

## ANNUAL REPORT



Royal Society of Western Australia

2023 Annual Report

*The Royal Society of Western Australia acknowledges the Traditional Owners of country throughout Western Australia and recognises their continuing connection to land, waters and community. We pay our respects to them and their cultures; and to elders both past and present.*

[P1]

## President's Letter

Dear Members,

I am pleased to present the Royal Society of Western Australia's Annual Report for the financial year 1 July 2022 to 30 June 2023 including reports of event that occurred before the 2023 AGM.

Our annual *Fire and Air Forum*, held in partnership with the WA Forest Alliance, brought together scientists, policymakers, and community leaders to discuss the intersection of fire ecology, air quality, and climate resilience in Western Australia. The **Third John Glover Symposium**, *Decarbonisation of the WA Economy*, was another highlight, drawing wide participation and providing a multidisciplinary perspective on Western Australia's transition toward a sustainable future.

The Society also continued to advance its mission through the *Journal of the Royal Society of Western Australia*, which remains a respected outlet for peer-reviewed research focused on our state's unique environment and scientific challenges. We were proud to support the next generation of researchers through the **John Glover Research Grants**, awarded to outstanding postgraduate students across Western Australian universities.

I extend my sincere thanks to all members, Council, and volunteers for their ongoing commitment to the Society's work. Together, we continue to celebrate and strengthen the role of science in understanding, protecting, and enhancing Western Australia's natural environment.

Hans Lambers  
President

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[P2]

### **About the Royal Society of Western Australia**

As the premier society of scientists in Western Australia, the Royal Society of Western Australia (RSWA) proudly fosters exchange among natural and physical scientists and promotes the natural sciences in all their aspects through publications, meetings, symposia, and special events.

Our peer-reviewed *Journal of the Royal Society of Western Australia* features original scientific research with an emphasis on local science. Broad in scope, it covers the natural and physical sciences, as well as anthropology and archaeology.

We also organise symposia and excursions on topics of current importance or interest, foster science in the community through special events and education, and maintain a publicly available library at the Western Australian Museum.

The Society was established in 1914 and is inspired by the Royal Society of London, the world's oldest scientific academy.

The Patron of the Royal Society of Western Australia in 2023 was His Majesty King Charles III, and the Vice-Patron was His Excellency the Honourable Chris Dawson APM, Governor of Western Australia.

[P3]

## **The year in review**

During the financial year 2022-23, the RSWA continued its work in promoting and supporting the advancement of the natural and physical sciences in Western Australia. Highlights during the 2022-23 year — including some which occurred after the end of the financial year, but before our 2023 Annual General Meeting — are detailed below.

### **RSWA Symposium with WA Forest Alliance – “Fire and Air Forum”**

Held on 5 May 2023 in the University Club at UWA, this year’s annual RSWA symposium was delivered jointly with WA Forest Alliance and was entitled Fire and Air Forum.

Speakers included:

- Convenor - Dr Carole Peters
- MC - Dr Mignon Shardlow
- Welcome to Country - Daniel Garlett & Elder Marie Taylor
- Josie Alec (ACF First Nations Lead)
- E/Prof Don Bradshaw (UWA)
- Mikey Cernotta (Pemberton Honey Co)
- Thomas Chvojka (Private Land Manager)
- Prof Kingsley Dixon (Curtin Uni)
- Elder Lynette Knapp & Ursula Rodrigues (Albany Campus UWA)
- Prof David Lindenmayer AO (ANU)
- Dr Carolyn Orr (DEA)
- Tony Pedro (Firefighter & Farmer)
- Dr Fabienne Reisen (CSIRO)
- Adjunct A/Prof Adeleh Shirangi (Curtin Uni)
- Dr Emma-Leigh Synnott (DEA WA)
- A/Prof Marta Yebra (ANU)
- Adjunct A/Prof Philip Zylstra (Curtin Uni)

The event was organised by WA Forest Alliance and attracted attendees from a broad range of scientific disciplines. It was a huge success, generating interesting discussion and debate, and providing valuable networking opportunities for attendees. The outcomes are set out at: <https://wafa.org.au/fire-and-air-forum/>.

### **Third John Glover Symposium**

This year marked the third annual two-day symposium named in the late John Glover’s honour, following his very generous bequest in 2020.

Held on Friday, 7 October and Saturday, 8 October 2023 at the University Club at UWA, the John Glover Symposium explored Decarbonisation of the WA economy. The event was opened by Kate Chaney MP

Over the two-day event the following speakers presented

Opening and Welcome *Kate Chaney MP*

- Bill Hare, Climate analytics: Is WA on track towards net zero by 2050?
- Klaus Regenauer-Lieb, Curtin Univ.: The role of Western Australia in the emerging hydrogen future
- Furat Dawood, Murdoch Univ.: Hydrogen

- Rosie Johnston, GeoVault and Full Circle Carbon: Carbon capture and storage in WA – where, how and why?
- Thomas Braunl, UWA: Electric Vehicles and Decarbonisation
- Hui Tong Chua, UWA: Direct-use of geothermal energy in Perth
- Judy Fisher, Fisher Research Pty Ltd and UWA: Decarbonising the economy while looking after our biodiversity
- Hugh Wolgamot, UWA: Wave energy
- David Pannell, Professor UWA: Mitigating climate change in agriculture: Policy options and policy challenges
- Caitlin Moore, UWA: How can changes in agricultural practices contribute to mitigating global warming?
- Richard Harper, Murdoch Univ.: Carbon-capture and storage: planting trees
- Nanthi Bolan, UWA: Carbon-capture and storage: soil carbon and biochar
- Lewis Walden, Curtin Univ.: Soil carbon in Western Australia
- Rachel Standish, Murdoch Univ.: How to avoid a conflict between decarbonisation and biodiversity
- Catherine Patterson, Carbon-Positive Australia: Can smaller businesses and individuals help with decarbonising the WA economy
- Anna Kaksonen, CSIRO: Bio-based solutions for decarbonisation
- Eric May, UWA: The importance of carbon-capture and storage
- Paul Lavery, ECU: Blue Carbon – its potential role in carbon abatement strategies – agreed (on the condition he is available that day)

Organised by Hans Lambers, this truly multidisciplinary event was well attended and led to several new members joining the Society — many of them tertiary students. At the event, we also announced seven successful research grant recipients arising from the John Glover bequest (set out below) and awarded 9 student poster prizes.



Winners of poster prizes at the third John Glover Symposium.

## Journal of the RSWA

Volume 106 for 2023 was overseen by Editor-in-Chief Arthur Mory, supported by Associate Editors David Haig, Adam Cross, Eckart Håkansson, Penny Wallace-Bell, and Jen McComb. Three research articles, three review papers and one obituary were published

The research articles dealt with Western Australian topics on Holocene sediment dynamics in Geographe Bay, effect of stand density on growth and allometry of Marri, and Permian methane-seep biota. The review papers explored rural change in Western Australia, survey techniques and perceived threats for the Pilbara Ghost Bat, and lunulite bryozoan biogeography.

During 2024, Volume 106 was transferred to a modern publishing platform, new for the Journal (<https://rswa.scholasticahq.com>).

## John Glover Bequest

The second cohort of John Glover Research grants were awarded. These are financed through a gift to the Hackett Foundation to administer the research grants for relevant postgraduate students at all Western Australian universities, including \$10,000 for research support and \$5,000 towards living allowance. The applicants successful in 2023 receive their funding in 2024.

In 2023, the recipients of these research grants were as follows:

- Océane Attlan (UWA) - Temperate Marine Ecosystems Under Tropicalisation: An insight of species redistributions and ecological function changes along the Western Australia coastline
- Abdulla Alson Athif (UWA) - Incorporating the spatial variability of the seafloor to improve coastal wave models
- Alexander Eves (UWA) - Petrogenesis and metallogenic significance of the Speewah Deposit - a world-class Ti-V deposit and associated PGE+Au reef hosted within the Hart-Carson Large Igneous Province, North Australian Craton
- Faith Chen (MU) Comparing methods for monitoring feral cats
- Helen Armstrong (MU) - Taxonomy, Systematics, Biodiversity and Biogeography of the Cryptogonimidae (Platyhelminthes: Trematoda) in Australian Marine Fishes
- Rebecca Quah (ECU) - Improving translocation success for Gilbert's potoroo (*Potorous gilbertii*): Dietary and habitat complexities impact
- Kirrily Hastings (ECU) – Finding space: Breeding territory abandonment in Western Hooded Plover in association with human use of beaches and altered habitat quality'

We look forward to being able to report on recipients of these grants and progress in our future reports.





Océane Attlan (UWA), Eckart Hakansson (RSWA), Hans Lambers (RSWA), Treena Burgess (RSWA) Alexander Eves (UWA), Abdulla Alson Athif (UWA), Rebecca Quah (ECU), Helen Armstrong (MU), absent Faith Chen (MU), Kirrily Hastings (ECU)

## Royal Societies of Australia meeting with Governor General

On 13 November 2023, representatives of Australia's Royal Societies gathered at Government House in Canberra, hosted by His Excellency General the Honourable David Hurley AC DSC (Retd) and Mrs Linda Hurley. Prof Treena Burgess, General Secretary of the Royal Society of Western Australia attended the event. The meeting provided an opportunity for each society to share updates, discuss collaborative initiatives, and reflect on the role of the Royal Societies in advancing science and knowledge across Australia. The event concluded with an informal and uplifting musical moment led by the Governor-General and Mrs Hurley, celebrating the enduring contribution of the Royal Societies to Australian public life.





## End of Year Talk

Professor David Blair: Uncovering Einstein's New Universe

9<sup>th</sup> of December 2022



Einstein envisioned a universe where time and space warp and ripple in response to everything else. These ripples, or gravitational waves, carry messages about the universe and places where space, time, and matter cease to exist. It took a century and 1000 physicists to detect these waves, despite Einstein's own doubts.

The journey began in 1922 with the Wallal Expedition in Australia and continued with the era of gravitational wave astronomy, giving us a new sense to hear the universe. Australia's role was significant, from the Wallal Expedition to the national team that discovered gravitational waves. This story blends inspiration, technical skill, collaboration, and politics, illustrating how science evolves and changes our understanding of the universe.

## Councillors

Since the last AGM, members who have served on Council have been:

•President:	E/Prof. Hans Lambers
•Vice President:	Mr. Michael Tucak
•General Secretary:	Prof. Treena Burgess
•Membership Secretary:	Dr Sarah Sapsford
•Treasurer:	Mr Andrew Lynn
•Editor-in Chief:	Dr. Arthur Mory
•Librarian:	Ms Bobbie Bruce
•Councillor:	Dr. Hugo Bekle
•Councillor:	Dr. Giada Bufarale
•Councillor:	Dr. Eckart Hakansson
•Councillor:	Dr. Justin Parker
•Councillor:	Dr Leon Harris

## Acknowledgements

We thank the Board of the Botanic Gardens and Parks Authority for allowing the Society to hold meetings on the Kings Park premises under their jurisdiction and for providing support for Society activities. The Society is very thankful to our Librarian Bobbie Bruce and the Western Australian Museum who manage and house the Society's library, for storing a sizeable stock of additional copies of the Journal, for assisting the Museum of Victoria to digitise the Journals, for attending to enquiries, and for occasional mailing of publications when required. We continue to be very appreciative of the voluntary services of Dr Peter Williamson who very capably and promptly manages the Society's website. All members of Council are thanked for their voluntary contributions during the year, with particular thanks to the retiring members, Peter Baillie and Penny Wallace-Bell