



**Royal Society of New Zealand
Canterbury Branch**

2023

**ANNUAL
REPORT**

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Officers and Council 2023

<i>President:</i>	Roger Fagg
<i>Vice-President:</i>	Krishna Dev Bhatta
<i>Honorary Secretary:</i>	Rob Cruickshank
<i>Honorary Treasurer:</i>	Fiona McGregor
<i>Council:</i>	Grant Bennett, Alec Ford, Will Godsoe, Mike Reid, Cor Vink, Tony Conner (co-opted since the last AGM), Amitrajit Sarkar (co-opted since the last AGM)

Representatives of the Branch

<i>Canterbury Museum Trust Board:</i>	Dr Rob Cruickshank
<i>Riccarton Bush Trust Board:</i>	Associate Professor Justin Morgenroth

2024 Annual General Meeting Notice

Notice is given of the 2024 Annual General Meeting of the Royal Society of New Zealand, Canterbury Branch, to be held at 7.00 pm on Wednesday, 20 March 2023, in Room W210 at Ara Institute of Canterbury, Madras Street campus.

Agenda

- 1 Roll, Apologies and Proxy Votes
- 2 Minutes of the Annual General Meeting held on 37 March 2023
- 3 Business arising
- 4 2023 Reports from Council and Representatives
- 5 2023 Financial Reports
- 6 Appointment of Auditor
- 7 Election of Officers and Council
- 8 Subscriptions
Council recommends the following motion: To set the subscriptions for 2024 to \$45 Ordinary, \$35 Retired and \$10 Student, all discountable by \$5 for prompt payment. Note: these are the same as the last two years.
- 9 *Motion:* That the Council move ahead with the processes to re-register as an incorporated society as required under the Incorporated Societies Act 2022 that may include modifications to the Constitution.
- 10 General Business

Minutes: 2023 Annual General Meeting

Minutes of the 2023 Annual General Meeting of the Royal Society of New Zealand, Canterbury Branch, held at 6.00 pm on Wednesday, 27 March 2023, in the TSB Space at Tūranga Library, 60 Cathedral Square, Christchurch 8011.

1 Roll, Apologies and Proxy Votes:

Apologies: Margaret Austin, Pat Campbell, Jeremy Hornibrook, Vaughan Laurensen, David McRae, David Painter, Anthony Wright (7)

Proxies received: None.

Present in person: Roger Fagg (Chair), Rob Cruickshank (minutes), Krishna Dev Bhatta, John Campbell, Tony Conner, Kelly Duncan, David Eddy, Alec Ford, Fiona McGregor, Tony Mander, Helen Pugh, Mike Reid, David Reynolds, Amitrajit Sarkar (14)

Present on Zoom: John Clemens, Paula Jameson, Sally Price (3)

Motion: That the apologies be accepted. Moved from the Chair.
Passed.

2 Minutes of the Annual General Meeting held on 30 May 2022:

Motion: That the minutes of the 2022 AGM be taken as a true and accurate record. Roger Fagg/Kelly Duncan. *Passed.*

Business arising: None.

3 2022 Reports from Council and Representatives:

Motion: That the President's Report be received. Moved from the Chair. *Passed.*

Alec remarked on the passing during the year of Brian Malloy.

Motion: That the Report of the Branch Representative on the Canterbury Museum Trust Board be accepted. Rob Cruickshank/Krishna Dev Bhatta. *Passed.*

There was no Report from the Branch Representative on the Riccarton Bush Trust Board as the previous incumbent (Professor David Norton) had stepped down and a new representative had not yet been appointed at the time of the AGM.

4 2022 Financial Reports:

Motion: That the Treasurer's Report be accepted. Alec Ford/David Reynolds. *Passed.*

5 Appointment of Auditor:

Motion: That David Reynolds be appointed auditor. Rob Cruickshank/Kelly Duncan. *Passed.*

6 Election of Officers and Council:

Motion: That Roger Fagg be appointed as Branch President. Rob Cruickshank/Kelly Duncan. *Passed.*

Motion: That Krishna Dev Bhatta be appointed as Branch Vice-President. Kelly Duncan/Rob Cruickshank. *Passed.*

Motion: That Rob Cruickshank be appointed as Honorary Branch Secretary. Mike Reid/John Campbell. *Passed.*

Motion: That Fiona McGregor be appointed as Honorary Branch Treasurer. Alec Ford/Rob Cruickshank. *Passed.*

Motion: That Grant Bennett, Alec Ford, Will Godsoe, Mike Reid, and Cor Vink be elected to Branch Council. Roger Fagg/David Reynolds. *Passed.*

7 Subscriptions:

Motion: That the subscriptions remain the same as 2022, being \$45 for ordinary members, \$35 for retired members, both discountable by \$5 for prompt payment, and \$10 for students (non-discountable). Kelly Duncan/Alec Ford. *Passed.*

8 General Business:

Kelly Duncan thanked the officers and Council for keeping things going in difficult times.

Roger Fagg reported that in 2023 a subcommittee of the Branch Council will be established to write a draft strategic plan for the Branch,

Roger Fagg reported that in 2023 the Branch would have a new website.

Meeting Closed: 6.22pm

Financial Reports

Treasurer's Report for the 12 months ending 31 December 2023

Royal Society of New Zealand Canterbury Branch Incorporated Statement of Financial Position at 31 December 2023

2022	Assets	2023
\$18,270.10	BNZ non-profit Org A/C	\$17,636.41
\$67.40	BNZ on call	\$69.06
\$40.00	Paypal account	\$0.00
\$41,114.79	RSNZ endowment fund trust	\$43,985.69
\$29,431.60	Shares (market value at 31 December)	\$32,197.15
\$3,500.00	Sundry debtors (UC RSNZ CB Trust)	\$7,330.00
\$92,423.89	Total Assets	\$101,218.31

Statement of Income and Expenditure to 31 December 2023

General Fund

2022	Income	2023
\$304.07	ANZ share bonus rights	\$0.00
\$1,682.05	Dividends	\$1,959.08
\$19.07	Interest	\$305.29
\$2,425.00	Subscriptions	\$2,130.00
\$220.00	Donations with subs	\$354.00
\$1,150.00	Subs RSNZ	\$880.00
\$5,800.19	Total income	\$5,628.37
	Expenditure	
\$377.41	Admin/Web hosting	\$454.00
\$456.99	Science fair prizes	\$600.00
\$600.00	Meeting expenses	\$1,216.40
\$561.20	Members excursions	\$200.00
\$1,995.60	Total general expenditure	\$2,470.40
\$3,804.59	Operating surplus (loss) for the year	\$3,157.97
-\$4,249.40	Gain (loss) in share market Values	\$2,765.55
\$288.63	Gain (loss) in RSNZ Endowment Fund	\$2,870.90
-\$156.18	Total surplus (loss)	\$8,794.42

Travel & Research Fund

Income

\$3,500.00	RSNZ CB Trust	\$19,100.00
\$3,500.00	Total income	\$19,100.00

Expenditure

\$3,500.00	Summer student grant	\$0.00
\$0.00	Student travel grant	\$19,100.00
\$3,500.00	Total expenditure	\$19,100.00
\$0.00	Total T&R surplus (loss) for the year	\$0.00

University of Canterbury Trust – Royal Society of New Zealand Canterbury Branch Fund Balances at 31 December 2023

UNIVERSITY OF CANTERBURY TRUST FUND

Account Number 93260 - Royal Society of NZ Canterbury Branch Trust

Balances as at 31 December 2022

DRAFT/ UNAUDITED 2022 Fiscal Year

		Total
\$537,213.53	1-Jan Balance	\$495,469.34
\$0.00	Additional Income	\$42,094.00
(\$51.11)	Expenses	(\$16,150.00)
\$537,162.42		\$521,412.00
	- Apportionment Of Distribution (Loss)/ Gain	-
	- CPI Adjustment To Base Capital	-
(\$41,693.08)	Revenue Reserve	(\$25,944.00)
\$495,469.34	31-Dec Balance	\$521,412.00

Royal Society of New Zealand Endowment Trust – Canterbury Branch Fund Balances at 31 December 2023

Canterbury Branch Fund			
	For period ended:	31/12/2023	
<i>Details</i>	<i>Date</i>	<i>Amount</i>	<i>Balance</i>
Opening Balance	1/01/2023	-	41,940.95
Income & Capital Growth	31/12/2023	2,044.74	43,985.69
Closing Balance			<u>43,985.69</u>

Statement of Accounting Policies and Performance

1. General accounting policies: The measurement base adopted is that of historic cost, reliance is placed upon the fact that the Society is a going concern.

2. Particular accounting policies:

- a) Shares are valued at market value on 31 December 2023
- b) These accounts have been prepared on a GST inclusive basis.
- c) No provision is made for taxation, as the Branch is exempt.
- d) The branch is an incorporated society and a registered charity with number CC28273 and must meet various management and reporting requirement as a consequence including annual submission of these accounts to the Charities Commission.

3. Changes in accounting policies: There have been no changes in accounting policies this year. **Circumstances around the production of this year's annual report have left insufficient time for auditing however this can be arranged if the AGM wishes it.**

4. Listed Shares: The Branch holds the shares as noted below. These shares remain from a group of shares received in the bequest of C&E Fenwick around Year 2000 and are AND 1004 and FPH 185. This year we opted not to take part in a capital raising issue by ANZ and received a payment for our rights instead.

5. RSNZ Endowment Fund: In 2020 the branch decided to invest funds in the RSNZ Endowment Fund. The RSNZ invests its own funds here along with funds from a number of branches in accordance with the Fund's Rules. This year growth was rather modest consistent with many other funds.

6. Non-Financial Assets: This report lists our financial assets only. For many years the branch has owned a tea trolley containing urns, teapots, plates and other associated wares. It resides in the kitchen in the central lecture block at Canterbury University. We also own several filing cabinets containing our records. These are all regarded as having no financial value.

7. Internal Financial Management: Council manages the finances of the Branch with internal checks and procedures. All monies received are credited into the Society's BNZ Non-Profit Organisation A/C and all subscriptions are paid by electronic transfer. Regular payments to

creditors are paid automatically. Other payments are listed for Council meetings and made by electronic transfer authorised by 2 of the 3 signatories.

8. The Royal Society of NZ Canterbury Branch (RSNZCB) Trust:

The University of Canterbury administers the trust as trustee. The trust was established in 1992 and is registered with the Charities Commission charity number CC45225. The capital came from a number of gifts to the University in its first decade from philanthropist Brian Mason and this has grown considerably since. The primary purpose is to support the Travel and Research grants makes to young scientists. The trust financial statements are publicly available on the Charities Commission website. However these figures are included in this report for the interest of members. The University is still in the process of making changes to its trust arrangement however it will remain as administrator of the trust. The year ending 31 December 2023 saw a return to pleasing income and growth in the trust funds

9. Performance Summary:

Overall Position: The accounts report a considerable gain for the year. There was a surplus in general expenditure and gain in share values and our funds with the RSNZ Endowment fund. The accounts are presented so as to clearly distinguish between our general activities and the grants we make for travel and research grants to mainly students as we are specifically funded for this from the RSNZCB trust and historically other sources such as bequests and member donations.

General Fund: We allocate subscriptions and investment income to the general fund and this was a surplus of several thousands of dollars over our meeting and other general expenses this year. While this surplus was closely matched by a decrease in the values of our shares it should be remembered that the shares have fluctuated in value by some thousands of dollars up and down since we have owned them

Travel and Research Fund: A return to a post Covid normality saw a number of grants awarded as listed and no summer grants.

Travel and Research Grants 2023

After the Covid years, 2023 marked a return to more business as usual for the Branch's Travel and Research Grants. We paid out 18 grants for travel in 2023 and early 2024, totaling \$18,350.00. It was pleasing that

most recipients have provided reports, which have been circulated with the Branch newsletter. We paid out several grants for research or career development opportunities in addition to the usual conference travel. It is also pleasing to see that a number of recipients also managed some sort of research experience along with their conference.

Members may recall that in recent years, the University of Canterbury has been in the process of restructuring the governance of its trust funds. This involves the Attorney General and the High Court and is still ongoing. The current and likely final situation for the RSNZ Canterbury Branch Trust is that the funds will be managed in the pool with all the other UC trust funds but that it stands a bit outside their management because of the involvement of the Branch in the disbursement of those funds. You may also recall that prior to Covid, there was a suggestion that the funds in the trust be “given back” to the Branch, but this is firmly off the table now. The appointment of Adela Kardos as General Counsel and Registrar at the University brought a new look at the fund and the University took legal advice specifically in respect to its relationship to the RSNZ CB trust. The RSNZ CB trust deed is quite clear that the funds in the trust were given to the University, and it is clear now that the University has control of the funds. To this end, the previous loose arrangements about when the Branch requests funds from the trust have been tightened. This is also partly in response to updated trust law, which requires that trusts actually spend the money they have in accordance with their trust deed. We are now working towards taking money from the trust twice a year to cover our grants. The annual accounts show the money we expect from the last group of grants in 2023 as a sundry debtor. Discussions with Adela Kardos have been clear that the money is to be used for assisting young scientists in accordance with the wording of the trust deed and our own guidelines.

The trust also received some legal advice this year on how some of the wording in the deed that is not consistent with recent trust law, changes, particularly the change of advisory trustees to Trustee Advisers with different responsibilities. The Legislation Act 2019 allows things like this to continue without change.

The challenge of the future is managing the allocations of grants within the available funding. The trust’s funds must be managed in perpetuity and that means to maintain the effective spending power some income must added to the capital to adjust it for inflation. The economic cycles run in time frames of around 10 years. Since its inception in 1992, the

trust has seen great gains some years followed by stagnant and even diminishing value in its capital. The University tends to only have a two-year view and unspent income is then added to the capital. How we manage this to provide a steady number of grants each year remains to be seen.

The number and type tertiary education providers has changed in the 30 years since the inception of the trust, and how our grant guidelines reflect this is one of our challenges to come. Changing times have also seen a decrease in organizations that offer small partial grants like ours. Currently grants totaling around \$20,000 per year more or less balance the need to inflation-adjust the capital and spend the remaining income over the long term.

At the time of writing, we have the draft results for the trust financial performance for 2023. While this shows a reasonable return for the year, this is off a diminished base after the fall in funds in 2022. Total funds are just above the 2021 level and below the 2022 level. There were great gains from 2017 to 2021 so we should look at these 2023 figures in the context of the longer term. We made efforts to raise the profile of our grants last year and after several years with no applications, we may now have the problem of ‘rationing’ our grants to meet the wording of the trust deed.

Alec Ford, March 2024

Recipients of Travel and Research Grants awarded in 2023

Josie Dixon, Ph.D., Centre for Bioengineering, University of Canterbury, Oral presentation, Novel Assistive Devices for Umbilical Artery Catheterisation, IFAC World Congress, Yokohama, Japan, 9th – 14th July 2023, \$1,000.00

Katie Pitt, Ph.D., Agriculture and Life Sciences, Lincoln University, Oral/poster, Recommendations for Reducing Environmental Impact of Pest Mammal Monitoring Options in New Zealand, European Vertebrate Pest Management Conference, Florence, Italy, 28 Aug – 1 Sep 2023, \$1,250.00

Jaimey Clifton, Ph.D., Mechanical engineering, University of Canterbury, Oral presentation of paper, Physical Simulation of Obstructive Respiratory Disease, IFAC World Congress 2023, Yokohama, Japan, 9th July – 14th July 2023, \$1,000.00

Trudy Calje-Van Der Klei, Ph.D., Biomedical Engineering, University of Canterbury, Oral presentation, Pulmonary Response Prediction through three personalized basis functions in a virtual patient model, IFAC World Congress 2023, Yokohama, Japan, 9th July – 14th July 2023, \$1,000.00

Chris Cameron, Ph.D., Biomedical Engineering, University of Canterbury, Oral presentation of technical paper, Heart-Rate Variability Metrics As A Measure Of Stress During Unsedated Medical Procedures, International Design Engineering Technical Conferences & Computers and Information in Engineering 2023: Mechatronics and Embedded Systems Applications, Boston MA USA, 20-23 August 2023, \$1,250.00

Robin Krauss, Medical student (6th year – Trainee Intern), Christchurch Campus, University of Otago, 5-minute presentation of an ePoster, Learning Barriers and Facilitators for students in General Surgical Rotations, AMEE Glasgow 2023, Scottish Event Campus (SEC), Glasgow, UK, 26 - 30 Aug 2023, \$1,825.00

Kiri Barr-Glintborg, Ph.D., Psychology Department, University of Canterbury, Poster, Anterior thalamus, its neural efferents, and spatial working memory in rats, 50th Annual General Meeting of European Brain and Behaviour Society (EBBS), Flemish Arts Centre De Brakke Grond, Nes 45, 1012 KD Amsterdam, 26th – 29th August 2023, \$1,250.00

Karina Kelly, Masters, School of Earth and Environment, University of Canterbury, Research Internship, I will be a part of the Ecology and Genetics of Conservation and Restoration (“Ecogere”) team, Fauna Observatory, University of Bordeaux for two months, 16 Oct 2023 – 15 Dec 2023, \$1,825.00

Rebecca Lee, Ph.D., Department of Medicine, University of Otago, Christchurch, Oral/Poster, Long-term impacts of cannabis on resting state functional networks: are there any?, Australasian Winter Conference on Brain Research (AWCBR), Queenstown, New Zealand, 26 – 30 August 2023, \$400.00

Thomas Maslin, Ph.D., Department of Mechanical Engineering,, University of Canterbury, Poster at conference + visit of possible international collaborators, Open-source method for layout cell parameterization through feature recognition for procedural generation of lithography files, Micro and Nanoengineering '23 (MNE23),, Berlin,, 25-28 September 2023, \$1,250.00

Jade Gibson, Masters, Environmental Science, University of Canterbury, Oral presentation, Standing in both worlds: exploring hapu-led biosecurity management at Whareponga, Queenstown Research Week – He taonga tuku iho, Queenstown, New Zealand, 27 Aug – 01/Sep 2023, \$600.00

Gus Allerm, Ph.D., Computer Science and Software Engineering, University of Canterbury, Paper & Oral presentation, LivePublication: The science workflow creates the paper, eScience 2023, Limassol, Cyprus, October 9-13, 2023, \$1,250.00

Juhy Paily, Ph.D., School of Psychology, Speech and Hearing, University of Canterbury, Oral, Unleashing Possibilities: Exploring Methods to Support the Agency of Children Who Communicate Differently, New Zealand Association for Research in Education (NZARE), Palmerston North, 20- 22 November, \$600.00

Sophie O'Brien, Ph.D., School of Biological Sciences, University of Canterbury, Research, Predicting how landscape configuration influences the provision of nature's benefits, My research visit will include participating in a workshop, Laboratoire d'Ecologie Alpine, Université Grenoble Alpes in Grenoble, France, April–May 2024, \$1,250.00

Kenny Ardouin, Ph.D., School of Psychology Speech & Hearing,, University of Canterbury, Oral, Designing, delivering and evaluating a camp for people with cleft lip and/or palate in New Zealand and Understanding clinician perspectives of transitioning patients from childhood to adulthood in New Zealand, Appearance Matters 10 (AM10), Bristol, United Kingdom, 11 June 2024 – 13 June 2024, \$1,250.00

Rebecca Attwell, Ph.D., Sports Science, University of Canterbury, Oral, Influence of the Menstrual Cycle and Body Image on Female Athlete Experiences, Sport & Exercise Science NZ (SESNZ) and Asia-Pacific Society for Physical Activity (ASPA) conference, Victoria University, Wellington, 27-29th November 2023, \$600.00

Nicky Slater, Ph.D., School of Psychology, Speech and Hearing, University of Canterbury, Oral, Structural integrity of cholinergic pathways associated with executive function networks in Parkinson's disease., Annual Meeting of the Australasian Cognitive Neuroscience Society (ACNS), University of Sydney, Australia, 27 – 30 November 2023, \$750.00

Jean-Louise Roberts, Masters, Pest Management and Conservation, Lincoln University, Oral, Brushtail possum (*Trichosurus vulpecula*)

movements and removal success in the sea-cliff eco-systems of Banks Peninsula, Australasian Wildlife Management Society Conference, Melbourne Australia, 5-7 December 2023, \$750.00

President's Report 2023

It is with pleasure that I present the 2023 president report to the Branch members.

While it seems that the Branch has had a quiet year, behind the scenes, the Council has been busy reviewing what the Branch has done over the past couple of years. The Vice-President, Krishna, has worked on a draft Strategic Plan; Fiona, with the assistance of Amit and Alec, has created a new website; and the Student Grant Subcommittee lead by Tony, has been recommending the travel grants that we should award.

During the year, the Council co-opted Tony Conner to the Council and as a Fellow, he provides a valuable link between the Branch and Fellows, as well as the coordinating the Student Grant Subcommittee.

With the resignation of Dr David Norton, as the Branch's representative on the Riccarton House Trust Board, we appointed Dr Justin Morgenroth to represent us.

We again held five public talks in Timaru, with an average attendance of 50. About 20 members also enjoyed a field trip to the Teece Museum and the Townsend Telescope. It has been suggested that this becomes an annual event.

We also again provided prizes and judges for the Canterbury Westland School Science Fair. These opportunities are important for the Branch as they encourage future researchers and because of this, the Council has agreed to give financial support the Children's University.

The 2023 Research Honours, held by the RSNZ in Christchurch provided an opportunity to network and discuss how relevant the Branch is in Canterbury, and overwhelmingly there is support for the Branch. We just need to tap into this.

We have also been considering the future, and how to deliver the objectives of the Branch in this modern era. The draft Strategic Plan, will help, as will continued support from the current and future members. We are aiming to encourage and support students and early career researchers by creating a digital audio program (podcast).

There are plans to restart public talks in Christchurch, while continuing with talks in Timaru and we will also consider starting talks in Ashburton. We will look at partnerships with other organisations as a way of providing more opportunities to members and to promote the Branch.

More content will be added to the website, including the ability to join, pay submissions, and give donations online.

However, nothing can be achieved without our current and new members, and we expect that if we follow the plans we have developed, a greater public profile and increased membership will follow.

I would like to finish with some thanks to our representatives on the Canterbury Museum Trust Board, Dr Rob Cruickshank, and Riccarton Bush Board of Trustees, Dr Justin Morgenroth, for their enthusiasm in representing the Branch.

To our honorary Secretary Rob, who after many years as councillor, secretary, and president has tendered his resignation. To the Treasurer Fiona, and the rest of the Council, Grant, Alec, Will, Mike, Cor, Krishna, and Tony, many thanks for your help and support.

And of course, to you the members, thank you for your continuing membership of the Branch. Your support has been the motivation for the Council to make the decisions it has.

Roger Fagg, Branch President

2023 Programme

Timaru talks (total number attending talks = 250)

Rob Lewis, Science Communicator, NZ Marine Studies Centre
Portobello - University of Otago: *Shark Spy - recording our marine life*

Dr Michael Price, Victoria University: *A Sunny Future - new materials for solar power*

Prof. Murry Rae, Theology Programme, University of Otago:
Anticipations of the Heavenly Jerusalem in Medieval and Renaissance Cities: An Architectural Study

Emeritus Prof. Malcolm Clark, Southern Cross University Sydney
Wastes: *Changing Psychologies for Better Resource Use*

Amit Sarkar, Senior Academic, Ara Institute of Canterbury:
Empowering Smart Cities through Citizen participation: Transforming Urban living

Christchurch field trip

September, Teece Museum and the Townsend Telescope, 20 members.

Representatives' Reports

Canterbury Museum Trust Board

Dr Rob Cruickshank, School of Earth & Environment, University of Canterbury

2023 was a busy year for the Museum, despite the fact that the main buildings on Rolleston Avenue have been closed since April. After a hugely successful *Shift* exhibition that saw the walls of the Museum covered in street art by more than 60 artists, the site shut for the last time until the rebuilt museum opens in several years, and demolition of the buildings that are to be replaced quickly began. Nevertheless, the Museum continues to be as active as ever. In July, it opened its new space at CoCA, with a very well-received exhibition about mass extinctions featuring among other things, a life-sized replica of the largest *T. rex* skeleton ever discovered! CoCA also houses some old favourites from the Museums' collection, not least the horse from the Christchurch Street, which has been a firm favourite with generations of local children. It's well worth a visit if you haven't been yet!

June also saw the Opening of *Ship Nails and Tail Feathers*, a collaborative exhibition between the Museum and Christchurch Art Gallery Te Puna o Wauwhetū, at the art gallery with objects and artworks handpicked by curators of both, telling tales from the collections of these two very different but complementary institutions. The Museum is using the closure of its main buildings to strengthen its relationships with its partners and neighbours in the city, and you can expect to see more treasures from the Museum's collections popping up in perhaps unexpected places over the next few years.

Quake City continues to be very popular with record numbers of highly satisfied visitors, and Ravenscar House is building its reputation among both locals and visitors as a particularly fine example of a house museum, an increasingly popular trend in the museum world around the world. As well as its three sites in the central city, Museum staff have been taking travelling exhibitions and programmes out to the wider community, with over 10,000 school students participating in Museum education

programme, over 10,000 more joining a Museum public programme during the year.

After a mammoth move into temporary facilities (which has been [well documented on the Museum's new website](#)), Museum staff have now turned their attention to the equally ambitious project of designing the exhibitions for the new building. This is an opportunity for the Museum to strengthen its relationships with mana whenua, and this is at the centre of the Museum's long-term strategy. This strategy goes well beyond the redevelopment, which is just the first step in a much longer journey that has been named *Araiteuru – Ara nui, Ara roa, Ara ake rā – A Great Journey, An Extended Journey, A Revealing Journey*, recognising Araiteuru, the first great waka to arrive in Te Pounamou, the South Island. As an early part of this journey, the Board were hosted for a noho marae at Rehua Marae earlier this year to learn about and explore aspects of te o Māori and begin conversations about this exciting new direction for the Museum.

The Museum's research staff have been very active participants in many aspects of the local community and the imprint and influence of the Museum continues to be strongly felt elsewhere in the city and further afield, with staff contributing widely to professional societies, research activities, and university teaching. The collections are available to researchers as before and staff continue to process loans and other requests.

It has been a challenging year for the Museum, but these challenges seem to have brought the Museum team closer together and the feeling is very much one of optimism and the seizing of opportunities presented by these unusual circumstances. The future seems very bright indeed and I, for one, am excited to see what comes next. Watch this space!

Riccarton Bush Trust Board

Associate Professor Justin Morgenroth, School of Forestry, University of Canterbury

This report on the Riccarton Bush Trust Board's activities for the 2023 calendar year was written in my role as the representative of the Canterbury Branch of the Royal Society of New Zealand. It is a privilege to serve the Trust Board and I am appreciative of the Canterbury Branch for appointing me for my first term. I am an active Board member, having attended all meetings since my appointment, and I also chair the Bush

and Grounds subcommittee of the Trust Board. Following my appointment, I attended my first board meeting in July 2023. Coincidentally, this also marked the date of the annual board photograph (see below).



Riccarton Bush Trust Board members (l to r) – Marie Pollisco, Justin Morgenroth, Pippa Ensor, Bob Lineham, Bob Shearing (Chair), and Shirish Paranjape. Missing: Mark Peters, Nigel Harris, Tim Deans.

In 2023, a key focus of the Trust was addressing the draft Housing and Business Choice Plan Change proposed by the Christchurch City Council in April 2022. Concerned about the insufficient protection of Pūtaringamotu Riccarton Bush, the Trust advocated for amendments. As a result of the Trust's request, the Council revised the proposal to include a Riccarton Bush Interface, an 8 m height limit within this interface, and retention of the 35% site coverage rule. The Trust Board submitted further recommendations, urging the reinstatement of a 10 m buffer from the predator-proof fence and notification of resource consents for non-compliance. Shona Willis (Manager) and former Trustee Prof. David Norton presented evidence supporting the Trust's submission at the Independent Hearings Panel in November. This process remains ongoing.

The Trust continues its work on the Bush Enhancement Project, which had to be divided into two stages due to insufficient funding. Stage 1 focuses on infrastructure upgrades, including enhancing the boardwalk,

pathways, and entranceway, as well as updating the irrigation and fire systems to facilitate better protection. Notably, the fire system upgrade received a \$95,000 grant from the Lotteries Commission. Stage 1 is estimated at \$1.2 million, with proposed commencement in 2024 pending adequate funding.

Feral Rock pigeons pose a growing threat to the Pūtarīngamotu Riccarton Bush ecosystem, drawn to its predator-free environment. Nesting on the ground, a unique behaviour globally, they disrupt the ecosystem by damaging Kahikatea trees and acidifying soil with their excrement. We believe that this competition for space directly impacts native bird populations. Collaboration between Ranger Mike Steenson, and University of Canterbury staff and students provides valuable insights into pigeon behaviours and movements, aiding regional control efforts. GPS tracking, costing \$2000 per unit, informs a Master's student thesis and future control strategies, though this means that Ranger Mike has had to stop shooting intended to control the pigeons. Meanwhile, Ranger Mike addresses other pests like stoats and rats by involving local schools in trap-building initiatives.

Weed removal is a significant operational focus at Pūtarīngamotu Riccarton Bush, aiming to eliminate exotic species and prevent their spread. For instance, in July alone, approximately 4 cubic meters of blackberry were eradicated. Cleared areas are replanted with native species, particularly native grasses, to deter weed resurgence by shading and minimising infestation.

The Bush and grounds experienced significant tree damage during October's winds, prompting extensive pruning by contracted arborists. One mature kahikatea lost its entire crown, leaving only a 12-14 m tall trunk (see image on p.18). Additionally, a red oak had to be removed due to the damage and declining condition. In 2024, we plan to fence off and mulch two aging pear trees to protect them from further damage. Our "Fulcrum" database, implemented in 2022, is instrumental in documenting tree health and maintenance efforts.

University of Canterbury students are investigating the spatial variation in soil characteristics within the Bush. Initial observations by the Ranger, based on this sampling, indicate poor drainage in many areas, likely due to clay-based surfaces. Standing water in winter is attributed to rainwater rather than groundwater seepage. The soil appears highly compacted despite no historical traffic, presenting an intriguing area for further study.



*A mature kahikatea tree lost its crown in the strong October winds.
What remains is a 12-14m high trunk.*

Branch Membership

	2023	2022	2021	2020
Honorary	0	0	1	0
Life	1	1	1	3
Ordinary	30	36	55	76
Retired	33	28	33	49
Student	0	0	0	1
Fellows	35	-	41	40
Total	99	65	131	169

Constitution

See the 2018 Annual Report for the **Constitution** and the text of the **RSNZ Canterbury Branch Trust Deed**. The Constitution can also be downloaded from our website here:

https://www.royalsocietycanterbury.org.nz/_files/ugd/8de508_126b9b3702f04649b07ea1f081fedfe8.pdf