



The Royal Society OF VICTORIA

Promoting science since 1854

PATRON: The Hon Linda Dessau AC
Governor of Victoria

PRESIDENT: Mr David Zerman

This Month's Events...



8th February: Courtney Ennis
"The Secrets of Titan: Recreating the Cyanide Sky"



22nd February: Duane Hamacher
"Australian Indigenous Astronomy"

February 2018 Newsletter

Print Post Approved 100009741

The Royal Society of Victoria Inc.
8 La Trobe Street,
Melbourne Victoria 3000
Tel. (03) 9663 5259
rsv.org.au

March 2018 Advance Notice:



8th March: Stephen Poropat
"Our Mesozoic Menagerie: Australia's Dinosaurs"



22nd March: Ken Walker
"Citizen Science – the New Force in Biodiversity Data"



The Secrets of Titan: Recreating the Cyanide Sky

Thursday, 8th February 2018 at 7:00pm

Speaker: Dr Courtney Ennis

Research Fellow, La Trobe Institute of Molecular Sciences

The Cassini (NASA) mission to Saturn recently came to a spectacular end with the spacecraft burning up in the gas giant's atmosphere after 13 years of close examination of Saturn's icy moons and rings. The research of Dr Courtney Ennis and his colleagues concerns Saturn's largest moon Titan, a world thought chemically reminiscent of an early-Earth, complete with extended atmosphere and weather driven by small hydrocarbons.

Here in the Titan sky, we have detected quantities of cyanide family compounds seasonally generated by sunlight. Although deadly to much life on Earth, these cyanide species could act as a source of life initiating molecules – such as amino acids and DNA bases – when exposed to Titan conditions. Join astrochemist Dr Courtney Ennis, who will discuss the implications of cyanides to the origins-of-life and present current work underway at the Australian Synchrotron, where a specialised experiment to mimic the Titan atmosphere has been used to recreate its cyanide rain.



About the speaker:

Dr Courtney Ennis is a Research Fellow at the La Trobe Institute of Molecular Sciences and a recipient of an ARC Discover Early Career Research Award in 2014. Courtney's independent research position follows post-doctoral placements at The University of Hawai'i, University College London, and the Australian Synchrotron where he has worked in the field of Astrochemistry. Courtney was awarded his PhD in physical chemistry at The University of Western Australia in 2009.

Across these placements Courtney has devised and constructed a number of laboratory setups to replicate and study chemical reactions observed to unfold in extreme space environments. A main target is to understand the formation pathways of so-called 'Complex Organic Molecules (COM)' – the building-blocks of biological material on Earth. In order to study COM particles and detect them with telescopes, a spectral fingerprint is required. To this end we use specialist equipment and the intense infrared beam at the Australian Synchrotron to capture the spectra of COM material, species that may help untangle the chemical origins for life on Earth.



Places limited, bookings essential! Register online now at <https://rsv.org.au/events/secrets-titan/>, call or email the RSV office to secure your place: 9663 5259, rsv@rsv.org.au

Australian Indigenous Astronomy: 65,000 Years of Science

Thursday, 22nd February 2018 at 7:00pm

Speaker: Dr Duane Hamacher

Senior Research Fellow, Monash University Indigenous Studies Centre

Aboriginal and Torres Strait Islander people developed a number of practical ways to observe the Sun, Moon, stars, and planets to inform navigation, calendars, predict weather, and inform Law and social structure. This knowledge contains a significant scientific component, which is encoded in oral traditions and material culture.

This talk will explore the many ways in which Indigenous Australians encode scientific information in their traditions and some of the ways in which they pass this knowledge to successive generations.



About the speaker:

Dr Duane Hamacher is an astronomer and Senior Research Fellow at the Monash University Indigenous Studies Centre. He specialises in Indigenous astronomical and geological knowledge in Australia and the Pacific. Dr Duane Hamacher is an astronomer and Senior Research Fellow at the Monash University Indigenous Studies Centre. He specialises in Indigenous astronomical and geological knowledge in Australia and the Pacific.



Places limited, bookings essential! Register online now at <https://rsv.org.au/events/australian-indigenous-astronomy/>, call or email the RSV office to secure your place: 9663 5259, rsv@rsv.org.au

Nominations for RSV Membership

Nominations for membership of the Society have been received on behalf of:

The Hon William **FORWOOD**, Strategic Counsel, Stakeholder & Govt Relations
Mr Arthur **HALLETT-WEST**, Doctoral Candidate

Unless Members request a ballot, these will be considered for election by Council and if elected, will be announced at the Ordinary Meeting of the Royal Society of Victoria to be held on 8th March 2018.

Recently elected members who have not yet signed the Society's membership book are invited to attend the 8th February meeting to be formally welcomed as members. **Please inform the office if you plan to attend, so we can prepare your membership certificate for collection.**

2018 Program

Here are our confirmed speakers and topics through to May 2018; further details are being confirmed with partners, or are otherwise subject to the outcomes of our various awards and prizes. All events through to the end of March are currently online at our website and available for bookings.

February

8th – “**The Secrets of Titan: Recreating the Cyanide Sky**” with Dr Courtney Ennis.

22nd – “**Australian Indigenous Astronomy: 65,000 Years of Science**” with Dr Duane Hamacher.

March

8th – “**Our Mesozoic Menagerie: Australia's Dinosaurs**” with Dr Stephen Poropat.

22nd – “**Citizen Science: the New Force in Biodiversity Data**” with Dr Ken Walker.

April

26th – **Annual General Meeting** and 2018 Fellows' Presentations

May

10th – “**Food Allergies in Children**” with Professor Katie Allen.

24th – “**The Science of Sex**” with Professor Cordelia Fine.

As always, you can book our lectures as they become available online at <https://rsv.org.au/events/>. This year we are using **TryBooking** to manage bookings; please let us know if you encounter any problems, as there are always a few teething issues with a new system!

Partnering to Deliver Victoria's Inspiring Australia Program



We're pleased to announce the Royal Society of Victoria will receive \$275,000 in 2018 to connect Victorians across the state with science.

The RSV is delighted to be partnering with the Commonwealth and Victorian Governments to deliver a new Inspiring Australia program, engaging our state's communities in the excitement and opportunities of advances in Science, Technology, Engineering and Mathematics (STEM).

The partnership will connect everyday Victorians with STEM by demonstrating how these skills improve our knowledge of the world around us, inform better decision making, business efficiency and solve some of our greatest everyday challenges in local, national and global contexts. Program development and delivery will foster collaborations with science-focused organisations to connect Victorians with cutting-edge technologies and methodologies.

Chaired by Victoria's Lead Scientist, Dr Amanda Caples, the Victorian Inspiring Australia program will bring together organisations concerned with STEM engagement, citizen science, education and pathways to industry and higher education. The Victorian Government and the RSV have resourced the Victorian program with a new Inspiring Australia Manager and two Officers to support the state's efforts and events across Victoria in August 2018.

Victoria's Inspiring Australia Program complements the Victorian Government's remarkable \$128 million Tech Schools initiative to establish 10 state-of-the-art Tech Schools across

the state, delivering the advanced education and training that Victorian school students will need to flourish in the rapidly changing global economy.

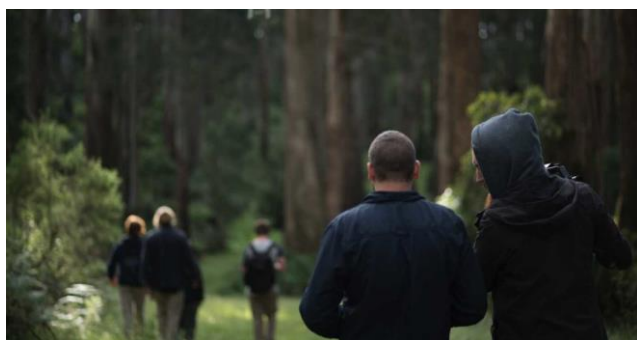
The Whittlesea, Ballarat and Monash Tech Schools are the inaugural partners for the Victorian Inspiring Australia program and will help convene the pilot “Science and Innovation Hubs” for local communities to convene and engage with key scientific discoveries, issues and emerging skills, such as new health technologies and advanced manufacturing. A program of annual talks, forums, industry and careers nights, citizen science activities, kids’ science clubs and Science Week events are all within scope at each Hub.

The Inspiring Australia and National Science Week programs are proudly hosted by the Royal Society of Victoria in 2018, supported through \$225 thousand in program funding through the Commonwealth Department of Innovation, Industry and Science, and a \$50 thousand staffing grant from the Victorian Department of Economic Development, Jobs, Transport and Resources. The work of the new Victorian Inspiring Australia Board began in December, and the program will be underway by February – we will share plans, grant programs and other initiatives as they develop.

Further details are available online from the Society’s website.

Remember the Wild: Community Conservationists Film Screening

Friday, 9 February @ 6:00pm



Join us for the premiere screening of Remember the Wild’s “Community Conservationists” video series.

Supported by the Wettenhall Environment Trust, the goal of Remember the Wild’s Community Conservationists video series is to showcase the breadth and diversity of conservation work being done by the Victorian community. In early 2017, Remember the Wild received 37 fantastic applications from community groups, and

selected five groups to showcase in this first video series. They are:

- Friends of Brisbane Ranges
- Connecting Country
- WOTCH (Wildlife of the Central Highlands)
- Friends of Bats and Bushcare
- Hindmarsh Landcare

The premiere screening at the Royal Society of Victoria is sponsored under the “citizen science” program of Victoria’s new Inspiring Australia initiative, and will feature the five short films, as well as short presentations from each of the five community groups showcased. Following this, food and drink will be available in the Burke and Wills Room, where audience members and community groups can network and discuss all things wild.

Please come along and support some of the fantastic groups working to conserve Victoria’s biodiversity. A post-screening supper and an opportunity to network with the conservation community will be held from 7:00pm in the Burke and Wills Room.



2018 RSV Council Elections



As we have received six excellent nominations for the five positions of ordinary member of Council, an election will be held. Electoral materials accompany this newsletter in the hard copy mail-out to all RSV members with voting status. Please carefully consider the candidates and their statements, then place a FIVE TICKS against your FIVE preferred candidates ONLY.

All Ballot Papers must be returned to the Returning Officer, care of the Royal Society of Victoria, sealed in the envelope provided. Ballot Papers must be received by no later than **3.30pm on Monday, 5th March 2018** to be considered valid.