

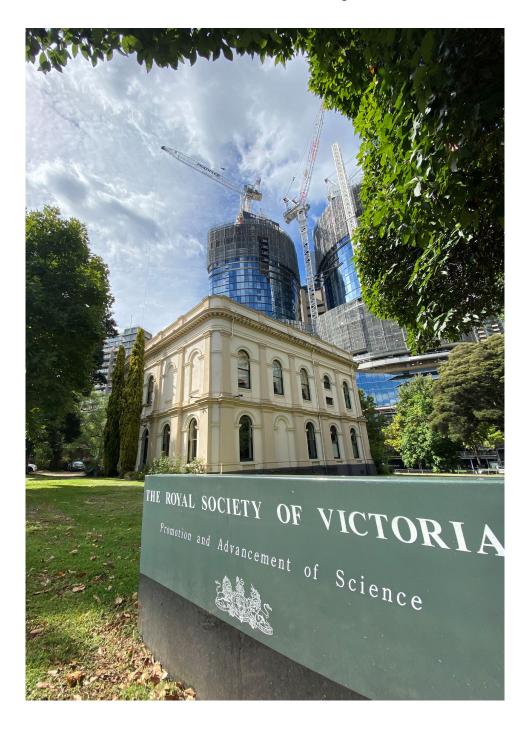
Royal Society OF VICTORIA -ince since 1854

Promoting science since 1854

PATRON: The Hon Linda Dessau AC Governor of Victoria

PRESIDENT: Mr David Zerman

2020 Annual Report



THE ROYAL SOCIETY OF VICTORIA INCORPORATED

ABN 62 145 872 663

ANNUAL REPORT FOR THE YEAR ENDING 31st DECEMBER 2020

Council has the honour to present its report to Members upon the activities of the Society during its 166th year of operation.

PATRON The Hon Linda Dessau AC

Governor of Victoria

COUNCIL

OFFICE BEARERS

President Mr D. Zerman, MPH

Vice-President (to November) Mrs N. H. Williams, BSc, DipEd, MSc

Vice-President (from November) Mr R. Gell AM, BSc (Hons)

Immediate Past President

Dr W. D. Birch AM, BSc (Hons), PhD

Honorary Secretary

Dr P. G. Baines BA (Hons), BSc, PhD

Honorary Treasurer

Mr A. Davison, BSc, BComp (Hons)

MEMBERS

Dr S. Frentz, BSc (Hons), PhD

Dr V. Perunicic, BSc, MSc, PhD

A/Prof. R. Day, BSc (Hons), PhD

A/Prof. G. Smith, BPS, GradDip, MEH, PhD

Dr K. Orrman-Rossiter, BAppPhys, MAppSci, PostgradDip, PhD

Dr C. de Burgh-Day, BSc, MSc, PhD

Ms P. Borger, BSc (Hons), DipEd, MEd

Prof. D. Walker, BSc, PhD, DSc

Dr J. Canestra, MBBS, MPH

RETURNING OFFICER

Dr W. D. Birch AM, BSc (Hons), PhD

CHIEF EXECUTIVE OFFICER

Mr M. Flattley, BA, GCertTerEd(Mgt), GradCertDes(MultiMedia)

TRUSTEES

Dr A. S. Finkel AO, PhD

Prof. L. Selwood AO, MSc, PhD

Cover: "Sapphire on the Gardens" and "Shangri La Hotel" twin towers under construction beyond the RSV's Melbourne headquarters at 8 La Trobe Street.

FELLOWS OF THE ROYAL SOCIETY OF VICTORIA

1995	David H. Ashton*		Barry O. Jones
	Herbert H. Bolotin*		John F. Lovering
	Phillip G. Law*	2004	Thomas A. Darragh
	Dewar W. Goode*		Joyce R. Richardson'
1996	Jerry M. Adams	2005	Hilary J. Harrington*
	Clive K. Coogan*		Murray J. Littlejohn
	Suzanne Cory	2008	David V. Boger
	Sir Gustav Nossal	2010	Milton T. W. Hearn
	Sir Arvi Parbo*	2016	Peter C. Doherty
	Graeme I. Pearman	2018	Lynne Selwood
	John A. Talent	2019	Sandra Rees
1999	James M. Bowler	2020	Pauline Ladiges
	Nancy F. Millis*		Tom Beer
2001	Yvonne Aitken*		Jennifer Graves
	Martin R. Harris		Peter Thorne

^{*} Deceased



PRESIDENT'S REPORT

Mr D Zerman

It all started with a phone call......

I was at home about seven years ago on a Tuesday night, when my mobile rang at about 7.30pm. The call went something like this.

David Zerman (DZ): Hi Bill, (Birch - BB) how are you?

BB: Fine thanks David. We've just finished an RSV Executive meeting and I was asked to call you with a request.

DZ: Fine Bill. How can I help you?

BB: Our Vice-President Pauline Ladiges will be resigning to take up a senior leadership position at the Australian Academy of Science in Canberra and the Executive would like you to stand for the position.

[Silence for about 30 seconds.]

DZ: Bill, I'm very honoured. I need to think about it – while I'm thinking about it, I have a few immediate questions. When does the Executive meet?

BB: Tuesdays.

DZ: I can't attend Tuesday late afternoon/early evening meetings as Sarah (Barzel - my wife) and I have long standing commitments on Monday, Tuesday and Wednesday evenings. Also on Friday nights we have traditional family Jewish dinners. So that leaves only Thursday afternoon/evenings for me to attend Executive meetings.

BB: OK, we'll change Executive meetings to Thursday if that makes it easier for you?

DZ: Also, I don't have any science qualifications. I'm just interested in science, which is why I joined the RSV.

BB: Not an issue. Our early Presidents and Executive members didn't have any either. That's not an issue. It's just great that you're really interested in science.

DZ: Bill - and this is the main issue for me - normally the Vice-President becomes the

President and there is no way I will become President.

BB: Don't worry David – that issue is about two years away and we can discuss it closer to that time.

DZ: Bill, I'm really honoured but I can't answer straight away. I want to discuss this with Sarah and check my calendar to see how it would work taking account of my work, existing volunteer commitments and our family plans.

I thought about this over the next few days and rang Bill early the following week:

DZ: Hi Bill, I've been thinking about your request. I've looked at my calendar and discussed the Executive's request with Sarah to see how it would work for our family arrangements. So that's OK, if the Executive and Council meetings are held on Thursdays.

BB: That's not an issue - we can arrange that for Thursdays.

DZ: The other matter is about the VP becoming President. As I said, there's no way I feel I could become President with my non-scientific background.

BB: Don't even worry about that David. We can find someone to stand as the date gets closer in two years' time.

Two years later there were many discussions in the Executive about me standing for the role of President. When people ask me how I became President of the RSV I tell them we were at an Executive meeting and Bill asked everyone to stand in a row. He then said something I didn't hear, and everyone took a step back. Then everyone said: "Congratulations on agreeing to be the next President."

Somehow "democracy" worked in an unusual way and that's how I was elected President.

My past four years as the volunteer RSV President is something I could not have imagined now that my second two-year term is completed.

Looking at my diaries over the past four years I found that I introduced more than 100 speakers at our public lectures (on topics from aerospace to zoology), chaired more than 80 Executive and Council meetings, attended about another 70 meetings representing the RSV, and so the list goes on.

All of this would not have been possible without a great support team. On the Executive I'd like to especially thank (Vice-President) Nicola Williams and her successor over the last six months, Rob Gell. I also appreciate the support of (Secretary) Peter Baines, (Treasurer) Andy Davison and (Immediate Past President) Bill Birch. I also thank all the Councillors who have been listed in our Annual Reports over the past four years.

I appreciate the massive amount of work undertaken by our CEO, Mike Flattley, Business Manager, James McArthur and Events and Function Manager, Malourie Crawford. There are many other staff who have worked for the RSV during my four-year term as your President and I thank them all.

Mike's leadership and work with the Executive and Council has been inspirational and taken us into new areas and activities that you'll read about in this report. I have deliberately not spoken about the programs, events and the RSV response to COVID-19 in 2020, which are detailed elsewhere in this report.

As I hand the RSV leadership baton to Rob Gell for the next two years (at least), I look forward to working with him and the Executive and Council.

I thank you, my fellow RSV Members, for the honour you have given me over the past four years to be your President. Let us all work together to continue contributing to promoting science in Victoria, something the RSV has undertaken for the past 167 years.

FUNDRAISING 2020

The Society gratefully acknowledges the following Members for their generosity (post-nominals omitted):

Dr Colleen Morris Mr Keith Dempster Ms Sophie Oakes Dr Murray Johns **Prof Sandra Rees** Mr Mat Shaw Dr Murray Littlejohn Ms Sarah Thyne Mr David Rees Lady Primrose Potter Mr Ewen Tyler The Hon Bill Forwood Mr Leon Costermans Ms Margaret Brookes Dr Jane Canestra Mrs Tessa Barrett Dr Thomas Mole Dr Nicholas Lomb Mr Peter Hogan Mr David Plant Dr Bram Mason Mr Peter Holbeach Ms Sally Clarke

We also acknowledge the thoughtful donations of the following supporters (titles omitted):

Helms Plumbing Australian Skeptics Gary Ruben **Dorothy McLaren** (Victorian Branch) Jane Brownrigg Joanna Towers Ema Corro **Peter Terry** Rachael Green Adrienne Sandow Jenny Tatchell Scilla Taylor **Margaret Brookes** Miss Nancy McNeill Fiona Murdoch Shane Butler **Geoff Wescott** Julie Ager Danae Killian Lynn Mowson **Toby Webb** Jay Dessi **Robert Laird** Komala Surman Jeremy Hill Jennifer Nilsson Thomas McGregor Suzannah Lyons Eliza Lamb Lynette Chambers Kate Barnard **Katherine Potter** Fay Ovenden David Platzer Megan Prance Ori Albert-Mitchell Matthew Woodhouse Yung En Chee Alyssa Goodman Matthew Blampey Matt Kelly **Christine Rees** Irene Lambiris J. Vaughan Johnson Matthew Kelly Arimbi Winoto Solonge Brave Megan Prance Miriam Zajac Sal Clarke Vaughan Johnson **Lotte Kronborg Christine Gray** Andrea Hinwood Peter Schwarzbauer Sarah Kirsch Victoria Jaeger Kathy Gibbs

Funds raised from members and supporters in 2020 totalled **\$37,283.58**. Of this, most funds were directed to the Society's highest priorities, with the remainder allocated as follows:

RSV Auspicees:

Bioquisitive: \$1,155

Fungi for Land: \$2,433

Science for All: \$154

Australian Indigenous Science Initiatives: \$1,036

The Society directed \$12,320 of funds raised to its awards and prizes: \$2,000 to bursaries in the **Science Talent Search** (STAV), \$6,000 directed to support our **Young Scientist Research Prizes**, \$3,000 to support the Phillip Law Postdoctoral Award and \$1,320 to cast the silver **RSV Research Medal**.

Thanks to all for generously supporting our endeavours.

THE HALL & GROUNDS

Due to COVID-19 pandemic lockdowns, we were only able to provide for 27 meetings on site during the year. The **Environmental Protection Authority Victoria** continued their lease on the former Bureau of Meteorology site to undertake air pollution monitoring activities. Science communication agency **Scientell** continued their lease of the large office upstairs, and **Eucalypt Australia** continued their lease of the Nancy Millis Room, both on a reduced rate during lockdowns. **GoGet Carshare** ceased leasing spaces in the RSV's car park during the pandemic lockdown period, however **Flexicar** has sustained their lease with the provision of a vehicle adapted for use by drivers living with physical impairments.

Revenues from the RSV's tenancies, venue hire and on-site event operations took a massive downturn in 2020

	2013	2014	2015	2016	2017	2018	2019	2020
Number of Meetings			362	353	358	370	243	27
Revenue from Tenancies & Venue Hire	\$158,918	\$184,571	\$164,546	\$189,147	\$190,388	\$211,725	\$249,301	\$22,883
Revenue from RSV Events				\$39,358	\$14,720	\$21,068	\$33,876	\$3,753
Total Venue & Events Revenue	\$158,918	\$184,571	\$164,546	\$228,505	\$205,108	\$232,793	\$283,177	\$26,636

ACKNOWLEDGEMENTS

The Society's thanks and appreciation are due to the organisations that contributed their valuable partnership and assistance to the Society's projects and aims during the year, notably:

Science into Action
Decibel Architecture
Essence Project Management
Round Consulting
CPR Consultants
Grocon

CITY OF MELBOURNE

The Council wishes to acknowledge with gratitude the continued maintenance of our grounds, made publicly accessible by the Society as part of the City of Melbourne's open space program.

ADMINISTRATION

Mr Mike Flattley, Chief Executive Officer

Mr James McArthur, Business and Facilities Manager

Ms Rena Singh, Inspiring Victoria Manager

Ms Malourie Crawford, Events & Functions Manager

Ms Catriona Nguyen-Robertson, Science Engagement Officer

Ms Meaghan Smith, Science Communications Officer

Our thanks to staff who completed their tenure with the Society in 2020:

Dr Renee Beale, Victorian Science Week Lead (with distinction)

Ms Fleur Kellenbach, Governance & Philanthropy Officer

This Report is approved by Council for presentation to Members at the Annual General Meeting to be conducted Thursday 13th May, 2021.

David Zerman, President

2019 ANNUAL GENERAL MEETING

The 163rd Annual General Meeting was convened on 14th May, 2020.

Councillors Dr Jane Canestra, Dr Catherine de Burgh-Day, Dr Kevin Orrman-Rossiter, Dr Sophia Frentz and Dr Gavin Smith were inducted for a two-year term as Ordinary Members of Council at the AGM.

The Annual Report and Financial Statements for 2018 were received and adopted.

FELLOWS

The Society was delighted to appoint **Professor Pauline Ladiges AO**, **Dr Tom Beer**, **Professor Jenny Graves AO** and **Dr Peter Thorne AM** as our 2020 Fellows in recognition to their long service to the Society and its aims and mission to promote the sciences. Due to the pandemic, their induction has been delayed pending a visit to Government House in 2021.

RESEARCH MEDAL

Mr D. Zerman (Chair), Mrs N. Williams, Mr R. Gell, Dr W. Birch, Dr P. Baines, Mr A. Davison

Following the input from of an independent panel of assessors on submissions received, the Executive Committee was pleased to recommend to Council that **Professor Bronwyn Fox** be awarded the Royal Society of Victoria's Medal for Excellence in Scientific Research in **Category IV: Physical Sciences**. In the Medal's 61st year, the presentation to Professor Fox was made by the Society's Patron, the Governor of Victoria in a remarkably auspicious online ceremony. Our Medallist then presented her work to the Society in a lecture titled "Scaling Australian Manufacturing through Digital Platforms."

David Zerman, Chair



FROM THE CEO Mr M. Flattley

To say "2020 was quite a year" is a preposterous understatement. Even by February, we'd noticed a marked reticence by audience members to turn up to (socially-distanced) live events in light of the COVID-19





pandemic unfolding overseas; by the end of March, Melbourne was in lockdown and our staff were making hurried transitions from the workplace to our home offices. I grabbed a PC, a couple of computer monitors, a webcam and an RSV pull-up banner with a hastily-contrived plan to create a "broadcast studio" from my own "home-office" – a DIY kit desk in a reclaimed corner of the multi-functional family room I continue to

share with my resident, beleaguered VCE student. Other RSV staff were in a similar boat – I recall our Event Manager, **Malourie Crawford** begging, borrowing and stealing her primary-school-aged kids' tiny laptops and iPads to beam herself into our new daily video-conferencing routines, which extended to running online webinars and forums for hundreds of people as the year marched on and we adapted to new ways of working and engaging. 12 months later, it's hard to imagine we'll ever work the same way again.



The Royal Society of Victoria has a grand old name and a tiny resource base; we sustained a core group of four human beings on the payroll throughout 2020, all of us part time, while our Officers and Councillors are remarkably dedicated volunteers. Yet through our collective efforts in event hosting, partnerships, collaborations, grant making, service provision, fundraising and embracing the new platforms provided to all of us through online tools, we've managed to build a vibrant, state-wide program of community science engagement, reaching tens of thousands of Victorians and hundreds of senior government colleagues, showcasing and translating the remarkable work of dozens of Victorian scholars with expertise across the sciences and beyond. **Rena Singh** started out with us in March as our new Manager of the Inspiring Victoria



program, and it's fair to say she's scarcely set foot in our building since; yet the program has grown, the partnerships have deepened, and the engagement has broadened. Much of this is down to our ability to make decisions quickly, take calculated risks and try new things — a function both of our small size and the courage of all concerned. It's also an outcome of aligning with some remarkable partners in the community, government and business sectors.

Meanwhile, Melbourne's CBD lay deserted, along with our own site and headquarters at 8 La Trobe Street. More than ever before, we've relied on the constant, vigilant presence of our Caretaker, James McArthur and his family to care for our heritage site. While you'd imagine the loss of city traffic that typically accosts the Caretaker's Cottage

from all sides would have offered a peaceful respite for James and family, they have in fact endured great disruption during the boisterous construction of the Sapphire on the Gardens and Shangri-La Hotel twin towers directly opposite the RSV's site on La Trobe Street: constant excavation, roadworks, and construction are a feature of daily (and nightly) life at the Cottage. My gratitude to James, Amanda and family for enduring this extended, local disturbance in the context of a vast, global disruption.

Our casual staff were the most vulnerable in our organisation to the fallout from the pandemic – with the evaporation of our venue hire and events management business, many of our staff lost their shift work with the RSV. Happily, the Commonwealth Government's JobKeeper program has offered several of our casuals a much-needed lifeline, and I must once again thank James, as our Business Manager, for keeping on top of the various grant and taxation programs designed to provide relief to our much-valued colleagues and friends.

It's a year on – we know we're all "Zoomed out," yet we're unable to resume business-as-usual for the time being, so we persevere with our adaptive strategies and online presence. With the end of the JobKeeper program in April 2021, the RSV joins many small businesses in confronting an uncertain future; our disappearing venue hire and event management business previously sustained the small staff base that enables us to fulfil our mission to promote the sciences in Victoria. So, we are required to take stock of our in-house expertise to provide new service offerings, and to recognise the value of our strong networks of members, partners and connections throughout the Victorian science community in helping communities, governments and industries confront and adapt to the challenges of our times. We know this pandemic is just the beginning of decades of disruption and adaptation in the face of global climate change and biodiversity loss – "may you live in interesting times" – and I consider the RSV has a very valuable role to play in helping all of us to navigate these waters to win sustainability for our ecosystems and economic activity, resilience for our health systems and supply chains, and growth for our technical abilities and social wellbeing.

This year has been the last for an Executive Committee that has been at the helm for the past four years, and I'd like to record my very fond gratitude to Mr David Zerman, Mrs Nicola Williams, Mr Rob Gell, Mr Andrew Davison, Dr Bill Birch and Dr Peter Baines for their courageous leadership, guidance, support and camaraderie through a time of great change and challenge for the RSV – it's been a wild time for those of us with a hand on the tiller! My thanks also to our Councillors - Dr Jane Canestra, Professor David Walker, Ms Pamela Borger, Associate Professor Rob Day, Dr Catherine de Burgh-Day, Dr Gavin Smith, Dr Sophia Frentz, Dr Kevin Orrman-Rossiter and Dr Viktor Perunicic – who have been steadfast in their engagement with our many initiatives, providing clarity, wisdom and sustained enthusiasm for our mission throughout the challenging business of governing one of the most ambitious, complex yet underfunded institutions I think you'll ever encounter.

To all our members, supporters and partners – thank you for sticking with us as we've navigated these twists and turns. I know it's been a tricky year for all of us, and I'm particularly mindful of the great disruption experienced by our colleagues based at tertiary education and research institutions. The challenges are far from over, but I hope you're starting to get a feel for "COVID-normal," and are up for the adventure facing Victoria's science community in the months and years ahead.

Mike Flattley, CEO



SCIENCE PROGRAM

Dr K. Orrman-Rossiter (Chair)

2020 Lecture Series

The RSV has been presenting a program of engaging public lectures on a wide range of scientific topics of interest and relevance to Victorians since our foundation, 166 years ago. With the sustained lockdowns we experienced in our state in response to the COVID-19 pandemic, it seemed this tradition was to be rudely interrupted, but fortunately we were able to embrace the

technology at our disposal to begin presenting our speakers in webinar formats via Zoom and Facebook Live: at first by pre-filming our speakers under highly controlled conditions in the RSV's Cudmore Library and then, when conditions worsened, simply conducting everything via Zoom: pre-filming, screening and live discussions. It was a testament to our staff, speakers and members that the program was sustained,

and actually expanded its audience with the barriers of distance effectively removed for our regional and interstate participants. We had a wonderful line-up of speakers and topics to enjoy throughout the year, many professionally filmed and delivered to audiences through the welcome support of and partnership with the Inspiring Victoria program. The majority of these are termed the "Ordinary Meetings" of the RSV's membership, with many others convened as special events, often in partnership with or the support of aligned organisations and groups.

2020 "Ordinary Meetings" of the Royal Society of Victoria

13 February: Weather Intelligence: Supporting Victoria's State

Control Centre



Mr **Kevin Parkyn,** Senior Meteorologist at the Bureau of Meteorology.



27 February: Diamonds: An Implant's Best Friend



Associate Professor **Kate Fox**, a biomedical engineer from the School of Electrical and Biomedical Engineering at RMIT University.



12 March: Sustainable Solar Energy through Exciton Control



Featuring Dr **Wallace Wong**, a Senior Lecturer with the School of Chemistry at the University of Melbourne and a Program Leader at the ARC Centre of Excellence in Exciton Science, our event partner.



26 March:



AQFx – an Australian Smoke Forecasting System

Dr **Martin Cope**, Principal Research Scientist at CSIRO's Climate Science Centre.



30 April: From Wolfe Creek to Tunguska: Meteorites in Cultural

Traditions



Featuring Dr **Tyson Yunkaporta**, a Senior Lecturer in Indigenous Knowledges at Deakin University, and Associate Professor **Duane Hamacher**, a Cultural Astronomer based with the School of Physics at the University of Melbourne.



25 June: Writing on Stone: Graptolites and Ancient Ground



The 2020 **Howitt Lecture**, featuring Mr **Alfons VandenBerg**, Research Associate with the Department of Sciences at Museums Victoria, presented with the Geological Society of Australia (Victoria Division).



23 July: Climate Change: Managing the Unavoidable, Avoiding



the UnmanageableProfessor **David Karoly**, Leader of the Earth Systems and Climate Change Hub based with the CSIRO National Environmental Science Program.



17 August:



Young Scientist Research Prizes: 2020 Competition and Prize Ceremony
Mr Hayden Dalton (University of Melbourne), Ms Megan Withers (Monash
University), Ms Charlene Trestrail (RMIT University), Mr Martin Estermann
(Monash University), Mr Majid Laleh (Deakin University), Ms Adele Goodwin
(Monash University), Mr Roshan Selvaratnam (Monash University), Ms Lakshanie

Wickramasinghe (Monash University)



15 October: Artificial Intelligence or Artificial Stupidity? Diversity, Inclusion and AI in our Post-COVID **Future**

> Featuring Dr Muneera Bano, a Senior Lecturer in Software Engineering at Deakin University.



22 October: Spinning Yarns



Mrs Nicola Williams, RSV Vice-President and Oertling Balance collector, Dr Catherine de Burgh-Day, Councillor of the RSV and Research Scientist with the Bureau of Meteorology, Mr Rob Gell AM, Councillor of the RSV and Director of ReThink Sustainability, Professor David Walker, RSV Councillor and NDHD Researcher with the RMIT School of Health and Biomedical Sciences.



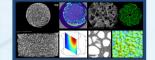
12 November: Soil Carbon: Climate Solutions Right Under our Feet



Featuring Dr Samantha Grover, Lecturer in Environmental Chemistry at RMIT University and President of the Victorian Chapter of Soil Science Australia, our event partner.



26 November: Inspired by Nature: Engineering Multifunctional Materials



Dr Nisa Salim, Vice-Chancellor's Initiative Research Fellow, Swinburne University of Technology



(Phillip Law Postdoctoral Award Lecture)

10 December:

Scaling Australian Manufacturing through **Digital Platforms**



Professor **Bronwyn Fox**, Deputy Vice-Chancellor (Research & Enterprise), Swinburne University of Technology (RSV Research Medal Lecture)



Joint Presentations & Panel Sessions



From top left: Professor David Karoly, Mr David Zerman and Dr Alexander Gosling AM for ATSE.

Fascinating joint lectures included our enduring collaboration with the Australian Academy of Technology and Engineering, this year hearing from: the Lead of the Earth Systems and Climate Change Hub at CSIRO, our 2016 Research Medallist Professor **David Karoly**, laying down the hard facts of the changes in store for the planet in "Climate Change: Managing the Unavoidable, Avoiding the Unmanageable;" the annual Howitt Lecture with the Geological Society of Australia Inc (Victoria Division) featured the work of Mr Alfons VandenBerg (Museums Victoria) on "Writing on Stone: Graptolites and Ancient Ground;" a presentation from physical chemist Dr Wallace Wong on "Sustainable Solar Energy through Exciton Control," presented with the ARC Centre of Excellence

in Exciton Science; and an exploration of soils and their capacity to sequester carbon from Dr Samantha Grover titled "Soil Carbon: Climate Solutions Right Under our Feet," presented in partnership with Soil Science Australia.

Two fascinating panel sessions were convened this year: one on "Meteorites in Cultural Traditions," featuring Dr Tyson Yunkaporta, a lecturer in Indigenous Knowledges with Deakin University and Associate Professor Duane Hamacher, a cultural astronomer with the University of Melbourne; and a rare exploration of the career/life journeys of four RSV Councillors - Mrs Nicola Williams, Dr Catherine de Burgh-Day, Mr Rob Gell and Professor David Walker – coming to us from lockdown for "Spinning Yarns."

The Young Scientist Research Prizes

Our annual YSRP competition was held on 19th August, once again as part of **National Science Week**. Open to students in the final year of their PhD candidature, in 2020 there were 43 entries across all four categories: Biological Sciences (non-human); Physical Sciences, Earth Sciences and Biomedical & Health sciences.

We are most grateful to our colleagues with requisite disciplinary expertise who acted as assessors for the short list and joined the judging panel on the night of the final. Thanks go out to Kevin Orrman-Rossiter, Nicola Williams, Robert Day, David Walker, David Zerman, Bill Birch, Gavin Smith and Viktor Perunicic for assisting us with this challenging yet rewarding work.

Two finalists from each category presented pre-filmed, 10-minute talks to an audience of family, peers, supervisors and RSV members. The first prize winners were each

VCDD Fine lists with assessors from top loft. Dr. Cavis Seeith

YSRP Finalists with assessors, from top left: Dr Gavin Smith, Mr David Zerman, Mrs Nicola Williams, Mr Majid Laleh, Dr Viktor Perunicic, Mr Mike Flattley, Mr Martin Estermann, Dr Bill Birch, Dr Kevin Orrman-Rossiter, Mr Hayden Dalton, Mr Roshan Selvaratnam, Ms Megan Withers, Ms Lakshanie Wickramasinghe, Ms Charlene Trestrail, Ms Adele Goodwin, Professor David Walker

presented with two years' membership of the RSV, prize money of \$1,000 and a prize certificate by our President, Mr David Zerman.



Biological Sciences (non-human):

First Place: **Charlene Trestrail** School of Science, RMIT University

"Foaming at the mouth: how eating floral foam microplastics harms animals' health."



Second Place: Martin Estermann

Department of Anatomy & Developmental Biology, Monash University

"Cellular origin and developmental complexity of embryonic chicken gonads revealed by single cell transcriptomics."



Physical Sciences:

First Place: Adele Goodwin

School of Physics & Astronomy, Monash University

"On the nature of neutron stars in accreting systems."



Second Place: Majid Laleh

School of Engineering, Deakin University

"Microstructure and Localised Corrosion Characteristics of Additively Manufactured Austenitic Stainless Steel."

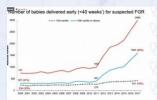


Biomedical and Health Sciences:

First Place: Lakshanie Wickramasinghe

Faculty of Medicine, Nursing and Health Sciences, Monash University

"Granulocyte Colony-Stimulating Factor: A new target in neonatal lung disease."



Second Place: Roshan Selvaratnam

Department of Obstetrics & Gynaecology, Monash University

"Full Steam Ahead? The unintended harm of detecting fetal growth restriction."



Earth Sciences:

First Place: Megan Withers

School of Earth, Atmosphere & Environment, Monash University

"Investigating the development of the Marlborough Fault System, by recreating a tectonic plate boundary in a sandbox."



Second Place: Hayden Dalton

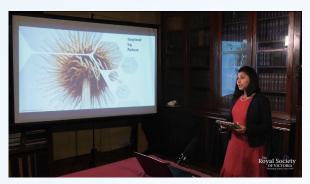
School of Earth Sciences, The University of Melbourne

"Temporal and Geochemical Evolution of Kimberlite Magmatism in Finland."

Our second prize winners each received prize money of \$500, a prize certificate and two year's membership of the Society. Our thanks once again to the Committee members, assessors and judges for their support and input, and the CEO and staff for their considerable work in administering the Awards and bringing our lecture program to fruition.

The Phillip Law Postdoctoral Award for the Physical Sciences

The award (\$3000), for postdoctoral candidates within the first seven years of the conferring of their PhD, is made possible by the generous bequest of Dr Phillip Garth Law, a former President of the Society and Director of the Australian Antarctic Division. Fifteen eligible candidates were judged by a panel convened by Dr Kevin Orrman-Rossiter, further comprising Mrs Nicola Williams, Dr Catherine de Burgh-Day and Dr Viktor Perunicic, to whom we are most grateful. 2020's winner was Dr Nisa Salim (Vice-Chancellor's Initiative Research Fellow, Swinburne University of Technology), who delivered an excellent presentation to us titled "Inspired by Nature: Engineering Multifunctional Materials."



Dr Nisa Salim presenting her work to the Society in the Cudmore Library.

We thank all our speakers for the time and effort that they put into their presentations in 2020 and the opportunity that it affords us to stay informed of the research being undertaken in Victoria, Australia and around the world. In broadcasting our lectures online, we bring a far greater audience engagement with our speakers, aiming to augment the reputation of Victoria's outstanding scientists and the public profile of their work — we are always delighted to hear of our speakers going from strength to strength following their engagements with the Society.

Dr Kevin Orrman-Rossiter, Chair

2020 Special Events

Supplemental lectures, cultural events and partner presentations



Through the efforts of RSV Councillor Dr **Sophia Frentz**, the RSV extended its support to **Queers in Science** to host our first joint lecture series, making visible the outstanding work of scholars who identify as members of the LGBTQIA+ community, coinciding with the annual Midsumma Festival held over January and February.

16 January: Exploding Binaries: Stars and Gender



Theoretical astronomer Associate Professor Jan J Eldridge introduced us to the nature and evolution of binary stars, while relating their journey as a non-binary identifying



person along the way.

6 February: The Biology of Sexuality and Gender



Biological scientist Professor Andrew Barron and clinical practice researcher Dr Riki Lane joined us to share insights to the complicated nature of the human animal's behaviours and sexuality, and the rich





complexity of how gender is expressed in our species.

3 April: Climate Change in Australia and Demystifying the IPCC



This lecture commemorated the life and contribution of the late, great Dr **Penny Whetton** (pictured right, 1958 – 2019), a lead author to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), which was awarded the Nobel Peace Prize in 2007. Penny was a valued



member of the RSV and a trans woman who underwent gender affirmation in 2003.

Geologist Dr James Driscoll MRSV and climate model developer Dr Chloe Mackallah joined forces to explore the science of climate projections, the implications for the Australian continent, and demystify the process that takes us from securing scientific results through to the publication of IPCC reports.







9 July: "Imagine a World" – Postcards from the Pandemic



As a part of the Inspiring Victoria program, the Society partnered with science communication













living in our world many years from now. Featuring Alicia Sometimes (MC), Dr Colleen Boyle (RMIT University), Dr Jenny Gray MRSV (Zoos Victoria), Professor Rachel Webster MRSV (University of Melbourne), Professor Julie Arblaster (Monash University), with contributions from Kate Phillips (Museums Victoria).



As the convenor of National Science Week in Victoria, the RSV hosted a number of special events as a contribution to the "Possible Impossibles" major event series curated by **Dr Renee Beale**.

20 August: Our Resilient Future



As an adjunct to the 2020 **Future Thinking Forum** (a closed, Chatham-House symposium with government colleagues), the RSV reframed the Forum's scientific presentations for a public symposium delivered via Facebook Live, co-presented by RSV CEO **Mike Flattley** in





partnership with Dr Anthony Boxshall from Science into Action. Presentations



biodiversity management (Professor **Brendan Wintle**), mapping the current and future rate of change in agricultural activity across the state in response to a changing climate (Professor **Richard Eckard**), preparing

for the transition of the water sector in a drying climate (Dr **Briony Rogers**) and, most importantly, building community agency for all the knowledge, ideas and solutions canvassed (Professor **Sarah Bekessy**). Community inputs on key priorities for action were gathered during discussion and through use of online polling instruments, with the data informing the final report to government partners of the Future Thinking Forum to test and challenge our assumptions.

21 August: Brewing Futures



For National Science Week, the RSV worked with **Jon Seltin**, Head Brewer from the Brick Lane Brewing Co., to wind the clock forward on the ancient art of beer brewing. Kits were dispatched to



and put their tastebuds to the test as Jon challenged us our tastes to adapt as, indeed, they may well need to in order to keep pace with the effects of our changing climate

as, indeed, they may well need to in order to keep pace with the effects of our changing climate on key ingredients.

22 August: Let's Torque - Grand Final



Our next Science Week outing featured our continuing partnership with the Let's Torque STEM Undergraduate







Public Speaking Competition. The competition moved into another gear this year, with training modules on "presenting to camera" joining the to-do list for the management team in helping our competitors grapple with the online medium. Led by **Meaghan Smith**, the team convened a sparkling judging panel in Dr **Jenny Martin**, Professor **Alan Duffy** and Ms **Alanta Colley** and livestreamed proceedings via Zoom and Facebook Live to engage a large audience of undergraduate students and friends.

23 August: Possible Impossibles: Online Forum



The Possible Impossibles online forum was live-streamed by the Parliament of Victoria and the Royal Society of Victoria, with ABC's award-winning science

journalist, Natasha Mitchell, hosting the event. She spoke with four scientific leaders in the fields of new technologies (Professor Elizabeth Croft, medical science (Dr Kudzai Kanhutu), environmental science (A/Professor Julie Mondon) and space exploration (Dr Gail Iles) to discuss the role of science in shaping our lives in a post COVID-19 future. Questions from secondary



From top left: Ms Natasha Mitchell, A/Professor Julie Mondon, Professor Elizabeth Croft, Dr Gail Iles, Dr Kudzai Kanhutu.

students and Facebook viewers followed presentations, fuelling further discussion on the ethics of scientific practice and a responsibility for politicians to partner with researchers to ensure progress keeps pace with culture, while informing evidence-based policy making.

2 December: State of the Climate 2020



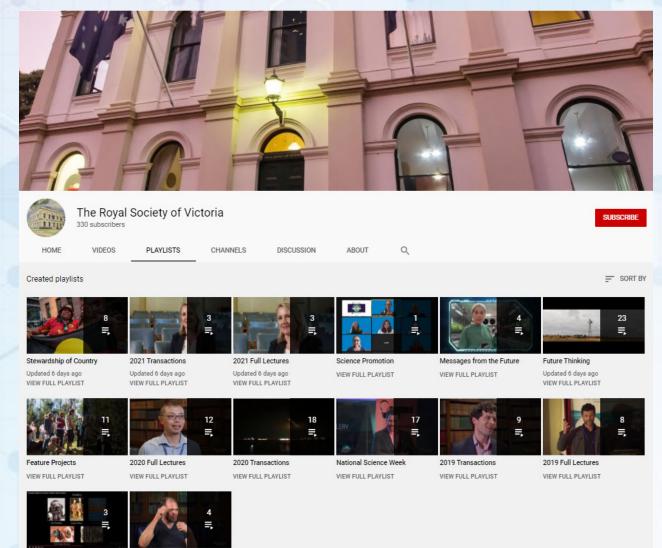
A presentation on the sixth iteration of the biennial *State of the Climate* report, featuring Dr **Lynette Bettio**, Senior Climatologist with the Bureau of Meteorology. Presented in partnership with the Victoria Departments of Environment, Land, Water & Planning and Jobs, Precincts & Regions to



inform the policy response by the Victorian Government.

Outcomes:

Taking our lecture series online has offered a positive result from a negative situation during the pandemic, particularly the practice of live streaming our Zoom webinars via Facebook Live to reach many thousands of viewers — particularly once the event has ended and the video is shared. All presentations now inform an archive on our Facebook page and web site. Many videos were filmed professionally as a contribution to the Inspiring Victoria program and inform the archive at the Society's YouTube channel, also featured on our web site and social media channels.



MEMBERSHIP & MENTORING

Dr S. Frentz & Dr G. Smith (Co-Chairs)

In 2017 the Membership and Mentoring program was launched to focus on ensuring the sustainable growth of the RSV and, in particular, support for younger members of the Society.

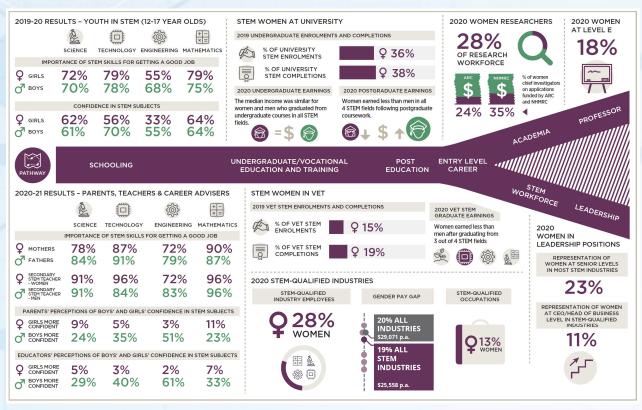
Despite efforts to reflect the diversity of our broader community in our programming and leadership, we note a continued loss of diversity in our membership. Overall numbers contracted, with many student members not renewing, following a general form exacerbated by the COVID-19 pandemic and its financial impacts on the university student cohort, particularly international students. Our numbers at the end of the year were down to 509 members from 588 in 2019. Our average age rose from 59 to 61 years. Our gender ratio skewed further towards an overwhelmingly male representation, suggesting youth membership is the key contributor to parity in gender representation. The only encouraging sign of change is in those members identifying as being from a Cultural And Linguistically Diverse (CALD) background, which rose from 5.95% to 8.51% of our total membership.

2018 Full Lectures

2018 Transactions

We work to secure a more diverse membership by seeking visible diversity within our leadership, speakers, membership, staff and programs, and being vigilant in supporting and engaging people with different backgrounds and experiences to the majority of RSV members. To see this translated into the membership mix, it is clear we will need to do more; whether through more active recruitment, or through identifying other relevance factors that are yet to be satisfied for the broader scientific community – likely, both.

However, we also need to consider our context within the broader gender diversity effort within the scientific education and research workforce. The Australian Government's 2021 STEM Equity Monitor report (infographic below) reveals girls and young women in secondary schooling overwhelmingly rate the attainment of STEM skills highly in regard to securing "good" future work – yet women represent only 38% of undergraduate STEM course completions, earned less than men in STEM fields following postgraduate coursework, and comprise only 28% of the research workforce (those applying for grants as chief investigators through the NHMRC and ARC). Women in leadership positions comprise 18% at professorial level E, 23% of senior management in STEM industries and only 11% at the CEO or equivalent levels of same. In all, the numbers are frustratingly similar to our own.



Council is actively discussing membership fees in 2021 and whether these will require a reduction to lower barriers to participation. This is a difficult consideration in light of our financial circumstances.

Membership 2020

Council has discussed membership issues at all meetings. Our membership continues to experience a high turnover, particularly from earlier years' applicants for the Young Scientist Research Prizes. Establishing and maintaining relevance for our younger members remains a key priority, as does the involvement of women in membership and leadership.

Changes to Membership	2014	2015	2016	2017	2018	2019	2020
Total Individual Membership	604	561	587	639	742	588	509
Gender Ratio			30:70	33:67	34:66	30:70	28:72
(Women and non-binary : Men)							
Average Age (years)			57.1	57	54.4	59	61
Culturally and Linguistically Diverse Background (%)						5.95	8.51

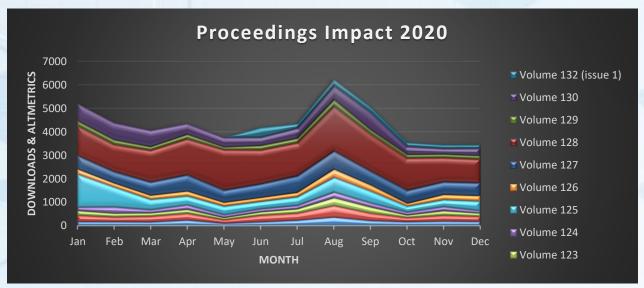


PUBLICATIONS, RECORDS & COLLECTIONS

Dr W. Birch AM (Chair), Dr T. Darragh, Dr D. McCann

Due to COVID restrictions in 2020, the only aspect of our work that made progress was the journal. Volume 132 of the Proceedings of the Royal Society of Victoria was successfully published online with CSIRO Publishing. While we had half-expected to receive more papers than usual, at least towards the end of the year, due to potential authors being locked down with more time to write, this didn't eventuate, and only five papers were published for the volume.

With members and the general scientific community able to download all the papers, we are printing a limited number of hard copies and doing so at the end of the year, rather than half-yearly. Once again, I wish to thank our copy editor, **Barbara Vaughan**, for her excellent work on the journal, and **Stuart Anderson** for providing us with high quality print copies.



- Dr Bill Birch, Chair

Publicity, Media & Public Relations

While it is difficult to quantify the profile and standing of an organisation, the digital age is providing many valuable tools for measuring the impact of promotions, events and news in the public realm. Both traditional 'print' media and new social media channels offer opportunities for quantifying impact. Overall, the pandemic has plainly affected the RSV's performance in this key area of community science engagement during the course of 2020.

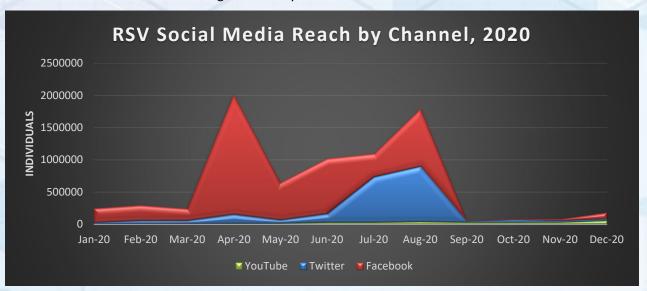
Social Media

Social Media is a messy and unpredictable place, purely because it's driven by humans with or without filters. Its power is to provide a science engagement organisation with a direct connection to audience members on a massive scale, and its peril is to enter an unmoderated contest of ideas where the rules are extremely fluid and subject to the whims of zeitgeist, political acrimony, phases of the Moon and the unfortunate propensity for human collectives to resort to shaming and ridicule in a bid for moral or ideological dominance. During the heightened anxiety of a global pandemic, this was a particularly volatile place to work over the past year, and there are few signs of this abating. The "Black Lives Matter" movement gained particular strength both in the USA and here in Victoria, with the astonishingly high number of deaths of African American people through police violence translating into a resurgent outcry over Aboriginal Deaths in Custody here in Australia. As I write this in 2021, the Brittany Higgins affair has turned the Australian political class on its head and invited much-needed scrutiny of the conduct of men and the safety of women in our workplace cultures.

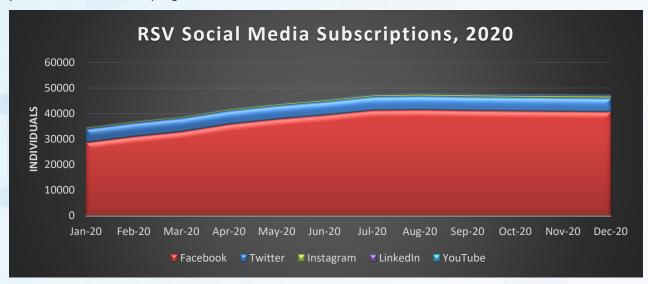
The RSV's interaction with Victoria's science community and the broader public continued through social media channels **Twitter** and **Facebook**, with our **Instagram** account continuing to build a subscription base. Our **YouTube** channel continued to share high-quality video from our talks and events with our members and supporters.

These channels have helped the RSV reach "organic" audiences without recourse to expensive print advertising or reliance on "newsworthiness" through traditional media channels – our content is delivered directly to people who profess an interest and their broader social and professional networks. This has been particularly helpful in communicating our events, news, awards, award winners and significant position statements on current affairs in Victorian science.

The charts that follow tell something of the story:



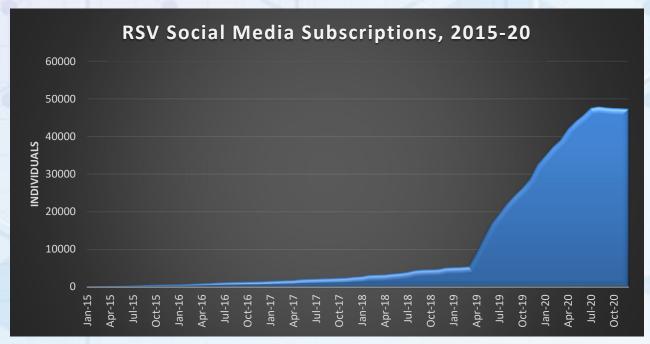
The chart above represents the number of individuals to whom an RSV news item was delivered over the course of the year. Compared to earlier years, audiences on both Facebook and Twitter have responded particularly well to two things: one, the publicity surrounding the Society's promotion of **National Science Week** leading up to August and; two, the global sharing of the Society's professionally filmed videos of key presentations from our program.



According to Social Media Statistics Australia, approximately 16,500,000 Australians were actively subscribed to **Facebook** as of December 2020, up 1.5M on the previous year. While the platform's multifunctionality makes it a valuable engagement platform, it's fair to say the open warfare with the Australian Government and closure of "news" sites has soured the relationship for many. Meanwhile, **YouTube** enjoys a similar status and looks set to overtake Facebook in terms of Australian subscribers.

The chart above represents growth in the RSV's subscriptions, or active followers of our social media feeds over the course of the year. Our followers are the main source of impact for our stories and news items, as these are people who "like" or "share" our content to a broader network of friends, family and colleagues. The trend over five years from just over 100 total subscribers to under 50,000 at the end of 2020 reflects a recent, concerted effort to secure wider audiences in support of National Science Week and the Inspiring Victoria program.

Viewed in isolation, 2020 looks like mild growth tapering off midyear; however, when viewed against the 6 year progress (overleaf), it's clear the investment in paid advertising in support of the Inspiring Victoria Program (which ended in mid-2020 to conserve resources) has been instrumental in transforming our audience base.

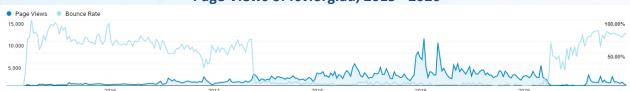


While local audience share remains less than Facebook's, **Twitter's** 5.8M active Australian users represents growth of 9.4% during 2020, and include many scientists and science proponents, providing a terrific platform for communication and alignment with the science community at home and abroad. The RSV's "reach" through Facebook has again outpaced Twitter's in 2020, although the impact of paid advertising for the Inspiring Australia program is actually comparable; "organic" reach is essentially on par, which favours Twitter's efficacy with a smaller user and subscription base. 2020 marked the third year using **Instagram**'s platform based on its 2017 growth to 9M active Australian users, which has since remained static; our subscription base has grown to about 736, enough to start looking visible on the charts against the much larger audience base of Facebook and Twitter.

While our new **YouTube** channel continues to be excellent for hosting our high-quality videos for further sharing via Facebook, Twitter and our website, our subscription base via that channel remains very small at 232. I consider there's untapped potential here, particularly given the high quality of the content.

RSV Website





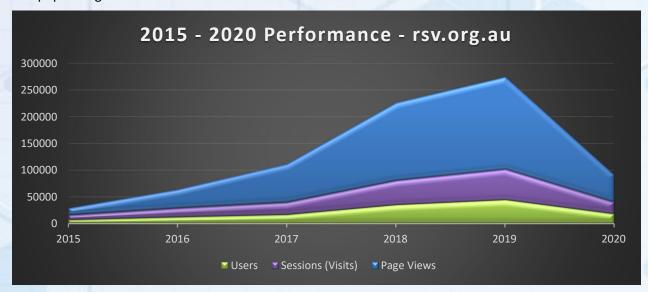
We've been tracking our website usage data through Google Analytics for some years now. Generally our website has been an "online brochure" to inform others of our history, role and purpose, but has also been

a platform to showcase upcoming lectures and events and, increasingly, post articles reviewing and reflecting on these – a modern channel for what has traditionally been referred to as our "Transactions." The creation of content from our presentations and programs has been of a very high standard in 2020, yet the quantity has reduced along with our program's smaller offering during COVID conditions. My thanks to the outstanding efforts of RSV science engagement officer Catriona Nguyen-Robertson (pictured right), with welcome input from Priya Mohandoss.

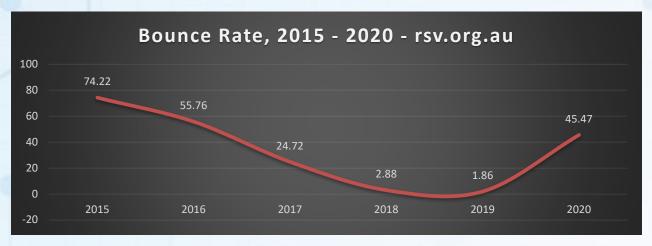


Our investment in capturing and editing professional video footage of our lectures, along with interview material featuring our speakers, has created high-quality material for sharing online with members and supporters. The graph below shows the steady growth in audience engagement with our website's content up to 2019, when we welcomed a total of 35,000 users to our website for a total of 46,000 visits, viewing

individual RSV pages/posts 145,000 times. However, 2020 was a much slower year – our efforts were placed in learning and rolling out new methods of event management online, rather than promoting the content, and populating our website.



The graph below shows the "bounce rate," or the number of visitors who viewed only one page on our website without looking around at other content. Essentially, a low bounce rate is "good," and it appears we've lost some of the hard-won interest of our readership during the manifold distractions of COVID. Back to work!



Traditional & Digital Media

Following an unprecedented impact in 2019, the RSV maintained a more muted presence in traditional news media during 2020 for a range of reasons; COVID, certainly, but also noteworthy was the widespread closures of regional and suburban newspapers.

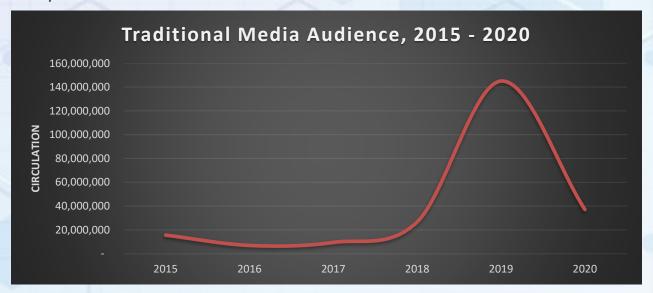
In terms of our core activities and mission, mentions were generated through publicity for the Inspiring

Victoria and National Science Week programs, a partnership with ABC Radio National and the ABC Science team in producing content for the Ockham's Razor show presented by Robyn Williams AM, and support for various citizen science programs in Victoria. However, the global impact of the RSV continued thanks to the interest garnered in two successive editions of the Proceedings of the Royal Society of Victoria, in particular the enduring international interest in

OUTLET	DATES	AUDIENCE REACH/CIRCULATION
ABC RADIO NATIONAL	4 dates for Ockham's Razor	2,444,000
THE GUARDIAN	26 January, 2020	3,100,000 (print) 24,000,000 (online)
THE IRISH TIMES	8 April, 2020	286,000 (print) 689,000 (online)
JACOBIN MAGAZINE	9 April, 2020	3,600,000 (online)
ABC NEWS ONLINE	5 September, 2020	2,506,363
GEELONG ADVERTISER	20 November, 2020	141,000 (print) 279,600 (online)
	Total 2020 Audience Reach:	37,045,963

the Moyjil site at Warrnambool.

Drawing on 2020 circulation metrics published by each media outlet and ethnic population data published by the ABS, we are able to approximate the impact of traditional journalism concerned with the Royal Society of Victoria.



Direct Mail & Online Event Registration

COVID rendered the humble mailout of hard-copy materials impossible in 2020, and we relied entirely on email for communications to members and supporters. Our email subscription base (mailing list) with MailChimp, which enables the RSV to segment our mailing list, targeting different audiences according to the matter at hand. There were 4985 mailing list subscribers as of December 2020, down from 5688 as of December 2019. Response to RSV newsletters and bulletin emails has been consistent, yet not as strong

against the remainder of the non-government organisation sector, averaging a 20.7% open rate (30.8% for the sector) and a 4.0% click rate (4.2% for the sector). A solid mailing list is a very hard line to hold, with crowded inboxes overwhelming many subscribers, but it was a delight to welcome RSV science communications officer **Meaghan Smith** to the team in the second half of the year to help us compile, edit and publish our monthly newsletters, which have certainly taken a much more stylish turn!



Mike Flattley, CEO



SCIENCE POLICY & COMMUNICATIONS

Dr P. G. Baines (Chair), Dr W. D. Birch, A/Prof. R. Day, Prof. R. M. Gleadow

The RSV maintains a standing file of Policies that it advocates, in the interest of Australian Society in general, and Science in Australia in particular

In light of a truly catastrophic fire season that has since ravaged Victoria's forests and their attendant wildlife, we hope these measures offer some reassurance that we are making a genuine difference to the survival of our indigenous plants and animals through our collective efforts as a

Society and a community of scientists.

The contrast between early 2020's catastrophic fire season, which was strongly influenced by the Indian Ocean Dipole, and the much cooler summer that we have just had, which can be attributed to the La Nina event in the Equatorial Pacific Ocean, is ongoing confirmation that we now understand the science of what causes the weather, and increasingly, the climate, much better than we did just decades ago.

We know that global warming is likely to make these events more extreme in future. The impact of these severe events on our native animals can be devastating, and they deserve our protection as much as possible.

Dr Peter Baines, Chair

The 2020 Future Thinking Forum



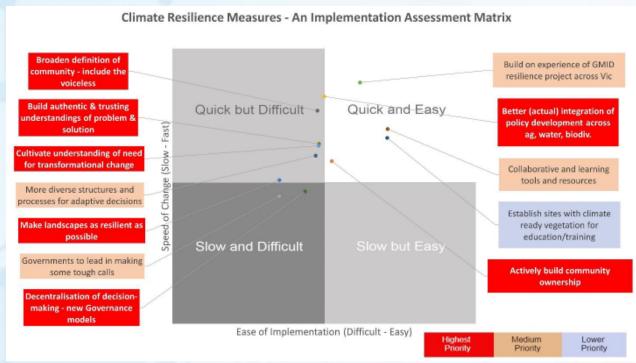
Over July, August and September 2020, the RSV convened the second Future Thinking Forum with colleagues from the Victorian public service, local governments, traditional owner corporations and key research institutions, working in partnership with **Dr Anthony Boxshall** (pictured right) from science translation agency **Science into Action**. With more than 33 organisations involved, spanning 6 regions of Victoria "beaming in" from the traditional lands and waters of 12 different Indigenous groups, the Forum





engaged with climate change adaptation policy makers based at the Victorian Departments of Jobs, Precincts and Regions (DJPR), and Environment, Land, Water and Planning (DELWP). We paired policy leads in Water, Agriculture and Biodiversity — the "problem holders" — with scientists with disciplinary expertise in the same domains, helping our public servants to prepare for the difficult decision making using the valuable tools at hand from the research endeavour.

Proceedings included presentations, break-out workshops for refinement of ideas, and extensive polling on recommended initiatives to map their relative priority and capacity to help us either persist, adapt or transform Victoria's relationship with and management of its ecosystems and primary resources.



Overall Summary

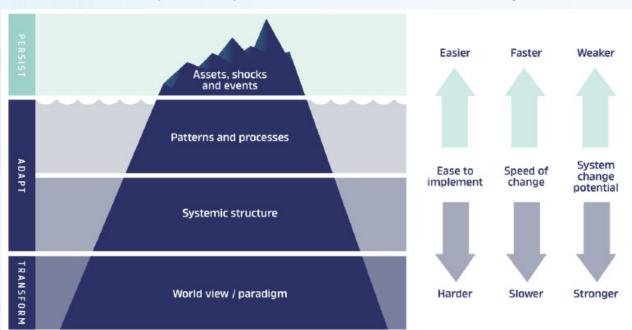
We need a sense of urgency, a sense of care, and a sense of purpose to establish the resilience of our State's water supplies, biodiversity and agricultural sector in the face of the changing regional and global climate, which brings with it a drier Victoria, a change in annual rainfall patterns, a sustained rise in average temperatures, more frequent extreme weather events and, most concerning of all, an expectation of regular, devastating bushfire seasons.



Across all sectors and topics discussed at the Forum, there was a consistent, evidence-based view that genuine societal and systemic transformation is needed given the timeline, breadth and scale of the adaptation required, even under a 2030 scenario. There is consensus about what is needed to achieve real adaptation. There is a sense of urgency about where we want to be by 2030 and beyond. We need to collectively embrace complexity and understand what is required to operate under conditions of sustained uncertainty.

This transformation will require a sustained, all-in effort. Adaptation decisions will not always be win-win decisions, making them politically difficult for government, businesses, individuals, and communities to achieve, and for ideologues and industries requiring transition to accept. It will be essential to build a ground-up, locally focused accord when making these hard calls; a resource-intensive prospect based on establishing genuine relationships, building trust, promoting altruism and convening open discussions around the evidence base about regional futures.

There is strong evidence that for successful transformation, solutions must be co-developed with all landholders, rightsholders and stakeholders involved. Many interventions are highly contextual and specific to localities, while also requiring a broader understanding of how local conditions contribute to state-wide or even global systems. Rather than relying on the imposition of policy regimes on unreceptive communities and industries, we need to better value and acknowledge the need for genuine collaboration, enabling locals to face and address problems beyond the horizon to win transformational change.



Transformation is difficult, yet possible. If it were easy, we would have already done it – it will be hard and slow, but the outcome will be strong. It is also non-optional if we are to consider ourselves responsible for the future welfare of our State. It is essential the difficult work of transformation starts now.

The challenge is 100% doable. Government is good at thinking operationally and rolling out well planned programs of work; the key is to design the transformation process as a long-term program. There are many legislative and policy catalysts that can unlock the change needed (e.g., Climate Change Act 2017, Marine & Coastal Act 2018, Protecting Victoria's Environment — Biodiversity 2037 (a 20-year plan), Recycling

Victoria – a new economy, Water for Victoria – Water Plan 2016).

There are many interventions, some are tried and true with case studies from Victoria, and elsewhere. A number are cited in this summary. Some interventions can start now, while others will require a significant enabling of Government, communities, and some businesses to organise, behave and relate differently.

Transformation requires change in what we do and how we work. Working from a strong collaborative, cocreative model, Victoria can implement its *Climate Change Act* with a sense of purpose, pragmatism and citizen ownership. What is important to acknowledge is that incremental change is not going to deliver the results we need to see. Transformation can range from deliberate and planned through robust engagement all the way to that catalysed by a disaster. While the latter on this spectrum should not be the only catalyst of transformation, preparation for these opportunities are essential.

Transformation requires an agility from all layers of Government that is not commonly seen. Government and communities need to be supported to learn it is both realistic and acceptable not to be sure about the next steps in uncertain conditions, however it is essential to take these steps now.



As may now be familiar to veterans of government-academic forums, it was clear the appetite and capacity for risk in trying new initiatives diverged sharply; to win transformation at the local level, risks must be taken and failure will be a part of that experience on the long road to success. Pragmatically, governments are not permitted trial and error by the electorate, and it appears likely that extensive partnerships will be required to mediate the proposed self-determination process with regional communities.

If there's one thing that became abundantly clear to RSV participants during proceedings, it's that we cannot translate the scientific work behind climate adaptation and resilience without extensive partnerships with skilled **social scientists** and community champions of change. The process leading to the development of the **Goulburn Murray Resilience Strategy** was a remarkable case study and offers considerable opportunities to scale up the capacities for regional communities to adapt to the challenges of the coming decades. We commend this approach to **Regional Development Victoria** in particular.

Next Steps

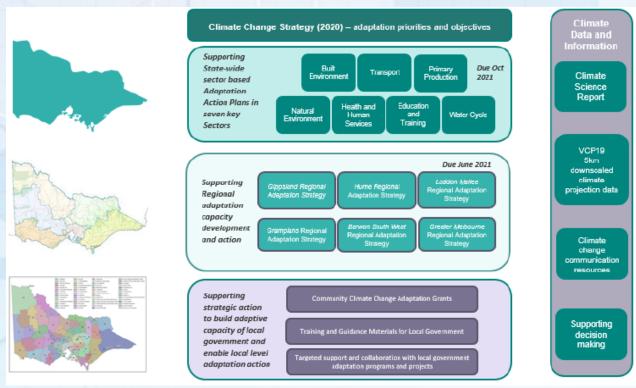
The Victorian Government will embed the ideas from this forum into place-based and sector-wide adaptation planning and action. Victorian adaptation programs are being delivered in unison at state, regional and local scales. The Victorian Government also provides up-to-date climate change science and local scale projection data for all of Victoria to build a detailed understanding of exposure to potential risks and impacts.

At the state scale, the Victorian Government is preparing **Adaptation Action Plans** under the *Climate Change Act 2017* for key systems that are either vulnerable to climate change impacts or are essential to ensure Victoria is prepared. These systems are the natural environment, built environment, water system, primary production, transport, health and human services, and education and training.

At a regional scale, **Regional Adaptation Strategies** are being developed to provide regional stakeholders with a framework to identify, prioritise and deliver place-based adaptation action. DELWP has supported the establishment of **Regional Adaptation Stakeholder Committees** in each region to develop, engage in and, where possible, lead the adaptation planning process to develop Regional Adaptation Strategies for each DELWP region. Beyond the stakeholder committees, the adaptation planning process is also engaging with a wide range of different stakeholders across the region including local government to draw in diverse local knowledge and expertise and build a rich picture of the region.

At a local scale, local governments play a critical role in helping their communities to adapt to climate change. Building a strong and enduring partnership with local government is a central pillar of the Victorian

Government's approach to helping communities adapt to climate change. Local governments are often the first to respond to localised impacts, and their strong connections to the community and local knowledge mean they are often best placed to recognise the need for adaptation at a local scale. The Victorian Government provides targeted support and collaborate with local government to build their adaptive capacity, help local government overcome constraints on their ability to adapt, and provide training and guidance materials to enable local level adaptation action. In 2019, the \$1million Community Climate Change Adaptation (3CA) Grants were announced to support local community adaptation action, encourage partnerships, and share adaptation knowledge and learning.



Supporting adaptation interventions at each scale is the Climate Data and Information program that provides up-to-date climate change science, communication tools, and decision-making support for Victorian decision makers to build a detailed understanding of exposure to potential risks and impacts.

Mike Flattley, CEO



SCIENCE OUTREACH & PARTNERSHIPS

Ms Pamela Borger (Chair), Ms Helen Van De Pol, Dr Amy Nisselle, Dr Sophia Frentz, Mr Siddharth Verma, Mr Stephen Spain

Auspicees

In recent years it has been our practice to partner with groups and individuals whose activities align with the RSV's mission and strategic aims through offering our support as an auspicor. This works in a number of ways: we can indemnify our auspicees' activities under our insurance

coverage; receive, manage and acquit grants from government bodies and foundations; seek donations on their behalf with the benefit of our license to fundraise in Victoria and Deductible Gift Recipient status for donors; and generally enhance the reputation and impact of organisations that are necessarily focused on delivering their programs rather than the administrative overhead of running an Incorporated Association.

The Committee heard from and endorsed two new auspicing organisations before the COVID lockdowns came into place; the **Phoenix School Program**, and the **BioQuisitive Community Lab**. On accepting these excellent initiatives as inclusions to the RSV's auspicing program, we set about creating profiles for each to inform an online awareness and fundraising campaign, titled "<u>Put Science to Work</u>."

It's fair to say a global pandemic is a truly awful time to be fundraising for anything other than vaccine discovery, but we had some small success on the funding front, while the broader public engagement with these programs (and our own) was an entirely worthwhile publicity effort. The auspicees featured include:

Fungi for Land



What if we repaired our soils and ecosystems through a deeper understanding and better management of the fungi kingdom? Fungi for Land is the initiative of **Dr Sapphire McMullan-Fisher** (pictured) and **Roz Hart**.

Fungi for Land are developing a practical guide that will focus on integrating fungi into current Australian land management tool kits. We know that healthy bushlands are resilient bushlands, due to the myriad of interactions between our animals, fungi, plants and microbes.

Australian land managers are only just beginning to discover the important roles that fungi play in healthy ecosystems. Australian fungi are different from those in other countries in the same way that our plants, animals and other species differ. Despite this, Australia lacks a practical guide for land managers for conservation and restoration focused management.

Restoration guides from other countries are, at best, less applicable and, at worst, may suggest the incorporation of fungi from other regions and other countries, which is likely to be detrimental to our Australian landscapes and species. By bringing together a large team of international and Australian experts on land management, conservation and fungal ecology — we are creating Australia's first guide on practical land management that will harness the mysterious mycological kingdom.

BioQuisitive Community Lab

BioQuisitive is an open community laboratory, a safe environment for people from all walks of life to come and "learn by doing" about biology and life sciences, and to get involved in workshops, classes and projects. By providing open access to practical experience in the life sciences, we provide a valuable resource for community education and community-led projects.

A community lab is a state-of-the-art life science laboratory, with no barriers to entry beyond a membership fee. It provides value as a shared resource for independent scholars in the life sciences, tinkerers, and members of the general community with an interest in biology.

By democratising scientific research and knowledge in the life sciences, community labs break down the barriers to entry in biotechnology. No longer is biotech only for those in universities and large organisations. This enhances Victoria's capacity for scientific advancement and the creation and adoption of new technology. Our goal is to establish a larger and more accessible community laboratory for community workshops, classes and projects.



What if community members could work with scientists to tackle the biggest problems we're facing right now? BioQuisitive is a community effort, led by the remarkable Andrew Grey (pictured).

The Phoenix School Program



What if outdated equipment from university and industry laboratories became brand new equipment for high school labs? The energetic **Samuel Wise** (pictured) leads the Phoenix School Program effort.

The Phoenix School Program diverts professional scientific equipment from landfill and donates it to schools in need.

We need to ensure children start as soon as possible on their journey to learn about the world they're inheriting. Setting them on their path, unfortunately, is not as simple as playing videos and reading books. There is a tactile component to STEM education that needs to be delivered to really engage the mind. Yet, many are not getting as much support as they could be due to how expensive STEM equipment can be.

We believe that it's not necessarily about doing more with more, nor doing more with less. We can do a lot with what we already have if we do it wisely. Your support will help us to extend our capacities, from equipment storage and logistics through to engagement with schools on the technical aspects of scientific inquiry.

The BrainSTEM Innovation Challenge

BrainSTEM's programs engage high school students through direct participation in real world Science, Technology, Engineering and Mathematics (STEM) challenges, participating in innovation and research projects with the guidance of a university-level STEM mentor.

BrainSTEM offers students in metropolitan and regional areas with the opportunity to work in a research environment and participate in the journey of scientific discovery, side by side with their university mentor. Programs include a 12-week Innovation Challenge and workshops on building adaptable, resilient minds and design thinking.

As of 2019, BrainSTEM's programs have:

- Reached more than 400 students
- Provided more than 4,000 hours of mentoring
- Achieved a 60% participation rate from public/lower SES schools
- Achieved a 55% participation rate for girls.



What if we fostered a new generation of resilient, empathetic and adaptable Australians? BrainSTEM is the passion project of the highly effective **Siddharth Verma** (too handsome to safely picture)

BrainSTEM is an inclusive program, with a focus on nurturing more female STEM enthusiasts. Your support will help us to bring on board more mentors and to offer programs in more rural and remote areas while keeping program costs to low-SES schools and communities as low as possible.

Science for All



What if anyone, anywhere, could get involved in protecting and restoring our natural heritage with scientific methods? Science for All is a community effort founded and led by the rampantly idealistic Jack Nunn (microscopically pictured, piloting a drone)

Many of the challenges facing the planet today do not have solutions which fall into neat categories such as 'public health', 'environmental studies' and 'education.' Science for All aims to bring together people with diverse expertise to enable a multi-disciplinary approach to solving problems. We create inclusive opportunities for anyone to get involved in science, facilitating learning and supporting the creation of new knowledge.

Science for All involves people of all ages in multiple projects. We lead regular trips into the wilderness to support scientific field work and provide handson learning about how to conduct research. This includes free 'Campfires and Science' events and the 'Wild DNA' project, teaching people to test for the presence of critically endangered species using environmental DNA sampling. We also host multiple online discussions and decision-making processes to assist people all around the world to shape ideas and priorities, including in response to the CoVID-19 pandemic.

All the projects are evaluated transparently, and impacts are reported using 'Standardised Data on Initiatives' (STARDIT). This is an international project hosted by Science for All to help understand how to improve how people can

be involved in shaping the future of human knowledge.

Support our Auspicees

These are outstanding programs aligned with the RSV's mission to promote scientific literacy for everyone in Victoria. We warmly encourage everyone to learn more about these initiatives and consider providing financial or other forms of support to these commendable efforts – more information is available from https://rsv.org.au/put-science-to-work/.

Inspiring Victoria

2020 was the Society's third year as the managing organisation for the ambitious **Inspiring Victoria** program, a state-wide science engagement program co-funded by the Commonwealth **Department of Industry, Science, Energy and Resources**, the Victorian **Department of Jobs, Precinct and Regions**, and the Royal Society of Victoria.





The Inspiring Victoria Board was once again Chaired by Victoria's Lead Scientist, Dr Amanda Caples (pictured left), with senior members from the RSV, Questacon, Museums Victoria, CSIRO, ATSE, veski, Citizen Science Victoria, Public Libraries Victoria and the Department of Education's Tech Schools program. The Victorian Coordinating Committee for National Science Week functions as a committee of the Board, Chaired by Dr Peter Skilton and Ms Kate Barnard, with representatives from universities, Scienceworks, government, community and industry. These governed and delivered our major community engagement initiatives concerned with regional community STEM

engagement and the delivery of National Science Week.

National Science Week - Victoria





The Main Event: Possible Impossibles



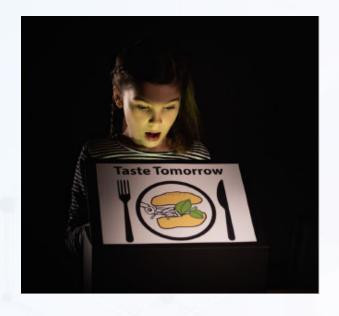
Curated by Dr Renee Beale for the Victorian Science Week Committee.

Building on the success of the 2019 major Science Week event, **Extrasensory**, the Victorian Science Week Coordinating Committee had been planning to hold Possible Impossibles at Parliament House as a single, large event. However, due to COVID-19 restrictions, this event was unable to proceed as planned.

So, to ensure that Victorian Science Week audiences continued to be engaged, the Possible Impossibles event was transformed into an online program of activities, stories, forums and interactive events, where audiences were invited to explore the frontiers of possibility, and ask: what's next for the human species?

ONLINE EVENTS

Brewing Futures (Brick Lane Brewing): A
Taste of Tomorrow tasting box reveal (La
Trobe University): Our Resilient Future (RSV,
scientists from various Universities): Possible
Impossibles Forum (Parliament of Victoria,
RSV, scientists from various Universities):
Seaweed Salon (Science Gallery Melbourne,
Seaweed Appreciation Society): Body/
Insect/ Machine (Science Gallery Melbourne,
Chunky Move).





ONLINE ACTIVITIES

ecosphere (PHORIA): Barwon Listening
(Sensing Sound Duo): PI Bake Off!: Rosetta
Tomorrow Challenge (Whittlesea Tech
School): Sensory Science Exhibition
(Monash and Swinburne, independent artists):
Possible Impossibles - Facial Recognition
(Gippsland Tech School): Making For All
(Monash University): Fake Out: citizen
science project (University of Melbourne).

As a whole, the Possible Impossibles program series resulted in **127,000** individual views, attendees or visitors as of September 2020. The programs garnered over 50 contributors from the STEM community, and significant web page visits before and after National Science Week.

Statewide Program

Statewide Events Breakdown

There were **231** registered National Science Week 2020 events in Victoria, with over **259,000 individual** participants (approximately 4% of Victoria's population).



There were significantly fewer event registrations this year compared to 2019 (434 registered events), also reflected in a reduced participation from 2019 (50% less participation). This was to be expected given the uncertainty and escalating social restrictions in place in response to COVID-19.

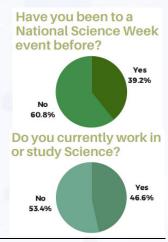
Despite the challenges, there have been successes in growing National Science Week's audience interest and engagement. A substantial increase in website views and unique users shows that, despite fewer events, interest in National Science Week has grown since 2019. Of particular interest is the significant increase in event searches indicating far more people were seeking to participate this year, notably during the constraints of Victoria's pandemic lockdown. The limited choices of events, or perhaps the barriers to online participation, might indicate why this didn't translate into greater event participation overall.

Statewide Audience Response

An interesting consequence of taking the entire program online was a large number of interstate participants. Approximately 13% of survey respondents were from outside Victoria.

Out of the 232 surveys received: 2.6% were under 18, 26.3% were between 18-35, 31.9% were between 36-50 and 39.2% were over 50.

The survey showed that there was a high rate of first-time participants in National Science Week. Further, from the Possible Impossibles survey, all first-time participants also came from a non-science background. Given the geographical spread of participants in this survey, this highlights the increased accessibility and ease of participation of online events.



However, the overall feedback was that the online experience was not as highly valued as an in-person event when compared to 2019 feedback. The main criticisms related to technical issues with software, and events running too long. This was to be expected from the first virtual outing of National Science Week, though overall, the events were plainly enjoyed and participants were understanding of the difficult circumstances in which we were working.

The Regional Champions Project

Recognising the vital role that local libraries play as community knowledge hubs that can effectively engage their community, the RSV partnered with Public Libraries Victoria and Scienceworks to deliver the National Science Week Regional Champions Project, built to foster engagement in regional Victoria by supporting the development and delivery of science literacy programs through public libraries.

Led by Kate Barnard, Program Manager with Scienceworks (featured in the photo below, top centre, with participants), the project consisted of a six-week

mentoring and training program for librarians to become National Science

Week 'Champions' for their local area. Building and relationships between regional communities and state institutions was a key part of the program. We intend for the project to have a lasting impact and build momentum for year-round science engagement programs in our regional communities.



This project was a pilot to test the model of engagement, with a view to rolling out further training programs through the public libraries network if successful. Accordingly, we ran the program again in October with a further 17 librarians, taking the total number of trainees to 26. The map to the right details the associated library branch locations.

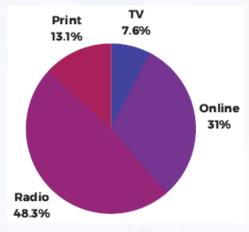
Six regional libraries delivered their new programs during National Science Week. These were: Indigo Shire, "Pollination of Wild Plants;" Ballarat, "Kinetic Connection;" West Gippsland, "What's the Matter?"; La Trobe Valley, "Sound

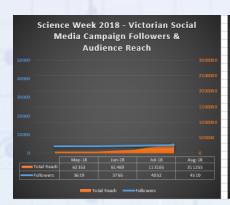
and Music & Light and Colour;" East Gippsland, "Science Snippets;" and Campaspe, "What Does a Cockatoo Do?"

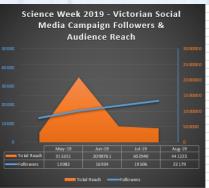
Media Impact

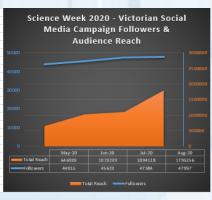
In terms of traditional media outlets, Rural ABC Radio ran the most items relating to National Science Week 2020 (Victoria) with 34 items, followed by Victorian rural newspapers which ran 15. ABC Radio Melbourne, News.com.au (and syndications) and ABC TV were the three next highest.

This coverage provided a total of 145 media hits, reaching a cumulative audience of 3,543,778 people, with a total public relations value of \$2,096,334.









The online nature of this year's program meant that most National Science Week events were delivered through a **social media** platform. Over the month of August, RSV accounts delivered content to 48,969 subscribers with a total audience reach of 1,793,100 people. Year on year, our subscription base has grown considerably to enable this delivery, as demonstrated above.

Inspiring Victoria Partnership Network

Acting under delegation from the Inspiring Victoria Board, the RSV Outreach and Partnerships Committee awards the Partnership Network Grants. Eligible activities are broadly grouped under three categories: Kids STEM Clubs, Lifelong Learning, and Citizen Science.

Under normal conditions, this element of the program comprises of grants to Public Libraries and Tech Schools for delivering STEM-based activities to their local communities. These were not offered in early 2020 due to the emergence of the pandemic and related lockdown conditions. With the easing of restrictions, the grant program reopened in December 2020.

Geographic Spread and Participant Numbers

Down from 27 funded activities in 2019 to just 10 in 2020, the Partnerships Network program nonetheless sustained its engagement with communities across regional and rural Victoria, ranging from Swan Hill in the north to Beechworth in the north-east, the Goldfields region around Bendigo down to the Otways region west of Geelong.

Based on acquittals received to date from the 10 grants allocated, we estimate 700 young people have been directly engaged in sustained activity across the state, with the support and involvement of families, teachers, librarians and local councils, at a total cost of \$19,464, or about \$28 per participant.



Curated Program: Messages from the Future



To round out the 2020 program, the RSV commissioned **Dr Renee Beale** to design and deliver a community engagement project to showcase Victorian science and scientists to our community, engaging a selection of Inspiring Victoria's partner organisations. Given COVID conditions, the program needed to be delivered via social media platforms while still creating opportunities for networks to form and strengthen.

Messages from the Future is a "science meets culture" initiative that invites scientists, students, and Victorian parliamentarians to imagine their best

future and how science helped to build this future. This project aligns with and contributes to current community conversations about recovery after the pandemic and the important role science can play in this.

Scientists were invited to video themselves imagining they are speaking from the future about how their area of science had made the world a better place. These videos were edited and distributed as part of a social media campaign to promote the importance of Victorian science in building positive futures.

A series of four videos were made and distributed from the RSV's social media accounts. You can view the entire playlist at the RSV's YouTube channel at:

https://youtube.com/playlist?list=PLy9vG53Si1DEwUPjE2kfYrrtIDwp591hl .

My thanks to all the RSV's many partners, collaborators, staff and contractors in helping deliver a remarkably successful program in an uncommonly difficult year, with particular congratulations to Inspiring Victoria Manager **Ms Rena Singh** for "parachuting in" for her pandemic moment with the RSV and pulling it all off in style!



Ms Pamela Borger, Chair

HONORARY TREASURER

Mr Andrew Davison

As Honorary Treasurer it is my duty to report to the Royal Society of Victoria's membership on the financial activities and financial performance of the Society over the last year. The auditor's statement and annual Financial Report, with extensive notes, are included with this RSV Annual Report.

Last year represented a significant challenge to the Society, mostly due to the nature of our income being largely related to social activities on site. With Melbourne's lockdown has come the cessation of both forms of utilisation of our building, namely office rental and event hosting. Despite this, the organisation as a whole has performed well financially, substantially due to the support from the Government in the form of JobKeeper, which has allowed us to maintain our staffing to continue to deliver against our objectives for the year.

A Going Concern

At the conclusion of this financial year, it is determined that the current assets of the organisation exceed our liabilities significantly. As such the RSV is considered to continue to be a going concern. This notwithstanding, a significant change in business model for the Society is still required to prevent the Science Foundation hitting a low threshold value within the next decade (or considerably sooner). This threshold has been established to ensure that the RSV has sufficient funds to acquit its liabilities while it is in continued operation.

Science Program

Our financial decisions are predicated on the mission adopted by the Society at any given point in time, so I will commence by setting this context. The RSV Council is nearing the end of the three-year program, commenced at the end of 2018, aimed at ensuring that the role of the RSV in Victorian community is highly visible and relevant, which has been enormously successful. Our work has positioned us in the minds of Government and the public, of particular note here being the work delivering the excellent program for National Science Week. Despite the constraints that the COVID-19 crisis presented, the reputation and presence of the Society has been strengthened by well attended, informative and engaging presentations.

These activities have built on RSV's reputation to position us as a highly relevant member of the Victorian scientific community, ensuring that our primary purpose extends beyond simply convening events for the interest of our members. Without this reputation, it becomes difficult to attract funding through grants, external benefactors and government agencies. Further, this reputation is key to the success of future attempts to commercialise certain aspects of the RSV operations in order to attract significant ongoing revenues. Hence the focus to date on our current program of works undertaken by the RSV staff under Council guidance. With the 3-year program drawing to a conclusion, Council have been preparing a new business plan to assure the continued operation of the Society to benefit its members and the community as a whole.

Staffing

Both the Executive Committee and the RSV Council consider the level of staffing for the organisation on a regular basis. In 2020 the Council, on advice from the Executive, saw fit to reduce our staff loading in anticipation of the reduced use of our facilities and the general down-turn in activities the RSV would normally engage in. This has led to the reduction in spending on salaries to key management personnel, as well as a reduction in spend (and or liabilities) associated with employee benefits and leave.

Revenue

Our revenue for this financial year has been significantly buoyed by the Australian Government's JobKeeper program, which has assisted us in maintaining the staff levels set despite having a significant decline in our ordinary sources of revenue (see "Other Revenue in our P&L statement in this year's Financial Report - unaudited).

In planning for the future, I would note that our traditional sources of revenue are going to be under extreme pressure as there will be a substantial change in the availability (and price) of office accommodation. This partly arises from the change in office practices stemming from COVID-19 but will also be due to the significant venue construction taking place around us presently. This will make the market for event and office accommodation much more competitive and potentially more difficult to participate in unless there is a strong affinity between our lease occupants and event clientele and the Society.

Expenses

Across the board, as you may expect, we saw a decrease in our operating expenses due to the slow-down of business in 2020. As a result, we have been in a position to reduce the impact to the Science Foundation funds which have traditionally been used to supplement our operational budget as per the investment mandate currently in place. In part the staff reductions previously mentioned have helped deliver this result.

Summary, and in closing

In summary, we have had a good year financially despite the significant challenges that the RSV has faced in 2020. However, it is critical to understand the difficulty that we face going forward in a world that has substantially changed coming out of the COVID-19 situation. Our traditional sources of revenue, insufficient as they were, are going to be further challenged in our immediate future and this represents a risk to both our business and the persistence of our organisation. As a result, the new Council and Executive face an extreme challenge in evolving the mission of the Society to achieve sound financial growth — one that I would implore all members to understand and support. The traditional levers are still available; we can plea for grants and philanthropic donations but must recognise that these do not represent a sustainable source of funding for the Society (that is, until we can reach a total position of around \$10M in invested funds). So too can we adjust our investment fund risk profile to attract higher growth targets but must remember that with higher growth profiles comes higher risk, which could be catastrophic given the relatively small investment base we have at our disposal. And lastly there is the question of sale of assets, which most of you will have heard me say before is not a real option as the assets we have are largely not able to be liquidated in our favour due to the nature of our entitlement to them.

Instead, as I leave this post, the Council will need to look towards new business models that attract revenue through the provision of contributions that are seen to have immediate and tangible value – that is to say that someone is willing to pay us for the contribution we make. The Council and Executive have been working hard on this very matter over the last 6 months, and I look forward to seeing what will unfold as a result of this exciting exploration of the value we can contribute to the Victorian scientific (and broader) community.

I wish the incoming Executive and Council the very best in their continuing endeavours and hope to be able to contribute to the continued success of the RSV again in the future.

- Mr Andrew Davison, Honorary Treasurer



The Royal Society of Victoria

ABN: 62145872663

Financial report

(Unaudited)
For the year ended 31 December 2020

Pitcher Partners Advisors Proprietary Limited
Level 13, 664 Collins Street, Docklands VIC 3008
p: +61 3 8610 5000

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THE ROYAL SOCIETY OF VICTORIA INCORPORATED

ABN 62 145 872 663

FINANCIAL REPORT FOR THE YEAR ENDING 31st DECEMBER 2020

Council has the honour to present its financial report of the activities of The Royal Society of Victoria Inc. (a non Reporting Association) for its 166th year of operation: the financial year ended 31 December 2020.

PATRON The Hon Linda Dessau AC

Governor of Victoria

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Immediate Past President

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Honorary Secretary

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Dr A. S. Finkel AO, PhD

Prof. L. Selwood AO, MSc, PhD

THE ROYAL SOCIETY OF VICTORIA INCORPORATED

ABN 62 145 872 663

FINANCIAL REPORT FOR THE YEAR ENDING 31st DECEMBER 2020

PRINCIPAL ACTIVITIES

The principal activities of the Society during the financial year were the promotion and advancement of pure and applied science and technology.

SIGNIFICANT CHANGES

The COVID-19 pandemic had a significant impact on the Society's traditional source of revenues from venue hire and event management, offset with gratitude by government support packages, particularly the JobKeeper program.

OPERATING RESULT

The Surplus of the Society was \$7,304 before depreciation. After charging depreciation the Net deficit was \$153,759.

Signed in accordance with a resolution of the Members of the Council.

Signed by:

David Zerman, President

Signed by:

Rob Gell, Vice-President

Dated this 13th day of April, 2021

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2020

	Note	2020 \$	2019 \$
Revenue and other income			
Grants, donations and bequests		295,810	345,203
Membership income		70,799	75,797
Venue hire income		56,915	249,301
Event and symposia income		37,393	33,876
Other revenue		323,458	77,901
		<u>784,375</u>	<u>782,078</u>
Less: expenses			
Depreciation and amortisation expense		(161,063)	(158,518)
Employee benefits expense		(378,883)	(385,259)
Occupancy expense		(28,418)	(48,132)
Advertising expense		(28,050)	(29,956)
Grants and sponsorships		(134,232)	(132,310)
Awards and prizes		(10,688)	(11,848)
Professional services		(98,633)	(110,223)
Printing, publishing and productions		(34,156)	(41,819)
Catering		(5,148)	(54,651)
Venue hire		-	(15,844)
Office expenses		(12,679)	(28,507)
Other expenses		(73,684)	(82,398)
		<u>(965,634</u>)	(1,099,465)
Deficit before income tax expense		(181,259)	(317,387)
RSV Science Foundation			
Dividends, Distributions and Interest		29,375	45,932
Franking Credits		3,445	8,233
Less: Investment Manager Charges & Rebates		(5,320)	(6,772)
Net Result from RSV Science Foundation		27,500	47,393
Net Results (Deficit)		(153,759)	(269,994)
Other comprehensive income			
Items that will not be reclassified subsequently to profit and loss			
Increase (Decrease) in Market Value of Science			
Foundation Investment Portfolio		(20,212)	124,283
Increase (Decrease) in Market Value of Direct Shares		1,515	<u>2,551</u>
, , , , , , , , , , , , , , , , , , , ,		(18,697)	126,834
Other comprehensive income for the year		(18,697)	126,834
Total comprehensive income		(172,456)	(143,160)
-			

The accompanying notes form part of these financial statements.

STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2020

	Note	2020	2019
		\$	\$
Current assets			
Cash and cash equivalents	3	63,394	19,464
Receivables	4	, 75,501	19,634
Inventories	5	13,251	13,934
Other assets	6	200	200
Total current assets		152,346	53,232
Non-current assets			
Investments at fair value	7	753,741	839,558
Property, plant and equipment	8	6,584,579	6,739,379
Total non-current assets		7,338,320	7,578,937
Total assets		7,490,666	7,632,169
Current liabilities			
Payables	9	59,445	13,245
Provisions	10	10,301	34,585
Other liabilities		6,500	
Total current liabilities		76,246	47,830
Non-current liabilities			
Provisions	10	<u> 25,301</u>	22,764
Total non-current liabilities		25,301	22,764
Total liabilities		101,547	70,594
Net assets		7,389,119	7,561,575
Members funds			
Reserves	11	7,606,285	7,624,982
Accumulated deficit		(217,166)	(63,407)
Total members funds		7,389,119	7,561,575

STATEMENT OF CHANGES IN MEMBERS FUNDS FOR THE YEAR ENDED 31 DECEMBER 2020

		Accumuated surplus/(deficit	
	Reserves)	Total equity
	\$	\$	\$
Balance as at 1 January 2019	7,498,148	206,587	7,704,735
Deficit for the year	-	(269,994)	(269,994)
Increase (Decrease) in Market Value of Science			
Foundation Investment Portfolio	124,283	-	124,283
Increase (Decrease) in Market Value of Direct Shares	2,551		2,551
Total comprehensive income for the year	126,834	(269,994)	(143,160)
Balance as at 1 January 2020	7,624,982	(63,407)	7,561,575
Deficit for the year	-	(153,759)	(153,759)
Increase (Decrease) in Market Value of Science			
Foundation Investment Portfolio	(20,212)	-	(20,212)
Increase (Decrease) in Market Value of Direct Shares	<u>1,515</u>		<u>1,515</u>
Total comprehensive income for the year	(18,697)	(153,759)	(172,456)
Balance as at 31 December 2020	7,606,285	(217,166)	7,389,119

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 2020

Not	e 2020 \$	2019 \$
Cash flow from operating activities		
Cash receipts from Customers, Members and Government	804,043	871,264
Payments to suppliers and employees	<u>(821,653</u>)	(1,066,777)
Net cash (used in) / provided by operating activities	(17,610)	(195,513)
Cash flow from investing activities		
Payment for property, plant and equipment	(6,263)	(31,859)
Interest received	-	104
Drawdown of investment	40,000	152,999
Interest, Dividends and manged fund distribution	27,803	26,059
Net cash provided by investing activities	61,540	147,303
Reconciliation of cash		
Cash at beginning of the financial year	19,464	67,674
Net increase / (decrease) in cash held	43,930	(48,210)
Cash at end of financial year	63,394	19,464

NOTES TO FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2020

NOTE 1: STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES

The financial report is a general purpose financial report that has been prepared in accordance with the *Australian Charities and Not-for-profits Commission Act 2012 and the Associations Incorporation Reform Act 2012* and Australian Accounting Standards - Reduced Disclosure Requirements, Interpretations and other applicable authoritative pronouncements of the Australian Accounting Standards Board.

The Royal Society of Victoria is a not-for-profit entity for the purpose of preparing the financial statements.

The financial report was approved by the council as at the date of the financial report for the year ended 31 December 2020.

The following are the significant accounting policies adopted by the association in the preparation and presentation of the financial report. The accounting policies have been consistently applied, unless otherwise stated.

(a) Basis of preparation of the financial report

Historical Cost Convention

The financial report has been prepared under the historical cost convention, as modified by revaluations to fair value for certain classes of assets and liabilities as described in the accounting policies.

(b) Comparatives

Where necessary, comparative information has been reclassified and repositioned for consistency with current year disclosures.

(c) Employee benefits

(i) Short-term employee benefit obligations

Liabilities arising in respect of wages and salaries, annual leave and other employee benefits (other than termination benefits) expected to be settled wholly before twelve months after the end of the reporting period are measured at the (undiscounted) amounts based on remuneration rates which are expected to be paid when the liability is settled. The expected cost of short-term employee benefits in the form of compensated absences such as annual leave is recognised in the provision for employee benefits. All other short-term employee benefit obligations are presented as payables in the statement of financial position.

NOTES TO FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2020

NOTE 1: STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(c) Employee benefits (Continued)

(ii) Long-term employee benefit obligations

The provision for other long-term employee benefits, including obligations for long service leave and annual leave, which are not expected to be settled wholly before twelve months after the end of the reporting period, are measured at the present value of the estimated future cash outflow to be made in respect of the services provided by employees up to the reporting date. Expected future payments incorporate anticipated future wage and salary levels, durations of service and employee turnover, and are discounted at rates determined by reference to market yields at the end of the reporting period on government bonds that are denominated in the currency in which the benefits will be paid. Any remeasurements for changes in assumptions of obligations for other long-term employee benefits are recognised in profit or loss in the periods in which the change occurs.

Other long-term employee benefit obligations are presented as current liabilities in the statement of financial position if the association does not have an unconditional right to defer settlement for at least twelve months after the reporting date, regardless of when the actual settlement is expected to occur. All other long-term employee benefit obligations are presented as non-current liabilities in the statement of financial position.

(d) Financial instruments

Long-term equity instruments

Long-term equity instruments comprise ordinary shares in listed entities that are not held for trading. On initial recognition, investments identified by the association as long-term equity instruments are irrevocably designated (and measured) at fair value through other comprehensive income. This election has been made as the members believe that to otherwise recognise changes in the fair value of these investments in profit or loss would be inconsistent with the objective of holding the investments for the long term.

(e) Going concern

The financial report has been prepared on a going concern basis, which contemplates continuity of normal business activities and the realisation of assets and the settlement of liabilities in the ordinary course of business.

The association incurred a loss from ordinary activities of \$153,759 during the year ended 31 December 2020. As at 31 December 2020 the current assets and financial assets exceeded liabilities by \$804,540. The management note that the forecasts include significant grant and donation income is required for activity levels to be maintained over the next twelve months, and these inflows are not certain at this time. Then association continues to seek to address the cash requirements by seeking new grants and to sell the investment portfolio if required.

The financial report does not include any adjustment to the recoverability or classification of recorded asset amounts nor to the amounts or classification of liabilities that might be necessary should the association be unable to continue as going concern.

NOTES TO FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2020

NOTE 1: STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(f) Income tax

No provision for income tax has been raised as the association is exempt from income tax under Division 50 of the *Income Tax Assessment Act 1997*.

(g) Property, plant and equipment

Each class of plant and equipment is measured at cost or fair value less, where applicable, any accumulated depreciation and any accumulated impairment losses.

Plant and equipment

Plant and equipment is measured on the cost basis.

Depreciation

The depreciable amount of all other property, plant and equipment is depreciated over their estimated useful lives commencing from the time the asset is held available for use, consistent with the estimated consumption of the economic benefits embodied in the asset.

Class of fixed asset	Depreciation rates	Depreciation basis
Land and buildings at cost	0-3%	Straight line
Paintings and art collection	1%	Straight line
Furniture, fixtures and fittings at cost	1-8%	Straight line
Computer equipment at cost	5-33%	Straight line

(h) Revenue from contracts with customers

Revenue from the sale of goods is recognised when the significant risks and rewards of ownership of the goods have passed to the buyer and the costs incurred or to be incurred in respect of the transaction can be measured reliably.

Revenue from the rendering of services is recognised upon the delivery of the service to the customers.

NOTES TO FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2020

	2020 \$	2019 \$
NOTE 2: SURPLUS/ (DEFICIT)		
Deficit before income tax has been determined after:		
Cost of sales - Purchases/Materials used	38	949
Depreciation - Property, plant and equipment Foreign currency translation losses / (gains) Employee benefits	161,063 (3,445) 378,883	158,518 (8,233) 385,259
NOTE 3: CASH AND CASH EQUIVALENTS Cash on hand Cash at bank	88 63,306 63,394	257 19,207 19,464
NOTE 4: RECEIVABLES		
CURRENT Receivables from contracts with customers	45,004	12,536
Other receivables - GST Input Credits - Sundry debtors - JobKeeper receivable	9,347 21,150 75,501	799 6,299 19,634
NOTE 5: INVENTORIES		
CURRENT At cost Publications and coins	<u>13,251</u>	13,934
NOTE 6: OTHER ASSETS		
CURRENT Prepayments	200	200

NOTES TO FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2020

	2020 \$	2019 \$
NOTE 7: INVESTMENTS AT FAIR VALUE		
NON CURRENT		
Equity investments at fair value	753,741	839,558
NOTE 8: PROPERTY, PLANT AND EQUIPMENT		
Buildings		
At valuation	4,790,000	4,790,000
Accumulated depreciation	<u>(626,631</u>)	(482,918)
	4,163,369	4,307,082
Painting and art collection at cost	19,818	19,818
Accumulated depreciation	(1,980)	(1,782)
	17,838	18,036
Furniture, fixtures and fittings at cost	31,522	31,522
Accumulated depreciation	(4,455)	(2,274)
	27,067	29,248
Computer equipment at cost	167,883	161,620
Accumulated depreciation	(103,383)	(88,412)
	64,500	73,208
Burke and Wills collection at valuation	2,225,000	2,225,000
Library collection at valuation	86,805	86,805
Total property, plant and equipment	6,584,579	6,739,379

(a) Valuations

The fair values of buildings have been determined by reference to director valuations, based upon independent valuations previously obtained on August 2016 from Jardine Llyoyd Thompson Pty Ltd. Such valuations are performed on a fair value basis, being the reinstatement value for the building at the valuation date.

For clarity, no freehold interest is owned by the Society. The asset is carried on the basis of a right of use.

Refer to Note 11: Fair Value Measurements for additional information on the fair value of property, plant and equipment.

NOTES TO FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2020

2020

2019

	2020	2013
	\$	\$
NOTE 8: PROPERTY, PLANT AND EQUIPMENT (CONTINUED)		
(b) Reconciliations		
Reconciliation of the carrying amounts of property, plant and equipment at the beginning and end of the current financial year		
Buildings		
Opening carrying amount	4,307,082	4,452,088
Depreciation expense	(143,713)	(145,006)
Closing carrying amount	4,163,369	4,307,082
Painting and Art Collection		
Opening carrying amount	18,036	18,234
Depreciation expense	(198)	(198)
Closing carrying amount	17,838	18,036
Furniture, fixtures and fittings		
Opening carrying amount	29,248	28,547
Additions	-	2,882
Depreciation expense	(2,181)	(2,181)
Closing carrying amount	27,067	29,248
Computer equipment		
Opening carrying amount	73,208	55,364
Additions	6,263	28,976
Depreciation expense	(14,971)	(11,132)
Closing carrying amount	64,500	73,208
NOTE 9: PAYABLES		
CURRENT		
Unsecured liabilities		
Superannuation Payable	2,594	2,890
GST credits	7,763	-
Sundry creditors	49,088	10,355
	59,445	13,245

NOTES TO FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2020

		2020	2019
		\$	\$
NOTE 10: PROVISIONS			
CURRENT			
Employee benefits		10,301	34,585
NON CURRENT			
Employee benefits		25,301	22,764
NOTE 11: RESERVES			
Building revaluation reserve	11(a)	4,995,530	4,995,530
Burke and Wills Collection reserve	11(b)	2,225,000	2,225,000
Investment revaluation reserve	11(c)	426,191	444,888
Library collection revaluation reserve	11(d)	86,805	86,805
Devaluation of Fixtures and Fittings	11(a) 11(e)	(127,241)	(127,241)
Devaluation of Fixeures and Fittings	11(0)	7,606,285	7,624,982
		7,000,203	7,02 1,302
(a) Building revaluation reserve			
The Royal Society Building (8 La Trobe Street, Melbourne) and cotta was valued during 2016. This valuation was provided by Jardine Lloy			bourne)
Opening balance	ya momp	4,995,530	4,995,530
opening salance		2020	2019
		\$	\$
(b) Burke and Wills Collection reserve		4	4
	_	_	
The Burke and Wills Collection owned by the Society and held by th independently valued during 2011. This valuation was provided by Library Victoria.		•	
Opening balance		2,225,000	2,225,000
(c) Investment revaluation reserve			
The investment revaluation reserve is used to record movements in portfolio, deemed to be held to maturity.	n market v	value of the inves	tment
Movements in reserve			
Opening balance		444,888	318,054
Increase (Decrease) in Market Value of Science		444,888	310,034
Foundation Investment Portfolio			
		(20.212)	124.283
Increase (Decrease) in Market Value of Direct Spares		(20,212) 1.515	124,283 2.551
Increase (Decrease) in Market Value of Direct Shares Closing balance		(20,212) 1,515 426,191	124,283 2,551 444,888

NOTES TO FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2020

2020	2019
\$	Ś

NOTE 11: RESERVES (CONTINUED)

(d) Library collection revaluation reserve

An independent valuation was obtained in 2010. There is no documentation to support this historical figure.

Opening balance	86,805	86,805
(e) Revaluation of Fixtures and Fittings		
Opening balance	(127,241)	(127,241)

NOTE 12: RELATED PARTY TRANSACTIONS

(a) Council disclosure

The council are not remunerated and there are no other related parties.

NOTE 13: KEY MANAGEMENT PERSONNEL COMPENSATION

Compensation received by key management personnel of the association

- Total compensation	<u>96,238</u>	123,972
	96,238	123,972

NOTE 14: EVENTS SUBSEQUENT TO REPORTING DATE

The World Health Organisation declared a pandemic in relation to the COVID-19 virus on March 11 2020. As at the date of signing these financial statements, the impact of the virus on the association continues and includes the ceasing of venue hire and member events are now held on online platforms.

Aside from the above, there has been no matters or circumstances, which have arisen since year end that have significantly affected or may significantly affect:

- a) the operations, in financial years subsequent to year end, of the assocation, or
- b) the results of those operations, or
- c) the state of affairs in financial years subsequent to year end, of the association.

STATEMENT BY MEMBERS OF THE COUNCIL

In the opinion of the council the financial report as set out on pages 3-14:

- Presents fairly the financial position of The Royal Society of Victoria as at 31 December 2020 and performance for the year ended on that date in accordance with the Australian Accounting Standards-Reduced Disclosure Requirements and other mandatory professional reporting requirements.
- 2. At the date of this statement, there are reasonable grounds to believe that The Royal Society of Victoria will be able to pay its debts as and when they become due and payable.

This declaration is made in accordance with a resolution of the Council and is signed for and on behalf of the Council by:

President:.

Mr David Zerman

Treasurer:

Mr Andrew Davison

Dated this 13th day of April 2021

CERTIFICATE BY MEMBER OF COUNCIL

I, David Zerman of 21 Oakleigh Road, Carnegie, Victoria 3163 and I, Robert Gell of 49 Oxford Street, Collingwood, Victoria 3066, certify that:
(a) We are members of the council of The Royal Society of Victoria.
(b) We attended the annual general meeting of the association held on 13 May 2021.
(c) We are authorised by the attached resolution of the committee to sign this certificate.
(d) This annual statement was submitted to the members of the association at its annual general meeting
Dated this day of , 2021
David Zerman (President)
Robert Gell (Vice President)



REVIEW REPORT TO THE MEMBERS OF THE ROYAL SOCIETY OF VICTORIA

Report on the Financial Report

We have reviewed the accompanying financial report of The Royal Society of Victoria, which comprises the statement of financial position as at 31 December 2020, the statement of profit or loss and other comprehensive income, statement of changes in members funds and statement of cash flows for the year then ended, notes comprising a summary of significant accounting policies and other explanatory information, and the directors' declaration.

Committee' Responsibility for the Financial Report

The committee of the association are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards - Reduced Disclosure Requirements and the *Australian Charities and Not-for-profits Commission Act 2012* "ACNC Act" and for such internal control as the committee determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

Assurance Practioner's Responsibility

Our responsibility is to express a conclusion on the financial report. We conducted our review in accordance with Standard on Review Engagements ASRE 2400 Review of a Financial Report Performed by an Assurance Practitioner Who is Not the Auditor of the Entity. ASRE 2400 requires us to conclude whether anything has come to our attention that causes us to believe that the financial report, taken as a whole, is not prepared in all material respects in accordance with Australian Accounting Standards - Reduced Disclosure Requirements. This Standard also requires us to comply with relevant ethical requirements.

A review of a financial report in accordance with ASRE 2400 is a limited assurance engagement. The assurance practitioner performs procedures, primarily consisting of making enquiries of management and others within the entity, as appropriate, and applying analytical procedures, and evaluates the evidence obtained.

The procedures performed in a review are substantially less than those performed in an audit conducted in accordance with Australian Auditing Standards. Accordingly, we do not express an audit opinion on this financial report.

Our responsibility is to express a conclusion on the financial report based on our review. We conducted our review in accordance with Auditing Standard on Review Engagements ASRE 2415 Review of a Financial Report: Company Limited by Guarantee or an Entity Reporting under the ACNC Act or Other Applicable Legislation or Regulation, in order to state whether, on the basis of the procedures described, anything has come to our attention that causes us to believe that the financial report does not satisfy the requirements of Division 60 of the ACNC Act including: giving a true and fair view of the association's financial position as at 31 December 2020 and its performance for the year ended on that date; and complying with the Australian Accounting Standards - Reduced Disclosure Requirements and the Australian Charities and Notfor-profits Commission Regulation 2013 "ACNC Regulation". ASRE 2415 requires that we comply with the ethical requirements relevant to the review of the financial report.

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REVIEW REPORT TO THE MEMBERS OF THE ROYAL SOCIETY OF VICTORIA

A review of a financial report consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the financial report of The Royal Society of Victoria does not satisfy the requirements of Division 60 of the *Australian Charities* and *Not-for-profits Commission Act 2012* including:

- (a) giving a true and fair view of the company's financial position as at 31 December 2020 and of its financial performance and cash flows for the year ended on that date; and
- (b) complying with Australian Accounting Standards Reduced Disclosure Requirements to the extent described in Note 1, and Division 60 of the *Australian Charities and Not-for-profits Commission Regulation 2013*.

M J HARRISON PITCHER PARTNERS

Partner MELBOURNE

