

THE BULLETIN 462

THE ROYAL SOCIETY OF NEW SOUTH WALES

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May 2022

For Your Diary

- 09 JAN-30 JUN

 <u>RSNSW Exhibition:</u>

 NEXUS 2022
- 04 MAY
 <u>Liversidge Lecture</u>
- 11 MAY

 <u>Poggendorff Lecture</u>
- 18 MAY

 Western NSW Branch

 Meeting 2022-2
- **01 Jun**<u>1303rd OGM and Open</u>

 Lecture



Patron of The Royal Society of NSW

Her Excellency The Honourable

Margaret Beazley AC QC

Governor of New South Wales

SAVE THE DATE!

The Royal Society of NSW Bicentennial Dinner

to be held in The Great Hall, The University of Sydney

> on Friday 24 June 2022

Pre-dinner drinks in the Chau Chak Wing Museum opposite at 6:00 PM

See page 3 for more information

RSNSW Liversidge Lecture 2020 Drug discovery inspired by natural products

Wednesday, 4 May 2022, 6:00 PM



Professor Richard J Payne FRSN FRSC FRACI

School of Chemistry and Chemical Biology The University of Sydney

See <u>page 4</u> for more information

RSNSW POGGENDORFF LECTURE 2020 Are our weeds becoming new native species?

Wednesday, 11 May 2022, 5:00 PM



Professor Angela Moles FRSN

School of Biological, Earth and Environmental Sciences UNSW Sydney

See page 5 for more information

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From the President

During April, many outward signs of the pandemic that have disrupted our lives for the past two years disappeared. Airports, theatres, galleries, restaurants, and workplaces are buzzing once again as we learn to live with COVID-19. The dangers of the virus and case numbers persist but vaccines, boosters, and other mitigation strategies, including wearing masks, offer us a roadmap out of strict restrictions.

The Society has been quick to take advantage. On 6 April, we held our Annual & Ordinary General Meetings in person in the Gallery Room at the State Library of NSW. More than fifty people attended. During the AGM, I announced the results of the electronic ballot that included the election of four Council Members for a two-year term. Congratulations to our two new Council members, Professor Sean Brawley and Professor Philip Gale, and two returning members, Pamela Griffith and Emeritus Professor Robert Marks.

At its forthcoming 18 May meeting, Council will appoint the members of its Committees for the next twelve months. This is an annual process that balances retention of organisational knowledge with inclusion of new members in the work of the Society. If you wish to express interest in joining a Committee, including a Branch Committee, please get in touch.

During the OGM, I presented the 2020 RSNSW Medal to Emeritus Professor Mary O'Kane, and the 2021 RSNSW History and Philosophy of Science Medal to Professor Dean Rickles. Professor Ben Eggleton's authoritative presentation and Q&A on New Frontiers in Smart Sensor technology for a Healthier, Safer and Sustainable Future has already attracted more than 120 additional views on the Society's YouTube channel. After the meeting, some of us continued the conversation in The Library Bar, the exciting new venue on the rooftop of the Mitchell Library.

Our next in-person event was the remarkable *Ideas@theHouse* presentation by Richard Tognetti AO, The Australian Chamber Orchestra's Artistic Director and Lead Violin, on **20** April. This is the fourth and first to be held live in the series instigated

by our Patron, Her Excellency the Honourable Margaret Beazley AC QC, Governor of NSW, who invited the RSNSW to stage public events at 'The House' based on important, influential ideas. Richard's presentation and conversation with



Toby Chadd, ASO Director of Artistic Planning, on the subject of 'Nothing' spanned Science, Art, Literature, and Philosophy. Richard played two short pieces on the Guarneri del Gesu Violin crafted in 1743 and on loan since 2007 to the ASO by an anonymous donor. 'Nothing' will be available soon for viewing on our YouTube Channel.

Continuing with Art, <u>Jude Rae</u>, whose artistic career includes more than forty solo exhibitions and is one of our new Fellows, entered her portrait of another FRSN, Saul Griffith, for this year's Archibald Prize. Her large and innovative work incorporates two solar panels in a triptych, reflecting Saul's drive to electrify everything. In 2021, the Society featured Saul in a two-part series on '<u>Our Energy Future</u>'. Jude has been commissioned to paint portraits of many prominent Australians. We wish her all the best when the Archibald Prize winners are announced in early May.

As in the previous Bulletin, I urge you to note in your calendar and watch out for your invitation to our 200th anniversary dinner on 24 June 2022 in



the Great Hall at The University of Sydney. This will be a wonderful occasion and networking opportunity for up to 300 guests. Alan Finkel AC FAA FTSE is guest speaker. While celebrating the Society's past, we will look to the future when Alan considers how Australia

and the Society must engage with present and future national and global challenges in his presentation 'All Aboard — Choose Your Flight to The Future'.

We continue to work for the Society and for NSW because we understand the need to enhance authentic

and authoritative public discourse on a wide range of topics that are crucial to our future. I look forward to seeing you in person or online very soon.

Dr Susan M Pond AM FRSN President, Royal Society of NSW

RSNSW Bicentennial Dinner

The Society's Bicentennial year is culminating in a black-tie gala dinner when we celebrate the achievements of the Society over 200 years. The dinner is being held in the Great Hall, University of Sydney — the location of the Centenary Dinner — with pre-dinner drinks in the University's Chau Chak Wing Museum opposite.

We are delighted that Dr Alan Finkel AC will present the after-dinner address: 'All aboard — choose your flight to the future'.

You will receive an invitation to the dinner very shortly, from which you will be able to register. It promises to be a memorable evening.



RSNSW Council Elections 2022: declaration of results

The electronic ballot for the 2022 Council Elections of the Royal Society of NSW closed at noon on Tuesday, 5 April 2022. There were 222 ballots submitted by 670 eligible voters, representing an overall return of 33.1%.

The outcome of the election is as follows.

For the election of four (4) Council members

There were 840 votes tallied with 12 abstentions from the 222 ballots received.

Councillors, in alphabetical order, elected for a two-year term are:

- Professor Sean Brawley FRSN with 149 votes
- Professor Philip Gale FRSN with 179 votes
- Ms Pamela Griffith FRSN with 193 votes
- Emeritus Professor Robert Marks FRSN with 185 votes



Council Elections 2022 Declaration of Results

The newly elected Council members shall remain in office for two years from just after the Annual General Meeting on 6 April 2022 until the Annual General Meeting in April 2024.

The Hon. John Dowd AO QC FRSN Returning Officer, Royal Society of NSW

RSNSW Liversidge Lecture 2020

Drug discovery inspired by natural products

Professor Richard J Payne FRSN FRSC FRACI School of Chemistry and Chemical Biology The University of Sydney

Date: Wednesday, 4 May 2022, 6:00–8:00 PM **Venue**: Charles Perkins Centre Auditorium (D17),

University of Sydney Entry: No charge

Registration: Registration is essential at

https://www.eventbrite.com.au/e/rsnsw-liversidge-lecture-drug-discovery-inspired-by-natural-

products-tickets-309432239157

All are welcome.

The Liversidge Lecture

The Royal Society of NSW and the University of Sydney are pleased to present the Society's biennial Liversidge Lecture which is awarded for the purpose of encouragement of research in Chemistry. It was established under the terms of a bequest to the Society by Professor Archibald Liversidge MA LLD FRS, who was Professor of Chemistry in the University of Sydney from 1874 to 1907 and was one of the Council members who sponsored the Society's Act of Incorporation in 1881. The Liversidge Lecture for 2020 was awarded to Professor Richard Payne if the University of Sydney.

Summary

Natural products have provided inspiration for the development of drugs to treat human disease since the dawn of medicine. These structurally complex molecules are typically secondary metabolites produced by bacteria, algae, corals, sponges, plants and lower animals and are not required for growth and reproduction, but instead target key biological processes in competing organisms, thus providing an evolutionary advantage for the producer.

Over the past decade, enormous advances in analytical chemistry, genomics and proteomics have underpinned the rapid discovery of new classes of natural products that serve as excellent starting points



for drug discovery programs. This talk will outline strategies that we have used to capitalise on the privileged chemical structures and bioactivity of natural products for the discovery of new drug leads for a range of human diseases. Examples will include the use of venoms from the funnel-web spider for stroke therapy, salivary proteins from blood-feeding ticks, flies and mosquitoes as inspiration for clot-busting drugs, and the modification of molecules produced by soil-dwelling bacteria as novel antibiotics. The final part of the lecture will highlight the use of mRNA display technologies to discover natural product-inspired molecules that have been used to develop diagnostics and antivirals for SARS-CoV-2.

About the speaker

Richard J. Payne received his PhD at the University of Cambridge (Gates Scholar) and following this was a Lindemann Postdoctoral Fellow at the Scripps Research Institute. In 2008, he was recruited to the University of Sydney as a Lecturer within the School of Chemistry. Since 2015, he has held the position of Professor of Organic Chemistry and Chemical Biology and since 2020 has been an NHMRC Investigator (Leadership) and Deputy Director of the ARC Centre of Excellence for Innovations in Peptide and Protein Science. Prof. Payne's research focuses on the development of new methods to access complex biomolecules with a view to addressing important problems in biology and medicine.

RSNSW Poggendorff Lecture 2020

Are our weeds becoming new native species?

Professor Angela Moles FRSN

School of Biological, Earth and Environmental Sciences UNSW Sydney

Date: Wednesday, 11 May 2022, 5:00-7:00 PM

Venue: Royal Botanic Garden Sydney, Palm House,

Mrs Macquarie's Road, Sydney

Entry: No charge

Registration: Registration required for this limited

capacity in-person event **RSVP**: By Monday, 2 May

The Poggendorff Lecture

The Royal Society of NSW and UNSW (Sydney) are pleased to present the Society's Poggendorff Lecture. The Poggendorff Lecture, which is awarded periodically by the Royal Society of NSW for research in plant biology and more broadly agriculture, is named after the distinguished biologist and plant breeder, Walter Poggendorff. For 2020, the Poggendorff Lecture was awarded to Professor Angela Moles of the UNSW School of Biological, Earth, and Environmental Sciences, although the delivery of the lecture has been delayed until now due to the disruption caused by the pandemic.

About the event

The lecture will take place in the oldest greenhouse in NSW, Palm House, built in 1876 and situated in the picturesque Royal Botanic Garden Sydney. Refreshments will be provided from 5:00 PM. The one-hour lecture with audience Q&A follows at 6:00 PM, hosted by Denise Ora, Chief Executive Royal Botanic Garden and Domain Trust and Chair, UNSW Science Advisory Council.

Prior to the lecture, the Royal Botanic Garden Sydney is offering an optional, but exclusive, 90-minute Weed Tour throughout the gardens from 3:30 PM.

About the presentation

Introducing species to a



new environment creates excellent conditions for evolution, as the species are released from their old enemies and subjected to new conditions. Our work has shown that 70% of the plant species introduced to Australia have changed the way they grow since arriving here. If Australia cannot eradicate introduced species (and it seldom can), then it seems inevitable that many more species will eventually evolve to become unique new taxa. At this point, we will have to decide whether to accept them as new native species or continue trying to control them. While most people do not like the idea yet, I think acceptance of introduced species is just a matter of time. I have been called a witch for these ideas before — bring on the arguments!

About the speaker

Professor Angela Moles FRSN, of the School of Biological, Earth and Environmental Sciences of UNSW Sydney, is an international leader in the field of large-scale evolutionary ecology. She studies the processes that shape global patterns, and the way plants grow reproduce and interact with animals. She has a highly cited publication record, and the innovation and quality of her work has been recognised by numerous awards.

Western NSW Branch Meeting 2022-2

Making a living on the plains — Stone tools and archaeology of Aboriginal societies

Dr Colin Pardoe FRSN MAIATSIS Biological Anthropologist and Archaeologist

Date: Wednesday, 18 May 2022, 12:00 PM Venue: Wal Fife Lecture Theatre (Building 14, Room 2), Charles Sturt University (Wagga Wagga Campus) and live streaming (<u>link to be provided</u> on website)

Entry: No charge

All are welcome.

Summary

Stone tools are more durable than string, wood and other perishables that would be used every day. Some, like the Bogan Pick, are enigmatic items whose use is unclear to us today. Others, like the stone axe or hatchet heads, are more familiar. These items tell us about local environments, trade, and how one made a living over the thousands of years when people adapted to their world from Ice Age to Inter-Glacial; when the desert encroached further east and Willandra Creek flowed to Lake Mungo, to the last ten thousand years when the modern rivers set their courses. In this talk, Colin Pardoe will discuss the variety

of tools used to make a living and the attachment people have to items with lifespans covering perhaps thousands of years. Examples will be drawn from across the Murray Darling Basin - Wirad-



juri, Barapa, Barkandji and many others who have shared their interest and knowledge.

About the speaker

Colin Pardoe is a biological anthropologist and archaeologist, although mainly the latter nowadays. He studies the links between people from the biology of bones and the culture of trade in ground-stone tools. He spends most of his time on the archaeology of the Murray-Darling Basin. Since retiring from commercial archaeology, Colin helps with 'Archaeology in the service of Conservation'. He is a member of the Australian Institute of Aboriginal and Torres Strait Islander Studies, has a love and friendship affiliation with the Department of Archaeology and Natural History at the Australian National University, and is a life member of the Australian Archaeological Association and of the Australian Association of Consulting Archaeologists. A number of his papers are available at https://anu-au.academia.edu/ColinPardoe.

RSNSW 1302nd OGM: April 2022 — Return to face-to-face

The Society's 1302nd Ordinary General Meeting held in the Gallery Room of the State Library of NSW marked an important milestone — the return to faceto-face events after two years of exclusively online events imposed by pandemic restrictions.

An audience of over 50 people enjoyed the opportunity to once again meet with fellow Society members and members of the public, and to enjoy a fascinating talk on 'New frontiers in smart sensor technology for a healthier, safer and sustainable future' presented by Professor Ben Eggleton FRSN

FAA FTSE, Director of the University of Sydney Nano Institute and Co-Director of the NSW Smart Sensing Network.

Some images from that occasion are available at this link for viewing and down-

loading. The meeting was also recorded and a video of Professor Eggleton's presentation is now available on the Society's YouTube channel.

From the Archives: A prolific dynamo

by Bruce Ramage (Secretary)

Botanist, museum curator, collector, traveller, horticulturalist, writer, teacher, office bearer of many organisations, friend of Liversidge, erstwhile cartophile, Royal Society of NSW President twice over, secretary three times. One of the most prolific contributors to the Society must be Joseph Henry Maiden. You might be familiar with his name — the Maiden Theatre in Sydney's Royal Botanic Gardens is named after him as is a pavilion in the Gardens.

Joseph Maiden was one of Australia's most distinguished taxonomic botanists, acknowledged as an authority on wattles and eucalypts. His research interests covered broadly the whole of Australian flora, particularly that of New South Wales, and plants of economic importance. A prolific writer, he published many articles in the journals of local learned societies.

Joseph Henry Maiden (1859–1925) was born on 25 April 1859 at St John's Wood, London, and educated



Maiden on visit to Nepean River September 1888

at the City of London Middle Class School where he excelled in subjects, scientific was taught chemistry by Professor Fredrick Barff¹ and even while at school acted as his assistant. Ill health prevented his accepting a scholarship to Christ's College Cambridge and completing a science degree at the University of London.

As part of his treatment he was advised to take a long sea voyage, and so in 1880 he sailed for New South Wales.

On arrival in Sydney, the committee of the Technical or Working Men's College (run initially by the SMSA and the forerunner to Sydney Technical College) soon invited Maiden to deliver a course of lectures. He later contacted a friend of Barff, Professor Archibald Liversidge, who offered him the post of curator of the new Technological and Sanitary Museum (now the Museum of Applied Arts and Sciences). Maiden agreed, although intending to return within a year to England. However, he enjoyed the work and he stayed and in 1883 married Eliza Jane Hammond in Melbourne. In 1885 Maiden began to study at the University of Sydney but again his health failed.

As always, he threw himself into his work in the museum with gusto, despite set-backs. In 1882 the Garden Palace, which housed the collection, was destroyed by fire. Maiden and his small staff started again. He amassed a new collection, which was housed in part of an exhibition hall in the Outer Domain, behind Sydney Hospital. Although the museum was poorly housed in a tin shed until moved to Ultimo in 1893, he made it a centre of applied scientific research and popular education. His regular afternoon lectures were well attended. While there, he published an article in 1886 describing what he called 'some sixteenth century maps of Australia'. These were the so-called Dieppe maps, the Rotz (1547), the Harleian or Dauphin (mid-1540s), and the Desceliers (1550), photo-lithographic reproductions of which had been published by the British Museum in 1885.

His burgeoning interest in Australian flora was helped by the director of the Botanic Gardens Charles Moore (1820–1905), and by Reverend William Woolls. Maiden quickly established himself as an expert in economic botany and encouraged research into the properties of Australian timbers and essential oils. He began writing on botanical

(continued)

¹ Frederick Settle Barff (1823–1887) English chemist. Inventor of the Barff (Bower-Barff) process for preventing the corrosion of iron and steel by producing an adherent coating of magnetic oxide of iron (Barffing).

² Rev William Woolls (1814–1893), Church of England clergyman, schoolmaster and botanist.

subjects in 1887 and in 1889 published *The Useful Native Plants of Australia*. A smaller work, *Wattles and Wattle-Barks*, followed the next year.

In 1890 he was indignant when passed over for the position of botanist in the new Department of Agriculture. However, the next year he was appointed consulting botanist to the department's forestry division. Early in 1894 he became superintendent of technical education and in May 1896 succeeded Charles Moore as director of the Botanic Gardens and government botanist. He immediately set about establishing the colony's first herbarium, as well as a museum, library and Sydney's first playground which opened in March 1901.

He sought to make the Gardens a centre for public education as well as recreation and aesthetic enjoyment. Supportive of the working conditions of his staff, he delegated easily and in return won hard work and respect bordering on reverence. He produced regular and voluminous annual reports. Most of his holidays were spent on collecting expeditions throughout Australia. In Europe in 1900 he visited botanical gardens, attended conferences, and returned with a collection of portraits of famous botanists to adorn the herbarium and nearly 600 botanical specimens collected by Sir Joseph Banks in 1770 and hitherto stored in the British Museum.

Maiden continued his massive output of botanical research and publication. He maintained his interest in economic botany: the useful and the dangerous qualities of various plants. But this expanded into a taxonomic project: identification and classification of major Australian genera. His major works were A Critical Revision of the Genus Eucalyptus, appearing in over seventy parts from 1903, in which he recognised 366 species, and his Forest Flora of New South Wales, in seventy-seven parts from 1904. Many other books and articles for journals and newspapers flowed from his pen, occasionally in collaboration, including 45 papers in the Journal and Proceedings of the Royal Society of New South Wales, one of which was a history of the RSNSW up to that point, 95 in the Proceedings of the Linnean Society (NSW) and over

100 in the Agricultural Gazette of New South Wales. He lectured at the University of Sydney in forestry from 1913–21 and in agricultural botany from 1914–21. He encouraged farmers to use herbarium staff to identify grasses and bushes grazed by their stock.

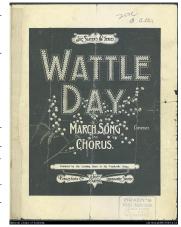


Maiden delivering address as part of the Garden's centenary celebrations June 1916

Active in the movement to retain large areas of native forests, Maiden also published important work on the use of plants to stabilize sand drift and on the essential role of trees in flood mitigation. A leading member of an important group of urban improvers, he ardently advocated for more parks and trees to soften urban landscapes, dispatching thousands of seeds and cuttings from the gardens to local councils and schools. He wanted protection for trees endangered by urban development and popularised the palms which became a feature of Edwardian Sydney. As well as the Botanic Gardens, the State nursery and several vice-regal residences, Maiden was in charge of the Outer Domain and Centennial Park. He fought hard (not always successfully) to make and maintain his various domains safe for the public, day and night. In 1909 he helped found Wattle Day 'with the view of stimulating Australian national sentiment'. For many years he was president of the State branch of the Australian Wattle League and in 1922 was elected national president.

He was a long-term council member of many learned societies in Sydney. As well as being President of the Royal Society of NSW in 1906 and 1911, Maiden was president of the Linnean Society in 1901–02, the (Royal) Australian Historical Society

in 1905 and 1907, the Horticultural Society from 1904–17, the Horticultural Association for eighteen years, and the Field Naturalists' Society. He was also secretary of the Geographical Society of Australasia in 1884–85 and the Australasian Association for the Advancement of Science from



Wattel Day March song and quick step 1920s

1907–21, and a foundation member of the Australian National Research Council in 1919. He published articles on early botanists and on the history of the Botanic Gardens, including a life of Banks in 1909. A corresponding member of societies in the United States of America, France, Switzerland, Chile, Algeria and Czechoslovakia, Maiden was always willing

to provide seeds, specimens and information. He was, for example, an honorary member of the Netherlands Society for the Promotion of Industry and a fellow of the Linnean, Chemical, Royal Geographical and Royal Horticultural societies of London.

Awarded the gold medal of the Linnean Society of London in 1915, he was elected a Fellow of the Royal Society and appointed ISO in 1916. He also received the Australasian Association for the Advancement of Science's Mueller medal (1922) and RSNSW's Clarke Medal in 1924. His name is commemorated in two generic, thirty-five specific and three infra-specific botanical names.

Maiden retired in 1924 and moved to Turramurra. He had suffered from rheumatoid arthritis following an accident while collecting in 1911, but he continued to work at a prodigious rate and his wit still sparkled. He died of heart disease on 16 November 1925 at Turramurra and was buried in St John's Anglican cemetery, Gordon. His wife and four daughters survived him. His only son had been lost at sea twenty years earlier. Funds were collected to erect a memorial pavilion in the Botanic Gardens.

³ Not awarded since 1993 except in PNG. The Imperial Service Order was established by King Edward VII in August 1902. It was awarded on retirement to the administration and clerical staff of the Civil Service throughout the British Empire for long and meritorious service. Normally a person must have served for 25 years to become eligible, but this might be shortened to 16 years for those serving in unsanitary locations. There is one class: Companion. Both men and women are eligible, and recipients of this order are entitled to use the post-nominal letters 'ISO'.

Report: Events Committee

by Christina Slade (Chair, Events Committee) and Lindsay Botten (Webmaster)

The first face-to-face meeting for two years took place at the Gallery Room of the State Library on 6 April and included the Annual General Meeting for 2022 followed by the 1302nd Ordinary General Meeting. There was a palpable sense of excitement among the fifty or so attendees at once again being able to meet. The speaker for the evening was Professor Ben Eggleton FRSN FAA FTSE, Director of the University of Sydney Nano Institute and Co-Director of the NSW Smart Sensing Network, who spoke on 'New frontiers in smart sensor technology for a healthier, safer and sustainable future' — with the recording of the <u>presentation now available</u> on our YouTube channel. It was a vivid performance with great energy and excitement. Some of the audience retreated after the lecture to the Library Bar. It is a great space with an impressive terrace for those nights on which it is not raining.

The first *Ideas@theHouse* event for 2022, jointly hosted by Her Excellency the Honourable Margaret Beazley AC QC, Governor of NSW and the Royal Society of NSW took place at Government House on the evening of 20 April — the fourth in the *Ideas@theHouse* series but only the first held at 'The House'. A face-to-face audience of 52, together with a larger online audience of the live-streamed presentation, were treated to a fascinating lecture and performance by Richard Tognetti AO, Artistic Director and Lead Violin of the Australian Chamber Orchestra, on the topic of 'Nothing'. The live-streamed event will be made available on our <u>YouTube channel</u>.

We have a particularly busy agenda for named lectures this year as we endeavour to catch up on 2020 awardees. The first of these, the Clarke Memorial Lecture, took place on the evening of 17 March, with Distinguished Professor Michelle Leishman FRSN speaking on 'From bulldozers, pests, and pathogens to climate change and urban futures: the tough life of plants'.

In May we will have a further two named lectures. The Liversidge Lecture will be delivered by Professor Richard Payne FRSN on Wednesday, 4 May at 5:45 PM at the Charles Perkins Auditorium at the University of Sydney, on the topic 'Drug Discovery Inspired by Natural Products'. Registration is required for this face-to-face event.

The Poggendorf Lecture will be delivered by Professor Angela Moles FRSN at the Royal Botanic Garden on Wednesday, 11 May from 5:00–7:00 PM, on the topic 'Are our Weeds becoming New Native Species'. Registration is also required for this faceto-face event.

On Wednesday I June (6:00 PM for 6:30 PM), the I303rd OGM will be a face-to-face meeting at the State Library of NSW followed by a lecture by Professor Anne Twomey AO of Sydney University on 'Federalism, Borders, and the National Cabinet — What has the pandemic taught us?'.

The event program for the year in <u>Sydney</u>, the <u>Hunter region</u>, the <u>Southern Highlands</u>, and in <u>Western NSW</u> is available on the Society's website at the preceding links.

Report: Southern Highlands Branch

by Anne Wood (Branch Secretary)

Space Race 2.0

Dr Bradley Tucker Research School of Astronomy and Astrophysics, Mt Stromlo Observatory and the National Centre for the Awareness of Science, ANU



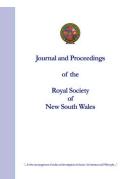
Brad Tucker is an Astrophysicist/Cosmologist at the Research School of Astronomy and Astrophysics, Mt. Stromlo Observatory and the National Centre for the Public Awareness of Science, at the Australian National University. Brad received Bachelors degrees in Physics, Philosophy, and Theology from the University of Notre Dame, and a PhD in Astrophysics and Cosmology from Mt. Stromlo Observatory at the ANU. He lead programs using NASA's Kepler Space Telescope and TESS to understand why and how stars blow up. He is also building a network of ultraviolet telescopes in the upper atmosphere, conducting a search to find Planet 9, as well as studying issues surrounding the mining of asteroids.

It has been three or four years since Brad last addressed the Southern Highlands group, and the overriding impression of the audience was amazement at the rapid advances that had been made in space science and technology over that time. Missions, projects and events that are happening right now were not even on the radar a few years ago. From private space travel and Hollywood movies, to building satellites to detect the initiation of fires on earth and searching for life in the solar system, huge changes have produced wide-ranging implications in law, policy, international relations, economics and even the way we live. Brad's analysis of this new and ever-changing scenario was exciting and inspirational. His descriptions were vivid and clear, some of his data and audio-visual material bringing audible gasps from the audience.

In one of Brad's roles of promoting public awareness of science, he frequently gives talks to school groups and the public about astronomy, and has regular segments on various radio and TV stations. He has also developed a series of Astronomy coins with the Royal Australian Mint, consulted on science fiction movies, and has been featured in TV specials. He is currently in the process of writing his first popular book.

Journal & Proceedings of the Royal Society of New South Wales

As you may recall, the numbers of subscribers to the paper issues of the *Journal* fell from 212 to about 26 with the change in the platform for renewing one's membership in the Society (and resubscribing to the Journal). We believe that this collapse



in subscriptions was caused by the difficulty many members experienced in negotiating the platform to resubscribe. As a consequence, TAS sent out an email to last year's subscribers who had not renewed this year alerting them to this fact, and offering another way to resubscribe — through the Society's on-line shop.

If you want to resubscribe (\$60 for two issues), please go to the Society's <u>Online Shop</u> and do so soon.

Report: Hunter Branch

by Philip Bolton (Honorary Branch Secretary)

The Hunter Branch returns to face-to-face meetings

The Hunter Branch of the Society recently held its first face-to-face meetings since the COVID pandemic.

Annual General Meeting

The Chair of the Hunter Branch, Distinguished Emeritus Laureate Professor John Aitken, had the pleasure of inviting the members and fellows of the Hunter Branch of the Society to attend its 2022 Annual General Meeting.

It was resolved that the Hunter Branch Committee and office bearers for 2022–2023 are:

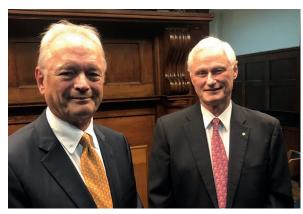
Chair	Distinguished Emeritus Laureate Professor John Aitken FRSN FRSE FAA FAHMS
Vice-Chair	Professor Natalie Thamwattana FRSN
Honorary Secretary	Honorary Professor Philip Bolton FRSN
Honorary Treasurer	Professor George Willis FRSN FAA
Committee Members	Professor Alan Broadfoot FRSN Father Andrew Doohan Professor Brett Nixon FRSN Professor Steven Weller FRSN Adjunct Professor Robert Whittaker AM FRSN Dr Philip Bailey

The Hunter Branch Committee is currently finalising the 2022 lecture series to be presented in the Hunter and these will be announced in the Society's Event page in due course.

Royal Society Lecture in the Hunter

The AGM was immediately followed by a Royal Society lecture presented by world-renowned clinical/scientist Distinguished Laureate Professor Nick Talley AC who presented his perspectives on the progress of the COVID pandemic through a medical journal editor's eye. Professor Talley has a distinguished

career as a clinician-scientist which among his many roles includes leading a research team at the Hunter Medical Research Institute specializing in gastroenterology. He has been president of the Royal Australasian College of Physicians, Chair of the Council of Presidents of Medical Colleges, Australia, and is currently Editor-in-Chief of The Medical Journal of Australia.



Professor Aitken with Professor Talley AC

In his lecture, entitled COVID-19: past performance, present practice and future prospects, Professor Tally presented an engaging account of the research that was available to inform the national and international response to the discovery of the virus and the consequent public health responses around the world. He highlighted what he believed were appropriate and inappropriate responses given the available research data while noting the differences and challenges associate with the different variants of the virus. It was a stimulating and thought-provoking presentation.

Notable recent achievement

The Members and Fellows of the Hunter Branch wish to acknowledge and congratulate one of the Society's Fellows from the Hunter Branch: Professor Jennifer Martin FRSN is President-Elect of the Royal Australasian College of Physicians (RACP) — a position our recent Hunter Branch RSNSW lecturer, Distinguished Laureate Professor Nicholas Talley AC, has held in the past.

Statement by the Royal Society of NSW on Ukraine

The Royal Society of NSW, an inclusive learned institution founded on the principles of liberal democracy, encourages discourse and the free exchange of ideas that respect religious, political, and cultural freedoms.

The Society condemns the Russian invasion of Ukraine as a brutal assault on such values and on the Ukrainian people. It presents a real threat to democracy.

The Society will continue its century-old exchange of information with Russian intellectuals as an important means to support freedom of thought in Russia and give encouragement to those committed to a free, open society.



Recent Events now on YouTube: March 2022

All online events from the Royal Society of NSW are recorded and are made available for subsequent viewing on our YouTube channel, youtube.com/royalsocnsw. There were three events, for which recordings are available, held in March 2022.

In the first of these, the award winners of the Royal Society of NSW Student Awards for 2021 presented a sequence of short talks on their PhD and Masters by research studies. Speaking on the evening of 2 March were Zain Mehdi of the Australian National University, winner of the Jak Kelly Award, and the Scholarship winners, Harry Marquis of the University of Sydney, and Sajad Abolpour Moshizi and Kevin Chau, both from Macquarie University. Their talks are now available on YouTube.

On 15 March, the Western NSW Branch of the Society held their first meeting of the year from The Grange on the Bathurst campus of Charles Sturt University (CSU) — an excellent panel discussion on 'Public Trust and Science in Times of Coronavirus'. The panellists were Emeritus Professor Robert Clancy AM FRSN, Michelle Grattan AO FASSA,

Chief Political Correspondent of The Conversation, and Professor Jane Quinn of CSU, expertly led by the moderator, Professor Mark Evans FRSN, the newly appointed Deputy Vice-Chancellor (Research) at CSU and the incoming Chair of the Western NSW Branch, A



Recorded

youtube.com/royalsocnsw

recording of this forum is now available on our You-Tube channel.

The Royal Society's Clarke Memorial Lecture for 2020 was held on 17 March. This event was jointly organised by the Society and Macquarie University at which the winner of the Clarke Medal for 2020, Michelle Leishman, is a Distinguished Professor. Professor Leishman spoke on the topic 'From bulldozers, pests, and pathogens to climate change and urban futures: the tough life of plants', with her presentation now available on YouTube.

Welcome to new members

The Royal Society of New South Wales warmly welcomes the following new member to the Society's ranks, effective from 6 April 2022.

Members

• Mr Jeffrey Styles

List of proposed events for 2022

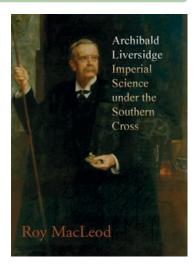
Kindly note that this is a provisional list and will be subject to change, due to the prevalence of COVID-19 during early 2022. Updates will be reflected in future issues of the Bulletin and on <u>our website</u>.

Date	Event
Wednesday,	Liversidge Lecture (2020 — delayed)
4 May	Topic: Drug discovery inspired by natural products
6:30 PM AEST	Professor Richard Payne FRSN, University of Sydney
Wednesday,	Poggendorff Lecture (2020 — delayed)
11 May	Are weeds becoming a new native species?
6:00 PM AEST	Professor Angela Moles FRSN, UNSW Sydney
Wednesday, 18 May 12:00 PM AEST	Western NSW Meeting 2022-2 Making a living on the Plains — Stone tools and Archaeology of Aboriginal societies Dr Colin Pardoe FRSN MAIATSIS Wal Fife Theatre (Building 14, Room 212) Charles Stuart University (Wagga Wagga Campus)
Wednesday,	1303 rd OGM and Open Lecture
1 June	Federalism, borders and National Cabinet: What has the pandemic taught us?
6:30 PM AEST	Professor Anne Twomey AO, University of Sydney
Wednesday,	1304 th OGM and Open Lecture
6 July	This is going to be different: Learning to live with Chinese power
6:30 PM AEST	Emeritus Professor Hugh White AO FASSA, Australian National University
Wednesday,	Ideas@theHouse: July 2022
27 July	Topic: to be advised
6:30 PM AEST	Rachel Perkins
Wednesday,	1305 th OGM and Open Lecture
3 August	Topic: to be advised
6:30 PM AEST	Professor Kathy Belov AO FRSN, University of Sydney
Wednesday,	1306 th OGM and Open Lecture
7 September	Is Fairweather an Australian artist? And does it matter?
6:30 PM AEST	Claire Roberts, University of Melbourne and Nick Jose, University of Adelaide
Wednesday,	1307 th OGM and Open Lecture
5 October	Topic: to be advised
6:30 PM AEDT	Presenter: to be advised
Thursday,	Royal Society of NSW and Learned Societies Annual Forum
3 November	Topic: to be advised
6:30 PM AEDT	Presenter: to be advised
Wednesday,	1308 th OGM and Open Lecture
1 December	Topic: to be advised
6:30 PM AEDT	Presenter: to be advised

Archibald Liversidge: Imperial Science under the Southern Cross

When Archibald Liversidge first arrived at Sydney University in 1872 as reader in geology and assistant in the laboratory, he had about ten students and two rooms in the main building. In 1874, he became professor of geology and mineralogy; by 1879, he had persuaded the senate to open a faculty of science. He became its first dean in 1882. In 1880, he visited Europe as a trustee of the Australian Museum and his report helped to establish the Industrial, Technological and Sanitary Museum which formed the basis of the present Powerhouse Museum's collection. Liversidge also played a major role in the setting up of the Australasian Association for the Advancement of Science which held its first congress in 1888.

One of his greatest contributions was to science education. He worked tirelessly to secure proper recognition of science in both secondary and tertiary education. In the preface of his book, Professor MacLeod comments: 'Liversidge remained confident that Australia's path would follow the route



of the "moving metropolis", strengthened by the bonds that tied Australia to its British heritage. In that heritage lay his life, and through that heritage, flowed the genius of imperial science in New South Wales'. To order your copy, please complete the <u>MacLeod: Liversidge order form</u> and return it to:

The Royal Society of NSW (Liversidge book) PO Box 576 Crows Nest NSW 1585 Australia

or contact the Society: Phone: +61 2 9431 8691 Email: info@royalsoc.org.au

The Society and social media

The Society's presence on social media platforms is slowly but surely growing. Our <u>Facebook page</u>, <u>Twitter feed</u> and <u>YouTube channel</u> continue to attract and engage followers and viewers, and we continue to build a repository of online events conducted recently on YouTube. The icons on the right will take the reader to the platforms' respective pages, from where they can follow and subscribe to the Society, and be notified of new content.



Current Council and Office-Bearers

The current Council and office-bearers of the Society are:

Patron	Her Excellency The Honourable Margaret Beazley AC QC, Governor of New South Wales
President	<u>Dr Susan Pond AM FRSN</u>
Vice-President	Ms Judith Wheeldon AM FRSN
Secretary	Mr Bruce Ramage MRSN
Treasurer	Mr John Cameron MRSN
Librarian	Mr John Hardie AM FRSN
Webmaster	Emeritus Professor Lindsay Botten FRSN
Councillors	Professor Katherine Belov AO FRSN
	<u>Professor Sean Brawley FRSN</u>
	<u>Dr Jessica Milner Davis FRSN</u>
	<u>Professor Philip Gale FRSN</u>
	Ms Pamela Griffith FRSN
	<u>Dr Davina Jackson FRSN</u>
	Emeritus Professor Robert Marks FRSN
	Emerita Professor Christina Slade FRSN
Hunter Branch Representative	Professor George Willis FRSN FAA
Southern Highlands Branch Representative	Mr Mike Jonas MRSN
Western NSW Branch Representative (interim)	Dr David Nash FRSN

Editor: Jason Antony MRSN

THE VIEWS EXPRESSED IN THIS PUBLICATION DO NOT NECESSARILY REFLECT THOSE OF THE SOCIETY.







