

School of Forestry update

Bruce Manley

School of Forestry numbers

We had another good enrolment of first-year students in 2020 with 33 first-year forestry science students and 15 first professional year forest engineering students. There were 32, 20 and 20 BForSc students in years 2, 3 and 4, respectively, and 12 and nine BE students in second and third Pro, respectively.

Graduating students have been finding plenty of jobs available in the post-COVID recovery, with both the domestic and export markets finishing the year strongly.

School of Forestry 50th anniversary

The School of Forestry 50th Anniversary Conference and Reunion, planned for 16–17 April 2020, had to be postponed. A decision on when to reschedule the event will be made once there is a clearer way forward. We are hoping to hold it at a time when the significant number of internationals who registered for it will be able to attend.

Meanwhile, FORSOC took the opportunity to present the School with a tōtara tree and a plaque to commemorate the occasion. In the words of Gracie Perkins, FORSOC committee member, the tree was planted to ‘acknowledge how far as a school we have come, what we have done as professionals and students collectively to contribute to the forestry industry, and the future generations who shall reap the harvests or walk through our future forests.’



FORSOC president Erica Weblin presents to Head of School Professor Bruce Manley a plaque with the inscription: ‘*This plaque and a tōtara tree planted outside have been presented by FORSOC to the New Zealand School of Forestry | Te Kura Ngahere to commemorate 50 years of forestry education from 1970 to 2020*’



New staff member Dr Steve Pawson

Dr Stephen Pawson joined the School of Forestry in May 2020 as a Senior Lecturer in Forest Health and Biosecurity. He teaches a variety of courses both within the School, and more broadly at the university, with topics ranging from forest and insect biology to biosecurity. As UC’s only specialist entomologist Steve is assisting other departments with ongoing projects in the School of Biological Sciences, Computer Science, and the Wireless Research Centre.

As part of his role within the School of Forestry, Steve has responsibility for the forest health component of the NZ Dryland Forest Initiative (NZDFI), and is currently supervising Leslie Mann who continues her work on the resistance and tolerance of various naturally durable eucalyptus species to defoliation by paropsine beetles. Identifying breeding lines of those that are least impacted by these serious defoliators is an important component of maximising the productivity of these alternative species.

Steve is currently advertising for a second PhD position that will investigate options to reduce paropsine beetle populations by creating landscapes favourable to existing predators, (e.g. the cleobora ladybird beetle). This exciting project is a collaboration with Dr Toni Withers from Scion who has extensive experience in biological control of eucalyptus defoliators.

In addition to the NZDFI programme, Steve is keen to develop a broader research programme at the

interface of biosecurity and the natural and production forests of New Zealand. As part of this he has pulled together 30 academics from across the five colleges at UC to start a new transdisciplinary research cluster with a focus on biosecurity. This is an exciting initiative that you will no doubt hear more about in the future, but in essence it brings together different knowledge domains and disciplines from throughout the university to work on difficult biosecurity problems, including those



Tōtara being planted outside the School of Forestry to commemorate the 50th anniversary. FORSOC president Erica Weblin is planting the tree while FORSOC committee member Gracie Perkins looks on

related to forestry. As such, if you have a problem that is related to biosecurity (either at the risk assessment or pest management ends of the spectrum) he would love to hear from you.

Ongoing Restoration Ambassador funding

Te Kura Ngahere | School of Forestry (through Professor David Norton) received funding from the Te Uru Rākau One Billion Trees Fund to establish the Restoration Ambassador programme in 2019–2020. This allowed us to employ Dr Adam Forbes, a PhD graduate from Te Kura Ngahere, to provide free and independent advice to farmers, iwi and others in rural Aotearoa New Zealand on how to do good ecological restoration and assistance with preparing applications to the One Billion Trees Fund to help fund this work. The focus of the first year's work was the Gisborne and Hawke's Bay Regions, where there is limited access to good restoration information, but Adam also provided advice to landowners from Whangaroa in Northland to Banks Peninsula in Canterbury, and the Chatham Islands.

The first year was very successful and Te Uru Rākau have now funded the School of Forestry for a second year (2020–2021), which is allowing us to continue to employ Adam on a part-time basis as well as a new full-time assistant Restoration Ambassador position. This additional funding will allow us to continue with the great work that Adam has started and also to expand our coverage in the South Island as well. The South Island-based role has been filled by UC School of Forestry Masters graduate Josh Foster. There has been huge interest from farmers needing advice on how to establish native forests on their land. Having two people in the role will mean more free and independent advice can be provided to farmers, iwi and others in rural New Zealand on how to carry out good quality, planned ecological restoration. This project continues the strong link between Te Kura Ngahere | School of Forestry and Te Uru Rākau.

Final year forestry class marae visit

One of the two capstone courses in the final year of the BForSc degree is Environmental Forestry (FORE447). This course provides an overview of the broader environmental and cultural issues associated with plantation forestry in Aotearoa New Zealand using the framework of the ecosystem services provided by plantation forestry. The course focuses on biodiversity conservation, soil and water conservation, and cultural services, as well as the policy frameworks within which ecosystem services are managed. A particular emphasis is placed on bicultural competence and confidence, as Māori are key players in Aotearoa New Zealand forestry as landowners, as managers and as a people to whom forests are an essential part of life.

As part of this course, we try and organise a marae visit each year and this year we were fortunate to be able to visit Ōnuku Marae during Te Wiki o te Reo Māori (Māori Language Week). This marae is in



Restoration Ambassadors Adam Forbes (right) and Josh Foster (left) advise a farmer on native forest restoration



First-year forestry students help Nick Ledgard in the battle against wilding conifers



Final year BForSc students with Professor David Norton at Ōnuku Marae

a beautiful location on the shores of Akaroa Harbour and the manaakitanga (hospitality) we received was outstanding. The visit was a great opportunity for the class to discuss and reflect on a wide range of issues around Te Ao Māori (the Māori worldview of interconnectedness and interrelationship of all living and non-living things) and how these might relate to their future careers in forestry. We benefited greatly from the expert guidance of Carbon Te Aika (Kaiārahi Māori, Office of the AVC Māori, University of Canterbury) over the two days. On the way back to Christchurch we also visited Ōnawe Peninsula and had the chance to talk about some of the tragic events that happened there in the 19th century.

First-year field trip

In a normal year, all four year groups of forestry students go on a field trip during the April mid-semester break. In 2020, these had to be cancelled. As a

partial substitute, a field trip to Craigieburn Basin was organised for first-year students by Associate Professor Justin Morgenroth. The field trip included:

- Case study of harvesting Douglas-fir on Mt Bruce with helicopter extraction
- Cass field station
- Craigieburn forest park – conservation and recreation value
- The impact of wilding conifers. Under Nick Ledgard's guidance, students pulled out hundreds of Douglas-fir and contorta pine seedlings.

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