

He Kupu

Whakamahara

Chronicle



Feminist judgments

UC's Cultural Narrative

Strengthening ties with

CAREX team wins freshwater conservation award

The Canterbury Waterway Rehabilitation Experiment (CAREX), of UC's School of Biological Sciences | Te Kura Pūtaiao, has been recognised for improving freshwater biodiversity and ecosystem health in agricultural waterways with a prestigious award.

The CAREX team received the 2017 award and trophy at the Canterbury Aoraki Conservation Board (CACB) annual awards ceremony in December. CAREX is a solutions-focused research programme aimed at improving freshwater biodiversity and ecosystem health in agricultural waterways.

CAREX team member Dr Catherine Febria says CAREX conducts this research on working farms to develop solutions that reflect scenarios typical of agricultural waterways in Waitaha Canterbury and Aotearoa New Zealand.

"CAREX aims to share the science conducted across a network of Canterbury farms to demonstrate the importance of partnerships between science and the communities as a critical pathway for improving and advancing freshwater and farm management."

She says the team has undertaken multi-year trials and created demonstration sites. Also notable is that it has established a robust network of partnerships that includes 23 landowners and farm managers, along with more than 60 collaborators (scientists, engineers and stakeholders) across Environment Canterbury, rūnanga, central government, district councils, Crown research institutes, conservation groups (including Fish & Game NZ) and industry (including Fonterra and DairyNZ).

Connecting with iwi is considered an especially important part of the programme. One example is how CAREX has, for the past five years, engaged in science mentorship as part of UC's He Puna Pūtaiao programme, which connects Year 10 Māori students from schools across Ōtautahi Christchurch to conduct their own science projects about the health of Te Waihora Lake Ellesmere.

Science communication

The \$2000 prize from the Isaac Conservation and Wildlife Trust will be used to further a key component of CAREX — science communication.



CAREX research technician Hayley Devlin works in a farm waterway in Waitaha Canterbury, investigating nuisance aquatic weeds that cause flooding, fine sediment pollution and biodiversity problems in agricultural waterways.

CAREX will generate:

- a freshwater-farm biodiversity resource kit that can be taken to schools and local community events
- free online resources based on evidence-based in-stream restoration tools and riparian management strategies
- a series of workshops and field days focused on showcasing the tools and demonstration sites to the farming community, stakeholders and other potential end users.

The UC based CAREX team is made up of 15 freshwater ecologists, technicians and students — including Mackenzie Foundation Chair in Freshwater Ecology Professor Angus

Since 2013, CAREX has:

- added more than 16,000 native plants to farm waterways
- trialled different tools to reduce fine sediments and manage flooding due to aquatic weeds
- installed the first denitrification bioreactors in Canterbury to reduce nitrate pollution
- shown how adding plants to the habitat improves fish and invertebrate communities in otherwise degraded waterways.

www.carex.org.nz

McIntosh, Professor of Freshwater Ecology Jon Harding, and postdoctoral researcher Dr Catherine Febria — and involves nine farm waterways from Rangiora to Hinds. Key members of the team include Dr Kristy Hogsden, Dr Helen Warburton, research technician Hayley Devlin, and postgraduate students Katie Collins, Brandon Goeller and Tim Green.

About the awards

The Canterbury Aoraki Conservation Board annual awards recognise the efforts of local groups and individuals in supporting conservation within the wider Waitaha Canterbury region. The theme for 2017 was Fresh Water — Every Drop Counts, which highlights the importance of fresh water, as well as the excellent work happening in this area across Waitaha Canterbury. An advisory board of the Department of Conservation, the CACB is comprised of ministerial appointees and representatives from recreational organisations and iwi.