

Canterbury Branch of the Royal Society of New Zealand Te Apārangi July 2023 Newsletter

Dear Member,

We hope you are keeping well, warm, and safe.

The council has appointed Associate Professor Justin Morgenroth as the Branch representative for the Riccarton Bush Trust. Justin is at University of Canterbury School of Forestry and is the Postgraduate Director of Studies. Some of his research interests are understanding urban trees and the critical roles they play in cities around the world. He also leads the 'New Zealand Urban Forest Initiative', which connects researchers and urban forest stakeholders.

Krishna is continuing his work with the Branch strategy. We will in the coming months, be seeking your thoughts regarding the future direction, purpose, etc. for the Branch, so start thinking of what you like your Branch look like and achieve in the next 5 to 10 years and beyond.

Finally, we have awarded more student travel grants to students. See further in the newsletter for more on these, some events that are coming up hosted by other organisations, and links to some articles that might interest you.

Subscriptions

These have been sent out. If you did not receive an email you can either contact us by email subs@canterbury.rsnzbranch.org.nz, or you can pay by directly to the bank account

Bank Account: 02 0820 0601223 00

Payment Reference: Name and subscription year (2023)

Also please send any updated information, as detailed on the next page.

Membership database information update

Please take this opportunity, if necessary, to amend as detailed below. This is a requirement under the new Incorporated Societies Act. Please let us know if any of these details have changed since you last told us...

Title
Initials
Preferred Name
Last Name
Membership Class
Qualifications
Address
Email address
Phone (home)
Phone (work)
Phone (mobile)

If you want further information email subs@canterbury.rsnzbranch.org.nz

Students travel awards

We two more awards since the last newsletter. The full list of recipients so far this year is as follows:

Josie Dixon, \$1,000.00, Oral presentation, IFAC World Congress, Yokohama, Japan 9th – 14th July 2023

Katie Pitt, \$1,250.00, Oral/poster, European Vertebrate Pest Management Conference, Florence, Italy 28 Aug – 1 Sep 2023

Jaimey Clifton, \$1,000.00, Oral presentation of paper, IFAC World Congress 2023, Yokohama, Japan 9th July – 14th July 2023

Trudy Calje-Van Der Klei, \$1,000.00, Oral presentation, IFAC World Congress 2023, Yokohama, Japan 9th July – 14th July 2023

Chris Cameron, \$1,250.00, Oral presentation of technical paper, International Design Engineering Technical Conferences & Computers and Information in Engineering 2023: Mechatronics and Embedded Systems Applications, Boston MA USA 20-23 August 2023

Robin Krauss, \$1,825.00, 5-minute presentation of an ePoster, AMEE 2023, Glasgow, UK, 26 - 30 Aug 2023

We plan to have something from each once they return from their trips.

Timaru Talks

Planning is underway for three talks in Timaru co-hosted with the South Canterbury Museum. The topics are 'Darwin - His time in New Zealand', 'Smart cities and AI' and 'The psychology of waste, with a focus on water in Canterbury'.

Christchurch Event

There has been enough interest shown by members to organise a trip to the rebuilt **Observatory Tower (1896) and Townsend Telescope at the Arts Centre Te Matatiki Toi Ora**. We can also combine this with a visit to the **Teece Museum of Classical Antiquities, University of Canterbury Classics Department**, which is also at the Arts Centre.

We haven't a date set but we are looking at mid-August or early September. Please email me r.fagg@xtra.co.nz, if you are interested as we have about four places left.

CO₂ monitor

Don't forget that we have a CO₂ monitor, which you can borrow. It's been in regular use. Contact us and we will arrange for you to pick it up. A guide to recommended CO₂ measurements can be found at <https://www.rnz.co.nz/news/in-depth/470690/whose-breath-are-you-breathing>.

All we ask in return is that you post your findings on either the branch Facebook page or twitter.

News from other branches and RSNZ Te Apārangi...



2024 Science Teaching Leadership Programme Applications are now live!

Applications and nominations for the Science Teaching Leadership Programme 2024 are now live, tonono mai and apply now!

The Science Teaching Leadership Programme supports the Government's strategic direction for Science in Society by providing opportunities for primary and intermediate schools and secondary science departments to enhance the teaching of science within their school communities.

We are accepting applications for the first cohort starting in Term 1, 2024. Read more and apply now.

[View more](#)



[Toka Tū Ake EQC calls for Expressions of Interest for 2024 Biennial grants](#)

The Toka Tū Ake EQC 2024 Biennial Research Funding Programme is **now open for applications**.

Every two years, Toka Tū Ake EQC invites experienced and emerging researchers and practitioners to submit proposals for Biennial grants focused on public good research and available for public use. They invite proposals that are aligned with the [Research Investment Priorities Statement 2023](#).

EOI closing date: 17 July 2023

Organisation: Toka Tū Ake EQC



New Zealand Engineering Science problem solving competition

Can your students win \$1000 in the New Zealand Engineering Science Competition?

This fun and challenging day-long competition is targeted at teams of three to four senior students, who have interests in mathematics and science. The 2023 competition will run near the start of term 3, on Saturday 5 August. The problem is revealed at 10am in the morning and students work in their teams to provide a solution by 6pm of that day. First prize is \$1,000 per student and the two runner-up teams get \$500 per student. There is also a \$500 prize for the teacher in charge of each of the top three teams.

Registration is free and closes Friday 28 July.

For more information and to register your team(s) see the website:

<http://des.auckland.ac.nz/competition>

Otago Institute

Don't forget their Podcast 'Talking About' is up and running.

The show is produced through Otago Access Radio and is available through all the usual podcast channels and from the OI and OAR websites <https://oar.org.nz/talking-about/>.

They also have a Facebook group 'Otago Institute for the Arts and Sciences', which anyone can join. This will get you all the links and updates.

At Canterbury Museum...

Six Extinctions

The Museum's first exhibition at CoCA opens on 14 July at the start of Matariki. Six Extinctions, which premiered at the South Australia Museum in 2022, explores the five major mass extinctions that decimated life on Earth and the sixth that we're currently living through, climate change.

Come to see a life-size cast of the largest tyrannosaurus rex ever found and go on a journey of 485 million years exploring what caused the five previous mass extinction events. See what became extinct and understand how these events shaped the world we know.

Six Extinctions is produced by Gondwana Studios

14 July to 3 December, Canterbury Museum at CoCA

THE COTTER MEDICAL HISTORY MUSEUM

The collection of items in the museum was designated as being of National Significance by Te Papa in 2017. It contains the largest number of historical medical artefacts in any New Zealand collection.

The museum holds a wide range of surgical instruments, machines, devices, medicines, nursing memorabilia, photographs, archives and books.



Annex Road entry to the museum

The museum is situated on Christchurch's Hillmorton Hospital campus and is open to the public by request.

Phone (03) 339 2870
info@cottermuseum.co.nz
www.cottermuseum.co.nz

While you can arrange your own visit, if there is enough interest we could see if we could organise a branch trip later in the year.

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University of Otago Christchurch Free public talks

Join our public talk series

We hope you will join us for a series of free public talks across July and August. Each event will feature some of our leading health researchers and clinicians who will share their latest research findings and practical tips.

12 July

Ageing well: Never too early, never too late

How exactly do we maintain brain health, our spark and our dignity in the older years? Learn from our top clinical researchers how to 'use it before you lose it', the power of positive thinking, how to eat smart, think smart and keep your body strong.



26 July

Surgery and medicine of the future: AI, robotics and 'smart' implants

Artificial intelligence, virtual reality, robotics, 3D bone printing and 'smart' implants - high tech innovation is revolutionising the future of surgery and medicine. Come and hear our leading surgeons and researchers explain how futuristic technology could soon be coming to an operating theatre near you!



9 August

Adolescent health: Raising mentally resilient teens

Raising happy, healthy teenagers - it can be the biggest parental challenge. But how do I know if I'm getting it right? Join our leading clinical researchers as they share the latest thinking on the importance of sleep, the perils of social media, vaping, eating disorders and fad diets.



23 August

You are what you eat: Your gut, nutrition and the bowel

The experts tell us we are actually "more bug than human". What does that mean and how do we optimise gut health? Join our top clinicians and researchers as they lead you on a journey through the gut - learn how nutrition affects disease, the importance of the microbiome and how to reduce your risk of colon and gut cancers.



Refreshments from 5:30pm Talks from 6-7pm



Rolleston Lecture Theatre, University of Otago, Christchurch
2 Riccarton Avenue, Christchurch

For more information and to register:
events.otago.ac.nz/christchurch50/public-talk-series

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At Ashburton Museum...



NIWA Canterbury Westland Science Fair 2023

When: 16-17th September 2022 (16th Judging (am) and public viewing (pm), 17th Prize giving (11am) and Public Viewing (am)).

Where: University of Canterbury, fair held in the Ernest Rutherford Building, prize giving in Central Lecture Block.

The branch normally supports this event with awards and judges.

Links to articles of interest...

From *The Conversation*...

[We could need 6 times more of the minerals used for renewables and batteries. How can we avoid a huge increase in mining impacts?](#)

Rusty Langdon, University of Technology Sydney; Elsa Dominish, University of Technology Sydney

Nearly 400 new mines could open by 2035 to meet demand for the minerals used in global electrification. Better recycling can help with supply, but mining's impacts will have to be better managed.

[Bailout, Band-Aid or back to basics? 3 questions NZ's university funding review must ask](#)

Nicola Gaston, University of Auckland

The \$128 million funding boost for the tertiary sector is only a stop-gap measure. But it can buy time for a genuine rethink of the entire system.

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[With campus numbers plummeting due to online learning, do we need two categories of university degree?](#)

Ananish Chaudhuri, University of Auckland

With the pandemic-fuelled shift to online learning, many tertiary students now miss out on the social skills critical to real-world success. That could have implications for their degrees.

From *Nature Briefing*...

[Groundwater loss changed Earth's tilt](#)

Humans have pumped enough water from underground reservoirs to shift Earth's geographic North Pole at a speed of 4.36 centimetres per year. The motion of atmospheric masses and water masses during seasonal changes causes the planet's poles to naturally wobble by up to several metres every year. But [to fully explain how much the axis has tilted between 1993 and 2010, human-made groundwater shifts have to be taken into account.](#) More than 2 trillion tons of water were depleted from underground reservoirs during that time, particularly for irrigation in northwestern India and western North America.

[Nature | 4 min read](#)

Reference: [Geophysical Research Letters paper](#)

Finally...

You can keep updated via our Facebook page 'Canterbury RSNZ Branch' or Twitter @CanterburyRSNZ.

If you have any suggestions for speakers, field trips, or other ideas, please contact us. I am always willing to discuss anything regarding the branch with you.

Regards,

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