funding through the MPI Sustainable Food and Fibre Futures Fund to develop a biodiversity extension resource to support farmers build biodiversity conservation into their farm management, a project that is ongoing.

David has been recognised both nationally and internationally for his contributions, as evidenced by having been elected a Fellow of both the New Zealand Institute of Forestry and the Linnean Society of London. His academic research has been widely cited and has included two books, as well as more than 150 peer-reviewed scientific papers, many in the top international journals in his field.

David has relocated to Lake Hāwea to be closer to the hills he so loves. We wish him well.

## New staff member – Dr Sarah Wyse

Dr Sarah Wyse joined the School of Forestry in January 2022 as a Lecturer in Forest Ecology. Her primary teaching within the school is on the topics of forest

biology and environmental forestry, with an emphasis on the botany and ecology of Aotearoa New Zealand's native forest flora, and the broader environmental and cultural issues associated with forestry.

Sarah's research interests focus on understanding plant regeneration ecology and forest community resilience to changing environments, and on applying this knowledge to forest conservation and management goals. She comes to the School of Forestry following post-doctoral research positions in both the UK and New Zealand. Sarah was first at the Royal Botanic Garden Kew in the UK, where she worked on the biology and ecology of seed conservation at the Millennium Seed Bank in West Sussex, then she held a position at Lincoln University examining wilding conifer dispersal.

Sarah continues to be actively engaged in these research fields and is currently supervising students on topics including wilding conifer establishment, seed conservation of native *Myrtaceae*, and the management of plantation forests for ecosystem restoration. She is keen to develop a broader research programme focused on understanding the seed and regeneration ecology of our forest flora, particularly with the aim of achieving conservation and restoration objectives.

### New staff member – Dr Hyungsuk (Thomas) Lim

Dr Hyungsuk (Thomas) Lim joined the School of Forestry, University of Canterbury as a Senior Lecturer in August 2021. His appointment is supported by the Wood Industry Development and Education (WIDE) Trust. His primary role is to extend the current curriculum in timber processing and engineering and possibly establish a degree programme in the longer term.

Thomas completed tertiary education in Canada with a BSc in Wood Products Processing at the University of British Columbia (UBC), a Masters in Civil Engineering at the University of Toronto and a PhD in Timber Engineering at UBC. After completing his PhD study, he joined Mississippi State University as an Assistant Professor in the Department of Sustainable Bioproducts.

With numerous graduate students and in collaboration with other research institutes, Thomas conducted comprehensive research on the development of engineered wood products, the structural performance of timber components and structures, and the evaluation of timber building technology, which would expand markets for timber owners and producers. As an example, the feasibility of manufacturing preservative-treated cross-laminated timber (CLT) from mechanical and processing perspectives was evaluated in collaboration with the United States Department of Agriculture Forest Service Forest Products Laboratory. Besides his academic experience, he has worked for glulam, i-joist, oriented-strand board and CLT manufacturers in various departments, including plant operations.

Thomas has developed a new course, 'Advanced Wood Products Processing', with content reflecting the New Zealand timber industry's interests and needs. The

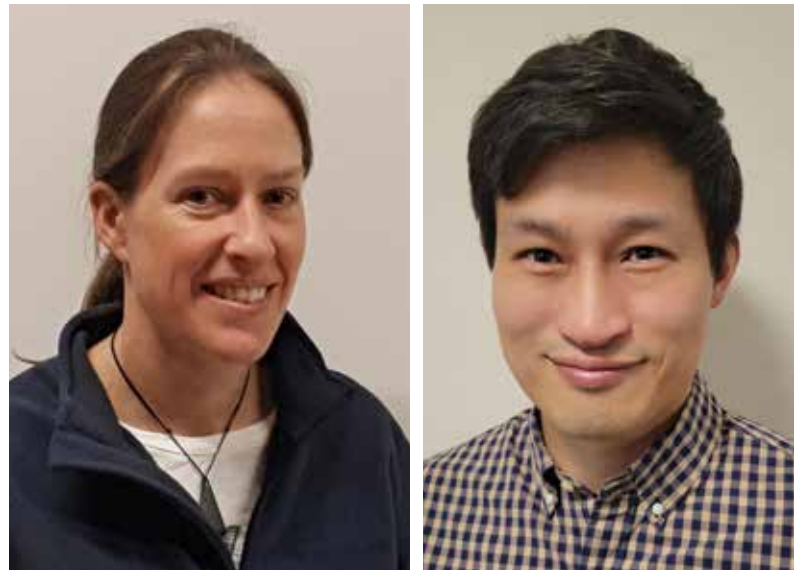


Figure 5: Left: Dr Sarah Wyse; Right: Dr Hyungsuk (Thomas) Lim

course is designed to deliver technical and practical knowledge in processing various timber products to students. At the same time, they are expected to obtain skills that are required or valued by the timber industry. Also, the students will have opportunities to interact with professionals from the timber industry through guest lectures.

From a research perspective, Thomas works closely with Associate Professor Minghao Li in the University of Canterbury Civil and Natural Resources Engineering department on the structural evaluation of mass timber connection and building systems. Currently, Thomas is recruiting graduate students to do research on developing innovative engineered wood products using small-diameter softwood and hardwood trees grown in New Zealand. The manufacturing feasibility of the proposed products will be evaluated from adhesion and mechanical performance perspectives. Connection assembly methods will then be developed, and their structural performance will be studied through experiments and numerical modelling work.

### Postgraduate students

The School's postgraduate students continue to thrive, despite the considerable challenges of undertaking their research and studies during times with COVID restrictions. Carlos Hiro (MForSc), Georgia Sharp (MSc(ENVR)), Zaw Naing (MForSc), and Paula Yarur Thys (MForSc) all completed their Masters degrees under Professor David Norton's supervision, while Adrian Loo (MForSc) was supervised by Associate Professor David Evison. Two PhD students also completed their studies, both under the supervision of Associate Professor Clemens Altaner. Congratulations to both Manuel Ferreras Moreno (PhD) and Ebenezer Iyiola (PhD). Ebenezer successfully defended his thesis in the final days of 2021 so will not graduate until April 2022.



Figure 6: PhD student Anne Wekesa – appointed Women Ambassador by the Society of Wood Science and Technology

Despite these successes, COVID has had an impact on the School’s ability to recruit new students into postgraduate study and so our overall student numbers are down to 18 PhD students and four Masters students. A special welcome to Carolin Weser (supervised by Dr Steve Pawson) and Haotian (Joe) Zhao (supervised by Associate Professor Justin Morgenroth) who joined the School in 2021. The School is looking forward to following the successes of our postgraduate students in 2022 as they continue to undertake cutting-edge research in forestry science and forest engineering.

PhD Student Anne Wekesa has been appointed a Women Ambassador Creating the Future of Wood Science by the Society of Wood Science and Technology (SWST). The role is part of SWST committing to the field of wood science for the future. She will be part of a SWST-sponsored exhibition designed to celebrate Women Ambassadors over time. Anne has just submitted her PhD thesis on the estimation and modelling of carbon stocks from harvested wood products in New Zealand.



Figure 7: Stuart Nash with recipients of Ngā Karahipi Uru Rākau – Forestry Scholarships

## Visit by Minister of Forestry

Forestry Minister Stuart Nash visited the School in May 2021. An alumnus of the School (MForSc 1994), Minister Nash took the opportunity to update School of Forestry staff on his plans for Te Uru Rākau – New Zealand Forest Service and to engage with recipients of Ngā Karahipi Uru Rākau – Forestry Scholarships. These scholarships have been awarded annually since 2019, with the first round of winners due to complete studies in 2022. The scholarship programme has been very successful at increasing the diversity of students at the School and in promoting its BForSc and BE (Forest Engineering) programmes throughout the country. A further six scholarships have been awarded to students who commenced study in 2022.

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Figure 8: Forestry Minister Stuart Nash updating School of Forestry staff on his plans for Te Uru Rākau – New Zealand Forest Service



Figure 9: Stuart Nash with School of Forestry Coordinator Jeanette Allen – old acquaintances from when the Minister did his MForSc at the School in 1994