

NATIONAL SCIENCE WEEK TASMANIA

PROGRAM OF EVENTS | AUGUST 2017

SCIENCEWEEK.NET.AU











WELCOME TO NATIONAL SCIENCE WEEK, TASMANIA



FROM THE MINISTER

Science Week delves into what is, what was and what could be. It is about discovery, understanding, ambition and imagination. It is human inventiveness and achievement in science, technology, engineering and maths that underpins the workings of our world from our basic routines through to the most advanced and creative thinking for the future.

As a state that is proud of being a science and innovation leader, Tasmania is set for yet another great week of thoughts, ideas, collaboration and exploration of how science does, can and will affect our world and way of life.

This year we welcome Dr Karl Kruszelnicki, astrophysicist Dr Katie Mack, and well-known science boffins Dr Graham Walker and Lish Feier as some of our great line-up of guests to Tasmania.

Science Week in Tasmania has something for everyone, with major festivals in all parts of the state. Young Tassie scientists will be bringing fun and interactive demonstrations straight into classrooms all over the state. I also look forward to the first ever BeakerStreet@TMAG after-hours pop-up science bar to bring science to the populace like never before.

Every year it takes a small army to bring to life more than 150 events around the state during National Science Week, bringing science to museums, galleries, cafes, community centres, libraries, workplaces, schools and the Tasmanian Parliament.

Let Science Week inspire you and take you deep into the world of the possible.

HON MICHAEL FERGUSON MP Minister for Information Technology and Innovation



FROM THE CHAIR

Making sense of the world is a vital endeavour for individuals and society, yet one that seems to be increasingly decoupling from reality. These are times when critical news can be dismissed as fake; when truths and alternative facts compete for clicks on social media. Public debate degenerates into baseless opinions and disputes rage on what to do about challenging global issues and a myriad of other problems.

Sometimes we don't need to do anything.

Sometimes it is enough to feel the wonder, the awe and the inspiration of the world around us. But sometimes, because we only have one planet, because justice matters or because simply we have a proclivity to enquire, we do want to know. That's when science comes into play.

Science literacy is a critical tool in knowing. Science literacy can inoculate us to the lies of vested interests and those who wish to obfuscate. We don't have to be a scientist to be scientifically literate - it is open to us all.

A journey into the world of science starts with a question and remains open to ever more questions - endless acts of curiosity and inquiry, of finding stuff out, puzzling over answers and trialling solutions - daily acts of freshness, new experiences, testing truths and dispelling falsities.

This program reveals a wealth of such freshness, wonder and awe. It offers a huge range of science events, workshops. activities and displays right across the state. We are incredibly fortunate in Tasmania to have so many talented scientists; inquisitive people who want to know and share and turn that knowledge into wisdom and action. People just like us. Let's all be part of the biggest Festival in the country -

see you at a National Science week event in Tasmania.

ANDY BAIRD

Chair, Tasmanian National Science Week Coordinating Committee Deputy Director, Engagement Tasmanian Museum and Art Gallery

Key to Events:

Exhibition

Children's University

Community Expo

Competition



B Dinner/Food



Performance



₽ Tour

Workshop

ALL EVENTS ARE FREE **UNLESS OTHERWISE STATED**

Grab the free app!

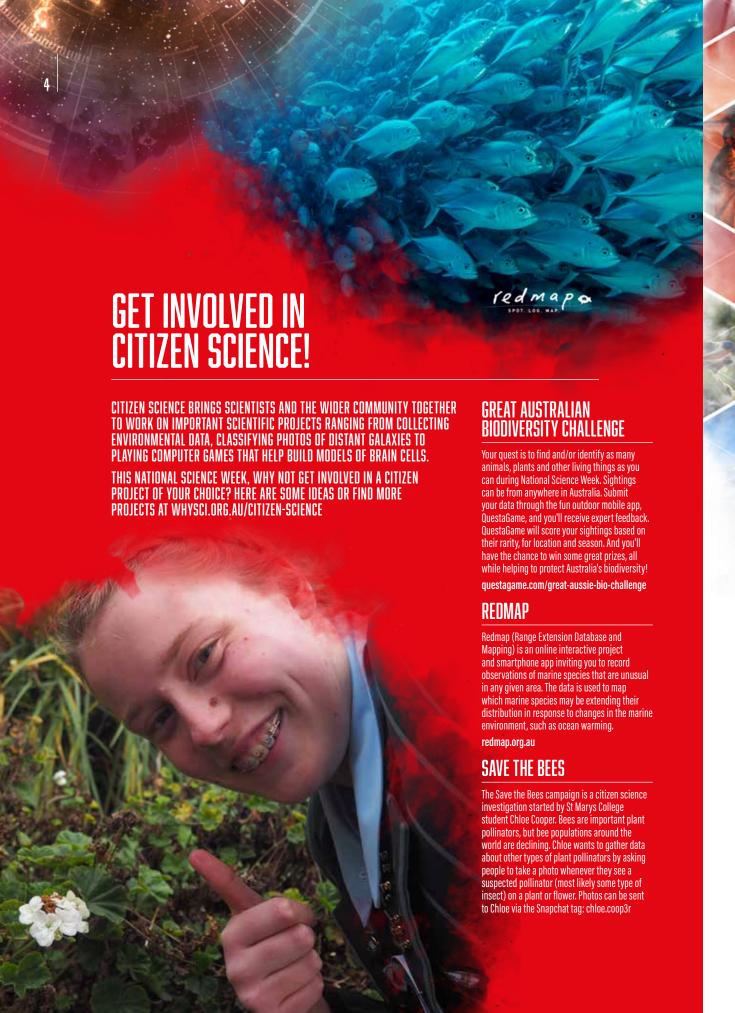




f sciencetasmania natsciwktas #natsciwk

In Tasmania, National Science Week is supported by Inspiring Australia, the University of Tasmania and the Tasmanian Government, and is coordinated by the National Science Week Coordinating Committee (Tasmania) who work with event holders to develop and promote a state-wide program of events.





YOUNG TASSIE SCIENTISTS

THE YOUNG TASSIE SCIENTISTS
HAVE BEEN BRINGING
ENTHUSIASTIC LOCAL
RESEARCHERS INTO THE
COMMUNITY FOR 15 YEARS.

WE SPEAK WITH OVER 14,000 TASMANIANS IN CLASSROOMS AND AT FESTIVALS EACH YEAR, FROM FLINDERS TO BRUNY ISLAND, STRAHAN TO SMITHTON, AND EVERYWHERE IN BETWEEN!

FIND THE YOUNG TASSIE SCIENTISTS AT YOUR NEAREST SCIENCE WEEK FESTIVAL!

- TastroFest in Ulverstone (p20)
- Festival of Bright Ideas in Hobart (p14)
- George Town Science Expo (p19)
- Derwent Valley Expo in New Norfolk (p8)
- Huon Valley Science Expo in Huonville (p9)
- RoboCup Junior State Finals in Launceston (p19)

WORLD'S EASIEST COMPETITION!

WIN SCIENCE BOOKS, SCIENCE WEEK SHIRTS, CAPS AND MORE!

Find the Young Tassie Scientists at a National Science Week Festival near you, and enter the world's easiest raffle! Prizes will be given out at each event!

Can't get to a stall? You still have a chance to win – email youngtassiescientists@ gmail.com and tell us which Young Tassie Scientist you'd like to meet and why!

SPEAKER PROFILE

SHASTA CLAIRE HENRY,

University of Tasmania PhD candidate entomologist, Shasta's insect-centric presentations may make you laugh, squirm or change your perspective on life! She loves insects because they are beautiful, with their shiny carapaces and bright wing patterns. They are tiny but complete, working organisms – it's like holding a galaxy the size of a marble in your hand. Join Young Tassie Scientist, Shasta, during National Science Week in George Town (p19) and in Hobart (p6 and 17).

MEET THE 2017 TEAM AT YOUNGTASSIESCIENTISTS.COM

DR KATHERINE (KATIE) MACK

Dr Mack has studied dark matter, black holes, cosmic strings, and the formation of the first galaxies in the Universe, and welcomes all of your questions! Her popular science writing has appeared in a number of publications, online and in print. She maintains a blog, 'The Universe, in Theory', co-hosts the astronomy-chat YouTube series 'Pint in the Sky' and tweets as @AstroKatie. She regularly appears in public talks, seminars, and science outreach events. Dr Mack's statewide tour of Tasmania is part of the Australian Institute of Physics, Women in Physics lecture series. See p6 for event details.



INALA JURASSIC GARDEN AND NATURE MUSEUM BACKSCATTER -THE VOYAGE OF THE INVESTIGATOR Visit Inala on Bruny Island, overflowing with Gondwanan flora, and the Inala Nature Museum, full of shells, fossils,

INSTITUTE FOR MARINE AND ANTARCTIC STUDIES

An exhibition of the work of a media photo/videographer, choreographer and visual artist following a scientific voyage to Heard and McDonald Islands in the Southern Ocean.

Friday 11 - Sunday 27 August, 9am - 5pm Institute for Marine and Antarctic Studies Gallery 20 Castray Esplanade, Battery Point imas.utas.edu.au

WHAT IS THE JOB OF A MARINE **SCIENTIST?** Ψ**Α**ΑΑΑ

WRITING COMPETITION AND FILM SCREENINGS

AUSTRALIAN MARINE SCIENCE ASSOCIATION

A chance for young minds to meet and mingle with Marine Scientists. Come and see what a marine scientist's day is like, with short field movie screenings followed by 0 and A.

Enter our short writing competition! Students in Years 5 – 10 are invited to compete for the chance to win a GoPro

Saturday 12 August, 10.30 - 11.30am Institute for Marine and Antarctic Studies

20 Castray Esplanade, Battery Point

SCIENCE AND WHALES ENVIRONMENT DEFENDERS OFFICE. TASMANIA

Despite the International Court of Justice ruling that Japan's whaling program was not 'scientific,' whaling in the Southern Ocean continues, Join Dr Nick Gales, Dr Tony Press and Indi Hodoson-Johnston to discuss the lack of scientific credibility

in Japan's whaling program and what can

he done about it. Monday 14 August, 5.30 - 6.30pm Aurora Theatre, Institute for Marine and Antarctic Studies 20 Castray Esplanade, Hobart Gold coin donation

Free tickets available at science-whales.eventbrite.com.au

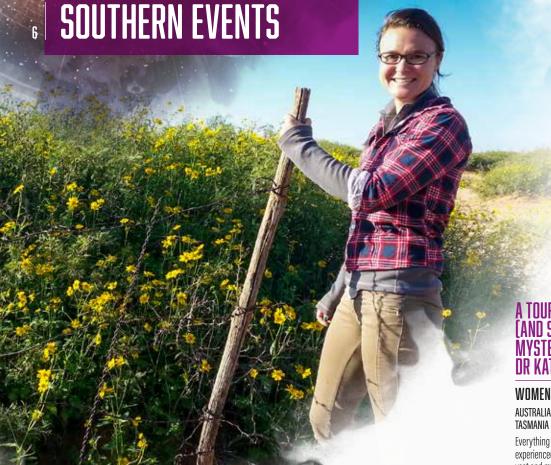
3D PRINTING -THE FUTURE OF **BODIES AND BEYOND** \bigcirc

CREATIVE EXCHANGE INSTITUTE UNIVERSITY OF TASMANIA

Be prepared to be amazed at the work of world-leading scientists and see what their interdisciplinary teams are doing at the cutting edge of 3D printing. Join Professor Dietmar Hutmacher (Queensland University of Technology) and Professor Michael Breadmore (University of Tasmania) to learn about the latest 3D printing innovations solving future challenges in fields such as medicine, technology and engineering.

Monday 14 August, 5.30 - 7pm Stanley Burbury Theatre University of Tasmania 2 Churchill Ave, Sandy Bay

Free tickets, email: UTAS.events@utas.edu.au



THE FUTURE OF THE WORLD'S OCEANS

THE ROYAL SOCIETY OF TASMANIA

Coral reefs in the Anthropocene - what does the future hold? Geoengineering the planet: can we, should we try to offset global climate change? Two fascinating topics exploring possible future scenarios for our world's oceans. Wednesday 2 August, 7.30 - 9pm

Stanley Burbury Theatre University of Tasmania 2 Churchill Ave, Sandy Bay rst.org.au

MINING IN TASMANIA - DINOSAUR OR **DELIVERER?**

AND ENGINEERING

awareness and understanding of current issues around the future of by Louise Saunders (ABC Radio). Complimentary refreshments for the first 50 guests, bar open until late.

Thursday 3 August, 7.30 - 10pm 154-156 Collins St, Hobart

RSVP recommended: bit.ly/MiningTas2017

ACADEMY OF TECHNOLOGICAL SCIENCES

How important is mining in Tasmania? This public forum will raise community mining. The forum will be addressed by experts in economics, sustainability, and environmental impacts, and moderated

Collins Room, RACV Apartment Hotel

A TOUR OF THE UNIVERSE (AND SELECTED COSMIC MYSTERIES) WITH DR KATIE MACK

WOMEN IN PHYSICS LECTURE

AUSTRALIAN INSTITUTE OF PHYSICS,

Everything humanity has ever seen or experienced represents a tiny speck in a vast and mysterious Universe. What else is out there, and how are we figuring it out? Dark matter, dark energy, black holes, the fate of the Universe - delve into some of cosmology's most fundamental questions.

Tuesday 8 August, 8 - 9pm Physics Lecture Theatre 1 University of Tasmania Clarke Road, Sandy Bay aip.org.au/category/tas/

LITTER BUGS % \$ \$ \$ \$ \$ \$

Litter Bugs is an interactive taxonomy

workshop for kids and their families, set

entomologist Shasta, the characteristics of

insects, how to identify them on the fly and

how to make anatomically correct models using materials destined for landfill.

Sunday 6 & Sunday 27 August, 1 - 3.30pm

SCIENCE SYMPOSIUM \bigcirc

We invite the community to join us for this special event. Hear from Year 11 and

12 students, who will be presenting their

Tuesday 8 August, 1.30 - 3pm

Elizabeth College, Undercroft

256 Elizabeth Street, Hobart

elizabethcollege.tas.edu.au

own research into Environmental Science

7 McRobies Road, South Hobart

\$5 per child, parents free

education@resource.coop

RSVP essential:

03 6223 3891

FLIZABETH COLLEGE

and Society.

in a bug filled environment. Learn from

SOUTH HOBART TIP SHOP

DOGS AND THE ENVIRONMENT

There are over 100,000 domestic dogs in Tasmania, that's about one dog for every five people. They are concentrated where their people live, in the suburbs and towns. Unfortunately some carers let their dogs stray into nearby bush and farms. This results in wildlife being disrupted whilst feeding and breeding, as well as being hunted and killed. Can you guess how much waste they produce each year? Inin in to find out.

Thursday 10 August, 7 - 8.30pm Room 304, Level 3, **Engineering Building** University of Tasmania Dobson Road, Sandy Bay RSVP recommended: bobhroddam@yahoo.co.uk

DR KARL'S GREAT Moments in Science \bigcirc

minerals and other fascinating artefacts

of the natural world. Designed across five

acres of gently undulating land accessed

by a winding, wheelchair friendly path,

Inala's Jurassic Garden contains over four

hundred species, thoughtfully planted in

remnants have survived a diverse array of

environmental conditions throughout time.

Friendly staff will be available for Q and A

Sunday 13 August, 9am - 4pm

320 Cloudy Bay Road, South Bruny

inala@inalanaturetours.com.au

throughout the day.

family groups. Observe how these living

TASMANIAN NATIONAL SCIENCE WEEK COORDINATING COMMITTEE

Sometimes described as an answer looking for a question, Dr Karl Kruszelnicki explains science as you've never heard it before! Join us for a whirlwind tour of scientific explanations and bizarre facts. Come and laugh and learn... and don't forget to bring your questions for the Q and A!

Sunday 13 August, 6.30 - 8pm Stanley Burbury Theatre University of Tasmania 2 Churchill Ave, Sandy Bay \$6 entry fee, pre-purchase recommended Tickets available at

trybooking.com/QJOS





camera! Enter online at networktas.com

NATIONAL SCIENCE WEEK 2017 | SOUTHERN EVENTS

ek.net.au/events or download the mobile app on the Apple App or Google Play Sto

PAST, PRESENT AND FUTURE - BIG CHANGES IN BIG PLACES

AUSTRALIAN METEOROLOGICAL AND OCEANOGRAPHIC SOCIETY, TASMANIA

Hear from our expert panel from the Institute for Marine and Antarctic Studies, CSIRO and Antarctic Climate Ecosystems Cooperative Research Centre (ACÉ CRC): Dr Felicity Graham, ice sheet modeller; Dr Mathieu Mongin, Biogeochemical Modeller; and Dr Stephanie Downes, physical oceanographer. They will discuss largescale changes to the Earth's ice sheets and oceans, and the relevance of these changes to Australia. Followed by Q&A session hosted by MC, Dr Tas van Ommen, glaciologist at the Australian Antarctic Division and ACE CRC.

Tuesday 15 August, 6 - 7.30pm Stanley Burbury Theatre University of Tasmania 2 Churchill Ave, Sandy Bay

amos.org.au

OUR WASTE, OUR WORLD, OUR FUTURE \bigcirc

CREATIVE EXCHANGE INSTITUTE. UNIVERSITY OF TASMANIA

Meet the inventors of the ecoFin - creating surfboard fins from waste! These three amazing presentations will help you understand the environmental challenges plastics pose and how, with a little bit of rethinking, plastic waste can be turned into something useful and what we can do to help.

Tuesday 15 August, 5.30 - 7pm Aurora Theatre, Institute for Marine and Antarctic Science 20 Castray Esplanade, Battery Point Free tickets. email: UTAS.events@utas.edu.au

INTO THE VAULTS - AN EVENING AT THE STATE'S 700LOGY COLLECTION 宇

TASMANIAN MUSEUM AND ART GALLERY

Unlock the vault and explore a space rarely seen by the public. You'll have an opportunity to be guided by TMAG scientists while investigating a collection that covers whales to weevils and thousands of animals in between. You'll also hear all about TMAG's latest research on Tasmanian animals.

Tuesday 15 August, 5.30 - 7pm TMAG Rosny Collection and Research Facility 5 Winkleigh Place, Rosny Park RSVP by COB Friday 11 August, enquiries@tmag.tas.gov.au Suitable for ages 13+

KRILL CONNECTIONS -WHY IS HOBART THE KRILL CAPITAL OF THE WORLD?

THE COMMISSION FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES (CCAMLR)

Did you know that Hobart is the global centre of krill science and krill fishery management? Join expert speakers and see live krill in custom-made refrigerated tanks. Learn about the biology and ecology of this tiny Antarctic crustacean and explore human health claims about krill oil.

CCAMLR Headquarters 181 Macquarie Street, Hobart RSVP recommended, free tickets available at bit.ly/KrillTas2017

DERWENT VALLEY SCIENCE EXPO

NEW NORFOLK HIGH SCHOOL

The inaugural Expo boasts an exciting line-up of student-led interactive science activities, displays of student science investigations. University of Tasmania hands-on science activities, fascinating presentations by Young Tassie Scientists and speakers from local industry.

Wednesday 16 August, 1 - 6pm New Norfolk High School 101 Blair St, New Norfolk Stuart Thorn, 0447 884 011

SCIENCE IN COURT - HOW SCIENTIFIC **EVIDENCE CAN CHANGE** THE OUTCOME OF A CASE

COMMUNITY LEGAL CENTRES TASMANIA

Have you ever wondered how scientific evidence is gathered, examined and presented in a criminal trial? Join lawyers Linda Mason and Kim Baumeler: forensic scientist, Dr Michael Manthey; and Chief Justice Allan Blow for a fascinating insight into cases where science was critical to securing a conviction.

Wednesday 16 August, 5.30 - 6.30pm Supreme Court of Tasmania 5 Salamanca Place, Hobart RSVP essential, email: jess.feehely@edotas.org.au

INTO THE VAULTS - AN EVENING AT THE TASMANIAN HERBARIUM

TASMANIAN MUSEUM AND ART GALLERY

串

\$\$\$\$\$

Explore the vault's diverse collection on a tour guided by our scientists. The collection includes historical specimens that date from the earliest days of European exploration to new species discovered this year!

Wednesday 16 August, 5.30 - 7.30pm Tasmanian Herbarium College Road, Sandy Bay RSVP essential, limited numbers: Kim Hill, 03 6226 2635

SCIENCE WEEK OUIZ NIGHT

TASMANIAN NATIONAL SCIENCE WEEK COORDINATING COMMITTEE

Join us for a fine evening of entertainment at the Science Week Quiz Night. Not strictly a science quiz, although there may be some science-y themes... Bring your quizzical buddies to the Royal Tasmanian Yacht Club to feast on hearty meals, arm yourselves with tasty beverages and get your trivia on.

Wednesday 16 August, 6,30 - 9pm Royal Yacht Club of Tasmania Marieville Esplanade, Sandy Bay RSVP essential, register online at: bit.lv/Quiz2017

\$2 cash per person, to be collected



COLLINSVALE PRIMARY SCHOOL

The public is invited to visit our National Science Week Science Fair, with studentled interactive stations, with activities linked in with our science curriculum join us to find out how these activities relate to our community and future learning opportunities. All students are invited to 'dress as a scientist' for the day!

Wednesday 16 August, 12 - 2pm 508 Collinsvale Road, Collinsvale RSVP essential: 03 6239 0176

KEEPING THE WATER CLEAN: SEAWEED SOLUTIONS TO WASTE-WATER TREATMENT O

UNIVERSITY OF TASMANIA

How can we allow the aquaculture industry to expand, but keep water clean enough to release straight into the sea? Professor Rocky de Nys, James Cook University, will discuss the broader application of using seaweeds to clean water, discussing his research with the aquaculture industry in Queensland for the treatment of discharge water from the intensive land-based production of fish and prawns.

Wednesday 16 August, 7 - 8pm Aurora Theatre, Institute for Marine and Antarctic Science 20 Castray Esplanade, Battery Point

Free tickets via events.utas.edu.au

HUON VALLEY SCIENCE EXPO

HUONVILLE HIGH SCHOOL

A community-based science extravaganza including student-led interactive science activities, displays of student science investigations, robotics competitions, Tasmanian Space Program awards, University of Tasmania hands-on science activities, fascinating presentations by Young Tassie Scientists and speakers from local industry.

Thursday 17 August, 1 - 6pm Huonville Primary School 74 Wilmot Rd, Huonville Stuart Thorn, 0447 884 011

CONNECTING INTERNET OF THINGS (IOT) TO WIRELESS **NETWORKS** 08

HOBART MAKERS

IoT's involve the internet, data and everyday objects and are used in everything from cows to mobile phones to aeroplane engines! There are many ways connect IoT devices to the internet. Learn about cheap sensors and controllers you can put in your garden or house and explain the networks you can connect to. focusing on the new LoRa radios for low power and long range.

Thursday 17 August, 6.30 - 9pm \$20 entry or \$60 entry with take-home sensor kit

Kickstart Arts Hall next door to St. John's Cathedral St. John's Avenue, New Town RSVP essential:

hobartmakers.com/scienceweek

LEADERSHIP FOR WOMEN IN STEMM: LESSONS FROM **ANTARCTICA**

UNIVERSITY OF TASMANIA

Women are underrepresented in science, technology, engineering, mathematics and medicine (STEMM) fields worldwide. particularly in leadership positions. Dr Nash will discuss her findings from a sociological study drawing on the experiences of 25 women in STEMM fields who were all participants in a three-week transformational leadership program in Antarctica in 2016. Facilitated by Professor Brigid Heywood, Deputy Vice-Chancellor (Research), University of Tasmania.

Thursday 17 August, 6 - 7:30pm Aurora Theatre, Institute for Marine and **Antarctic Science**

20 Castray Esplanade, Battery Point Free tickets via events.utas.edu.au

SEEING THE INVISIBLE WITH DR ELIZABETH **NEW. RACI YOUTH** LECTURER

ROYAL AUSTRALIAN CHEMICAL INSTITUTE, TASMANIA

Dr Elizabeth New from the University of Sydney will explain the fluorescence of everyday objects - from highlighters to spinach - and the many applications of fluorescence, including to forensic science and medicine.

Thursday 17 August, 6 -7pm Main Lecture Theatre. Chemistry Building University of Tasmania Dobson Road, Sandy Bay Free tickets online at: bit.ly/NewTas2017

ZOOLOGY AFTER DARK



CITY OF HOBART BUSH ADVENTURES

When the sun comes down, the bush comes to life. Learn about Tasmania's fascinating native animals at dusk, when they are most active. Learn some of the skills and techniques that scientists use to study these creatures of the night.

Friday 18 August, 5.30 - 7.30pm

Waterworks Reserve, meet inside the gate on Waterworks Rd, Ridgeway (please park outside the gate)

\$8 per child, supper included RSVP essential: 03 6238 2886

Suitable for children aged 7 to 12 years and their families



SPEAKER PROFILE

JEREMY JUST

0

Well-known for his hugely popular Hobart performances, such as The Explosive Science of Light and Fire and The Cooler Side of Science, Jeremy returns once again to dazzle audiences at the Festival of Bright Ideas. As a passionate science communicator, Jeremy gets a huge amount of enjoyment from sharing knowledge with others, entertaining them, and watching them be amazed by the wonders of science. For show times, see p15.



SOUTHERN EVENTS TASMANIAN BUSHFOODS -**MARINE** GROWING AND **PUBLIC SOLAR SEASHELL** BIOLOGISTS **%** \$\$\$

CITY OF HOBART BUSH ADVENTURES

Do you love the ocean? Would you like to know more about the way the ocean works and the animals that live there? Join Bush Adventures and be a marine biologist for a day, learning techniques to identify marine animals and discover their incredible life strategies.

Saturday 19 August, 10am - 12.30pm Long Beach, end of Beach Rd, Sandy Bay (near Beach House Café)

\$8 per child, light snack included RSVP essential: 03 6238 2886

Suitable for children aged 7 to 12 years and their families

MT PLEASANT **OBSERVATORY AND GROTE REBER MUSEUM** OPEN DAY

UNIVERSITY OF TASMANIA

As part of National Science Week, this family friendly event will include tours of the facility, 3D movies, face painting, rocketry and many other events! All welcome.

Saturday 19 August, 10am - 4pm Mt Pleasant Radio Telescope Denholms Rd. Cambridge events.utas.edu.au

VIEWING DAY

ASTRONOMICAL SOCIETY OF TASMANIA

Public observing of the Sun! Experienced

observers will provide the telescopes and

expert guidance and the opportunity to

view sun spots and solar prominences

The viewings will be part of the wide

with solar telescopes, in complete safety.

range of activities at the Mt Pleasant Radio

Telescope and the Grote Weber Museum

Open Day hosted by the University of

Saturday 19 August, 10am - 4pm

Mt Pleasant Radio Telescope

Denholms Road, Cambridge

Steve Harvey, email:

acrux6495@gmail.com

SCIENCE



CITY OF HOBART BUSH ADVENTURES

Join us for a special young children's sea life discovery program, Engage your curiosity with who's, what's and whys of the animals that you can find the beach, delivered at a level appropriate for young children.

Long Beach, end of Beach Rd, Sandy Bay (near Beach House café)

RSVP essential: 03 6238 2886

and their families

RESCUE TO RELEASE WORKSHOP 8

RAPTOR AND WILDLIFE REFUGE OF TASMANIA

Have you seen an eagle up close? At this workshop, you'll meet our resident eagles, hawks, owls and more as you explore the Raptor Refuge and learn all about the rescue through to eventual release of injured raptors. Check out our huge flight aviaries, flight tunnel and our amazing education centre.

Saturday 19 August, 10am - 12.30pm \$55 adult, \$30 child

RSVP essential: raptorrefuge.com.au Click on How to Visit Us

Saturday 19 August, 1.30 - 3pm

\$8 per child, light snack included

Suitable for children aged 3 to 6 years

EMERGING ENTOMOLOGISTS 🛠 ởở

CITY OF HOBART BUSH ADVENTURES

Some people run screaming when they see me, while others spend their whole lives trying to find me. More than 80% of animal species on Earth belong to a group called 'Arthropods'. Come and uncover the mysteries of this fascinating group of animals.

Sunday 20 August, 10 - 12.30pm \$8 per child, light snack included RSVP essential: 03 6238 2886

Waterworks Reserve Site 9, Waterworks Rd, Ridgeway Suitable for children aged 7 to 12 years

and their families

HARVESTING RESPECTFULLY

SOURCE COMMUNITY WHOLEFOODS

88

Q

Learn how to identify, harvest and prepare Tasmanian edible natives, learn the cultural significance of local bushfoods. and the importance of bushfoods in our environment. You will also get hands on experience while helping to establish a native food garden.

Sunday 20 August, 10am - 4pm 12 French Street, Sandy Bay \$15 Waged, \$10 Concession RSVP essential: orders@sourcewholefoods.org.au 03 6224 0055

TASMANIAN CLIMATE **CHANGE STORIES FORUM**

SUSTAINABILITY LEARNING CENTRE

Take some time to be extraordinary participate in an innovative citizen science communication project. Hear Climate Change stories from an inter-generational climate panel. Help build a living library! Create a one minute Tasmanian climate change video, record your story or interview a local.

Wednesday 23 August, 10.45 - 12.10pm 50 Olinda Grove, Mt Nelson

RSVP by 18th August: sustainability learning.centre@education.tas.gov.au

BUILDING A PET BOTTLE GREENHOUSE 🐒

your own low-cost PET (polyethylene terephthalate) bottle greenhouse and the process of building a greenhouse using recycled PET bottles. Project manager Ben Horne, students from the Huonville High School energy team and conservation volunteers built the for plant propagation. You will see the propagate spring seedlings.

and ioin in, ask questions, share your view, Saturday 26 August, 2 - 3pm **Huon Community Garden Enquiries:**

ben.horne@education.tas.gov.au

HUON COMMUNITY GARDEN Learn the tips and tricks to building

propagate seedlings for spring! Discover greenhouse to create a community space finished greenhouse and learn practical tips and tricks, as well as learning how to

Tennis Court Road, Huonville

PRACTICAL HOME ENERGY ASSESSMENT %

GREENING AUSTRALIA

Practical home energy assessment with a professional assessor to help you increase comfort, save energy, save money and become more environmentally friendly at home. Identify immediate no and low-cost actions you can take now, and visit another house demonstrating the positive impact of energy efficient changes.

Saturday 26 August, 2 - 5pm **Huonville High School** 74-82 Wilmot Road, Huonville RSVP essential: nelssmit@gmail.com Gold coin donation



SPEAKER PROFILE

DISTINGUISHED PROFESSOR DIETMAR HUTMACHER

Visiting Hobart for one night

only, Professor Hutmacher Professor and Chair in Regenerative Medicine at the Oueensland University of Technology, is an internationally renowned scientist. He will be inviting us into his world of 3D bioprinting - the culmination of his expertise is in biomaterials. biomechanics, medical devices and tissue engineering. Don't miss this chance to step into the future with Professor Hutmacher at the 3D Printing -The Future of Bodies and Beyond event, p7



and 12:30 - 1:10pm Rm209, Engineering Building

UNLOCKING THE MYTH

OF THE SCIENTIST -

SCIENCE AND WHY

A warm evening of public discourse

about the perceptions of scientists today

by bringing together experts in science

communication and literacy to share their

thoughts over a pint of cider. Come along

Thursday 24 August, 6 - 8pm

Willie Smith's Apple Shed

2064 Huon Highway, Grove

bit.lv/ScienceMythTas2017

- BOTANICAL ART

WORKSHOP

BOTANIKO

A WONDROUS WORLD

Botanical art serves as an essential scientific record, of special significance,

as changing environmental and climatic

conditions eradicate many species, Unlock

the basic techniques of observation and

recording used in botanical art. Learn

how to apply these techniques to create

a beautiful and accurate piece in a rare

opportunity to work with non-teaching

Saturday 26 August, 11.30am - 12:10pm.

experts! Drawing materials provided.

RSVP recommended:

Q

8

HOW WE VIEW

IT MATTERS

SCIENCE IUNCTION

and drink up!

University of Tasmania Dobson Rd, Sandy Bay

RSVP essential: webmaster@botaniko.org



Details correct at time of printing but are subject to change. For up-to-date information please visit scienceweek.net.au/events or download the mobile app on the Apple App or Google Play Stores.

BEAKERSTREET **@TMAG**

BEAKERSTREET@TMAG IS AUSTRALIA'S FIRST POP-UP SCIENCE BAR, HELD IN HOBART'S ICONIC TASMANIAN MUSEUM AND ART GALLERY.

FRIDAY 18 AUGUST. 6 - 10PM SATURDAY 19 AUGÚST, 6 - 10PM Sunday 20 Augúst, 3 - 8PM

FREE EVENT | BOOK ONLINE: BEAKERSTREET.COM.AU

A SCIENTIFIC WONDERLAND FOR ADULTS FILLED WITH ODDITIES AND INTRIGUE, MICROSCOPES AT THE READY AND TEEMING WITH SCIENTISTS TO CHAT WITH OVER A DRINK. JOIN US FOR ENGAGING TALKS AND PRESENTATIONS BY PROMINENT LOCAL AND VISITING SCIENTISTS, HANDS-ON WORKSHOPS, SCIENTIFIC SHORT FILMS, GREAT LIVE MUSIC SCIENCE STORYTELLING, SCRUMPTIOUS FOOD, PLENTY OF BOOZE. AND SCIENCE-INSPIRED SURPRISES AT EVERY TURN

This event has been created for an adult audience. Some content may be inappropriate for children, but feel free to bring them at your discretion. For event enquiries, contact Margo Adler: margo@beakerstreet.com.au

For program details, additional activities, and to register for talks and workshops, visit www.beakerstreet.com.au or find our event at facebook.com/BeakerSt

This event is supported by



















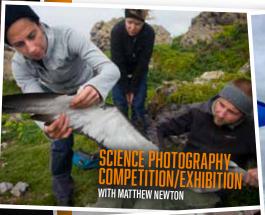


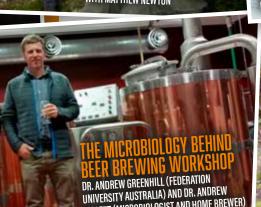






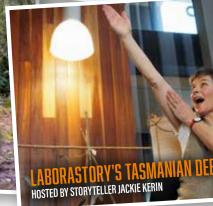












EVENT HIGHLIGHTS

THE 360° CINEMA DOME

Presented by PushStart VR and Crow's Nest Media

WOMEN OF SCIENCE: STORIES OF EXPERIMENTATION, FRUSTRATION, AND CREATION

BEER BREWING Q&A

With the team at Hobart Brewing Co.

Presented by Science in the Pub

AFTER-DARK MUSEUMHACK-STYLE TOURS

Led By TMAG Curators

GUIDED VIRTUAL REALITY HEADSET TOURS With PushStart VR

SEX AND SENSUALITY IN THE GARDEN THE BIRDS & THE BEES, THE FLOWERS AND THE TREES Costa Georgiadis, host of ABC's Gadening Australia

DID YOU CHOOSE THAT, OR DID A MACHINE CHOOSE IT FOR YOU? THE GROWING INFLUENCE OF ALGORITHMS IN DAILY LIFE Dr. Daniel Angus, University of Queensland

WORKSHOP: TURN YOUR SMARTPHONE INTO A MICROSCOPE Hobart Hackerspace

PLUS MORE TALKS AND WORKSHOPS WITH:

Dr. Lisa-ann Gershwin, author of Jellyfish: A Natural History and Stung! UNSW Scientia Professor Rob Brooks, author of Sex, Genes and Rock Roll

Dr. Catherine Byrne, TMAG's senior curator of zoology

Dr. Simon Grove, TMAG's senior curator of invertebrate zoology

Dr Jacqueline Halpin, Institute for Marine and Antarctic Studies

Distinguished Professor Jamie Kirkpatrick, University of Tasmania

Dr. Sally Bryant, Tasmanian Land Conservancy

Dr. Anu Verma, Senior science teacher at the Fahan School

Christopher Leon, producer and composer

John Kean, producer, curator, writer

Kara Spence, Nature. Be in it.

Madeline Green, Institute for Marine and Antarctic Studies Tasmania Parks and Wildlife Service

And more!



A pop-up science bar **Tasmanian Museum** and Art Gallery 18-20 August 2017

ENJOY A DELICIOUS SELECTION OF LOCAL LIBATIONS, A STUNNING LINE-UP OF LIVE MUSIC, AND HAVE A CHAT TO ONE (OR MANY) OF OUR FRIENDLY ROVING SCIENTISTS!

FOR PROGRAM DETAILS AND BOOKING INFORMATION. VISIT WWW.BEAKERSTREET.COM.AU

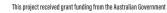
Event Partners











FESTIVAL OF **BRIGHT IDEAS**

12 AUGUST 2017 9AM - 4PM

PRINCES WHARF NO.1 FESTIVALOFBRIGHTIDEAS.COM.AU #FOBITAS17

SCIENCE COMES ALIVE AT THE FESTIVAL OF BRIGHT IDEAS 2017. EXPLORE, CREATE, EXPERIMENT AND BE

AMAZED BY THE WONDERS OF SCIENCE PRESENTED BY TASMANIA'S DYNAMIC SCIENCE COMMUNITY. PACKED WITH HANDS-ON ACTIVITIES, WORKSHOPS PERFORMANCES AND TOURS THIS IS A SCIENCE

SPECTACULAR NOT TO BE MISSED! A FREE EVENT FOR THE WHOLE FAMILY.

WELCOME MESSAGE FROM THE LORD MAYOR OF HOBART, ALDERMAN SUE HICKEY

The City of Hobart is proud to be supporting the Festival of Bright Ideas 2017. This year's festival is bursting with exciting science activities presented by the dynamic Tasmanian science community. You'll make discoveries about the research and technology happening in our State - from the science behind wise wood heater use, to how water is used to create power, and how art and science are pushing creative and scientific boundaries. There will be robots, touch tanks, electronics, virtual reality, the fascinating biodiversity of the Southern Ocean,

I am delighted to welcome all those contributing to this unique Tasmanian event including activity providers, presenters and volunteers who are passionate about sharing their science with

Spend an hour or spend the day at the Festival of Bright Ideas 2017, but be assured you'll go home wanting to know more about the amazing science that surrounds us and keen to play a part in the science of our future.



























THE WORLD IS BETTER THAN YOU THINK

FIITURE CRUNCH

Incredible things are happening on our planet. Diseases are being eradicated, war is decreasing, millions are being lifted out of poverty and billions are gaining access to the greatest information resource humanity has ever known.

But we're not hearing a lot about it.

At Future Crunch, we believe that science and technology are bringing about a world that is more peaceful, transparent and abundant. We use our diverse knowledge to provide unexpected perspectives on what the future looks like to foster intelligent, optimistic thinking about the future, and to empower people to contribute to it.



DR GRAHAM'S BLOW-UP SCIENCE

DR GRAHAM WAIKFR

Can you really launch marshmallows out of a vacuum cleaner, make rockets from common household items, or launch soft toys using liquid nitrogen? Prepare yourself for some seriously mind-bending science, as Dr Graham explodes his way through the chemistry and physics of things that go bubble, boom, bang and occasionally catch on fire.

Dr Graham Walker is the Director of science communication consultancy Science ShowOffs (scienceshowoffs.net) and also works at the ANU National Centre for the Public Awareness of Science. Since 2001, Graham has taken science to over a million people in Australia and around the world using exciting live science shows, TV, hands-on activities, and workshops. Graham strongly believes science and its communication can change people's lives for the better



FIVE FANTASTIC FEMALES AND THEIR SCIENCE SUCCESS STORIES

What is it like to be a woman in science? Do female scientists experience gender bias? If so, what does it look like and what keeps female scientists motivated? At this special Science in the Pub-hosted FoBi event, we interview five female scientists who have taken very different paths, encountered sometimes-surprising obstacles, and ended up in diverse and fascinating careers. Each scientist will speak briefly about her research, and will then be interviewed about her challenge and, passions, and any tips she can provide to other current or aspiring female scientists. Join us for a fun and inspiring journey through the world of five women of science.



NUTRIENT DENSE FOOD

MATTHEW EVANS

Do you like offal? What about broccoli? Why do some people love the food that others hate? Join ethical farmer Matthew Evans as he talks about how flavour is a key indicator of nutrient density, and how agricultural practices can enhance the nutritional value of our food and make it taste better too!

Matthew lives and works on Fat Pig Farm in Tasmania's peaceful and picturesque Huon Valley, where the namesake pigs free-range on pasture, heritage apples ripen on ancient trees, where he has a small market garden and tries to entice milk from a recalcitrant, dairy cow. Matthew is the author of eleven books on food, including the authoritative Real Food Companion and makes regular appearances on television including as presenter of popular SBS series the Gourmet Farmer.

THE SCIENCE OF THE INVISIBLE

Where is air? Everywhere! We're surrounded by air for most of our lives, but how do we understand so much about what we can't usually see? Discover some amazing facts about air and pressure with some explosions, danger,* and liquid nitrogen thrown in for good measure!

Jeremy is a Hobart based science communicator who enjoys nothing more than entertaining people with science. Currently right in the middle of a chemistry PhD, Jeremy still finds time for science outreach and engagement all over Tasmania. He is a mentor for the Young Tassie Scientists program, and has performed exciting science shows for schools and communities across Australia.

*No presenters or audience members will be harmed during the show!



THE SCIENCE (AND SILLINESS) OF PIRACY

PIRATECHNIQUES 101 WITH LISH FEJE (AKA PIRATE CAPTAIN SCUNGE-BUCKET)

Learn how to be a pirate scientifically using the very latest pirate-patented iPatch technology. Identify why pirates are better than parrots, how to use your brain to find treasure, walk the plank without falling in the drink, OH&S and take home your very own Pirate Ship*

Lish Fejer is a science communicator and broadcaster. She spent many years with Questacon in Canberra presenting and developing science shows. She's worked with the Edinburgh International Science Festival climbing up a giant nose, co-presented Carbon Cops on ABC TV, runs a green DIY website 'Green It Yourself' and currently works for ABC radio.

*Pirate Captain Scunge-Bucket may go back on this promise.



EVENTS ON THE LIGHTWAVE STACE

EVENTO DI THE LIGHT WAVE DIADE						
9.20am	10am	11am	12pm	1pm	2pm	3pm
Jeremy Just - The Science of the Invisible	Dr Graham Walker's Blow Up Science	Future Crunch - The World Is Better Than You Think	Lish Fejer - The Science (And Silliness) of Piracy	Five Fantastic Females and Their Science Success Stories	Matthew Evans - Nutrient Dense Food	Jeremy Just - The Science of the Invisible

SCIENCE EXPERIENCES TASMANIA'S BEST SCIENCE ORGANISATIONS COME TOGETHER WITH OVER 45 SCIENCE EXPERIENCES INCLUDING:

MONA 24 CARROT GARDENS

Join us as we meld science and art in an interactive performance space. Share stories and ideas on how we can all work together to make a bright future. We are the future builders!



WICKING DEMENTIA RESEARCH AND **FDUCATION CENTRE, UNIVERSITY OF**

Come to the giant brain! Chat to a brain expert, look at brains through a microscope, or (for grownups) help us research dementia knowledge.



Museums collect for the future but can't collect everything. What should TMAG be collecting today for advancing the science of tomorrow?



TASMANIAN COLLEGE OF THE ARTS AND CREATIVE EXCHANGE INSTITUTE

An art-science exhibition exploring the creative potentials and ethical implications of engineered life.

NOKE WOES

How do we monitor and measure air quality in Tasmania? What can we do to improve our air quality?

CITY OF HOBART

Join the City of Hobart Bush Adventures program to discover the animals, both large and microscopic, that live in Hobart's bushland.

UTAS GAMES LOUNGE

SCHOOL OF ENGINEERING AND ICT. UNIVERSITY OF TASMANIA

An interactive play space where you can come and play games made in Tasmania!



ANTARCTIC CLIMATE AND

Microorganisms need iron - but

where does it come from? And how

much is there? Come hunt for iron

ECOSYSTEMS CRC

in our laboratory!

RADIO AND ELECTRONICS ASSOCIATION OF TASMANIA

Discover how you can communicate using light and see how simple it can be to communicate with satellites.

FUTURE OF WATER

TASWATER

Test your taste buds with our water samples. How sensitive are you to Geosmin and Methylisoborneol (MIB) in the water?

SCHOOL OF LAND AND FOOD, UNIVERSITY OF TASMANIA

Our digital sandpit projects land and water onto actual sand, letting you explore landscape change with the scoop of your hand!

importance, and discover more about equipment used for Antarctic research.



Come and fit a microsensor to a honey bee, try virtual and augmented reality systems, see oceanographic equipment and what it reveals about our oceans, and check out some weird and wonderful specimens from Australia's national fish collection.

UTAS ROBOTICS

Interactive robot demonstrations including our 2017 FRC robot, arduino minibots, LEGO robots, and more.

CHALLENGE EXPEDITION

The Tree House Challenge is all about forests. Hear about what is keeping Andrew up at night as the forest comes to



WORKSHOPS

VIRTUAL WORLDS ON TOUR

Explore the realm of Virtual Reality and take a tour to places you've never been before.

Times: 9.30am, 10.30am, 11.30am, 12.30pm, 1.30pm, 2.30pm, 3.15pm

Duration: 30 mins



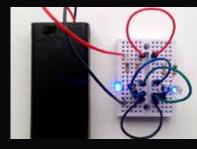
IUG – INSECT PINNING

Do you have a wasp on a windowsill or a beetle in a box? Bring it to FoBI and transform it into a museum quality specimen. Equipment supplied (and limited bugs). Take home: one self-prepared bug in a display

Numbers limited in each session.

Times: 9.30am, 11am, 12.30pm, 2pm Duration: 1 hour.

*Not ideal for small children, adult supervision essential to under 12. Involves sharps (pins) and chemicals (ethanol and naphthalene) under controlled conditions.



ELECTRONICS PROTOTYPING

THE SCHOOL AMATEUR RADIO CLUB NETWORK

Use electronic components to assemble a working circuit. No soldering required. Return the kit for free or take home your creation for \$5.

Times: All day



Calling all LEGO® Master Builders! Come and be creative in our mountains of free play LEGO® or build one of our unique Bricks 4 Kidz® models!



/R NATURE EXPLORER

TASMANIAN LAND CONSERVANCY

The Tasmanian Land Conservancy invites you to step onto their private reserves and explore nature from every angle.

Times: 10am, 11am, 12pm, 1pm, 2pm, 3pm

Duration: 30 mins

HANDS-ON SCIENCE AND

UNIVERSITY OF TASMANIA

Discover the science of renewable energy, take part in a Civil Engineering building challenge and experiment Electronic Toy Bricks (ETBs).

Times: All day

AUSTRALIAN ANTARCTIC DIVISION

Come and test your knowledge of some of the smallest and the largest creatures on the planet during an activity packed exploration of the Southern Ocean

Times: 10.30am, 12pm, 1.30pm and 3pm. Duration: Approx 40 mins.

TOURS

Take a memorable tour through time discovering the fascinating history behind the convicts, early pioneers, bricks, stones, rocks and landscapes of

Tour departs 12.30pm outside Salamanca Arts Centre and returns at 2.00pm.

SCIENCE MYSTERY TOURS

Curious about the science lurking around Hobart's waterfront? Then join one of the Royal Australian Chemical Institute's science mystery tours and discover more about everyday science within walking distance of the docks - several mystery venues to

Register your interest to participate via the tours page on festival website.

Tours depart 11am, 12.30pm and 1.30pm from Princes Wharf No.1

EXHIBITION

Deconstructed reveals some of the science and technology employed in the development of creative art and design works at the Tasmanian College of the Arts. The exhibition includes examples of work from six practitioners working across art-science, data visualisation and engineering.



FESTIVALOFBRIGHTIDEAS.COM.AU

FOR MORE FANTASTIC SCIENCE EXPERIENCES VISIT FESTIVALOFBRIGHTIDEAS.COM.AU

Details correct at time of printing but are subject to change. For up-to-date information please visit scienceweek.net.au/events or download the mobile app on the Apple App or Google Play Stores.

SPEAKER PROFILE

DR STEPHANIE DOWNES

Dr Downes is a Physical Oceanographer at the Antarctic Climate & Ecosystems Cooperative Research Centre in Hobart. She researches topics such as hydrothermal plumes and climate projections of ocean currents and greenhouse gases. Stephanie thoroughly enjoys engaging with schools and the public on any climate science topic. She currently chairs the national Australian Meteorological and Oceanographic Society (AMOS) Education and Outreach Committee, and was a recipient of the acclaimed Australian Institute of Policy and Science Tall Poppy Award for excellence in scientific research and communication. To hear from Dr Downes and the expert AMOS Big Changes in Big Places panel in Hobart, see p8, or Launceston, see below.



PAST, PRESENT AND FUTURE - BIG CHANGES IN BIG PLACES

AUSTRALIAN METEOROLOGICAL AND OCEANOGRAPHIC SOCIETY, TASMANIA

Hear from our expert panel from the Institute for Marine and Antarctic Studies, CSIRO and Antarctic Climate Ecosystems Cooperative Research Centre (ACE CRC): Dr Felicity Graham, ice sheet modeller; Dr Mathieu Mongin, Biogeochemical Modeller: and Dr Stephanie Downes. physical oceanographer. They will discuss largescale changes to the Earth's ice sheets and oceans, and the relevance of these changes to Australia. Followed by O&A session hosted by MC, Dr Tas van Ommen, glaciologist at the Australian Antarctic Division and ACE CRC.

Wednesday 16 August, 6 - 7.30pm Sir Raymond Ferrall Centre University of Tasmania Newnham Drive, Newnham amos.org.au

GEORGE TOWN BIGGER SCIENCE EXPO

PETER UNDERWOOD CENTRE, BELL BAY ALUMINIUM AND GEORGE TOWN COUNCIL

A jam-packed expo with lots to do, see and learn - what scientists really do, insects as food with Bugirl, Tasmania's hydro and solar renewable energies, simulated sailing, and the Tamar River's marine and environment life! With plenty more. Suitable for all ages, free family event.

Wednesday 16 August, 11.30am - 3.30pm **Graham Fairless Centre** George Town Memorial Hall Macquarie Street, George Town 03 6324 3743

ROBOCUP JUNIOR -Tasmanian finals *** ROBOTICS TASMANIA

School students across Tasmania have designed, built and programmed robots to compete against each other at soccer, dance performances and rescue scenarios. Come see some great robots in action!

Saturday 19 August, 10am - 4pm Sir Raymond Ferrall Centre University of Tasmania Newham Drive, Newnham robocupiunior.org.au/tas

SOUTHERN SKIES TASMANIA

ASTRONOMICAL SOCIETY OF TASMANIA

Come and enjoy an evening under the stars . See the hidden and not so hidden gems of the night sky and view the different designs of telescopes used for observing and imaging the night sky.

Saturday 19 August, 7 - 11pm Rosevale Community Hall Bridgenorth Road, Rosevale \$10 per Adult, maximum \$20 Family RSVP essential: bit.lv/AstroRosevale2017

NATIVE PLANT PROPAGATION WORKSHOP ≈ *** A** NATURAL RESOURCE MANAGEMENT NORTH

Learn more about native plants and how

to grow them from seeds and cuttings at this free hands-on workshop, Includes method, timing and care for different native species, and how they can be used to create shelter and habitat at your place, and enjoy a walk through the Windsor Community Precinct's native garden. BYO notebook, secateurs, old seedling punnets and/or ice cream containers (if you have them). Lunch provided.

Saturday 26 August, 10am - 1pm The Stables. Windsor Community Precinct 1 Windsor Drive, Riverside RSVP essential: 6333 7777

SUSTAINABLE HOUSING IN COLD ND TEMPERATE CLIMATES

THE ROYAL SOCIETY OF TASMANIA

0

Dr Mark Dewsbury will discuss the specific requirements of building cold-weather sustainable housing, Tasmanian student Zac Corbett will share a short talk on his time at the London International Youth Science Forum.

Sunday 27 August, 1.15 - 3.30pm **Oueen Victoria Museum and Art Gallery** 2 Invermay Road, Invermay

\$6 Public, \$4 OVMAG Friends, LHS members and bona fide students.

Members of the Royal Society of Tasmania free

RSVP essential: bookings@qvmag.tas.gov.au 03 6323 3798



NORTHERN EVENTS

OVMAG IS HOSTING THE BIG DAY OF SCIENCE, SCIENCE SUNDAY, TWO NIGHTS AT THE MUSEUM AND AN EXTENSIVE SCHOOLS PROGRAM, NEARLY EVERYTHING IS FREE. SO DON'T MISS OUT. BOOK EARLY AND JOIN US FOR AN AWESOME EXPERIENCE!

Visit gymag.tas.gov.au for the full QVMAG National Science Week program, as well as session times and costs. There are too many events in our schedule to list here, make sure you visit the website!

Saturday 12 to Friday 18 August, 10am - 9pm

RSVP essential for some events: bookings@qvmag.tas.gov.au 03 6323 3798







BIG DAY OF SCIENCE

The Big Day of Science is an expo that

highlights the science that takes place in the Museum, the City of Launceston, and partner organisations. Check out Future Launceston, the Crazy Scientist and the Steminists - three very different science-based experiences.

Saturday 12 August, 10am - 4pm Crazy Scientist \$2pp, RSVP essential

*** *** ***

Sunday Science is a perfect way for the family to spend Sunday. Find out about Future Launceston, a glimpse of how the city and region will look in the coming decades. Use the Wishing Tree to tell the City of Launceston your vision for the future. Find out how archaeology will change, and what future animals might look like. Plus, check out the AMAZING insects and spiders that are on display just for Sunday Science.

Sunday 13 August, 10am - 4pm Crazy Scientist \$2pp, RSVP essential

Join us as we turn the lights down and open the doors. Wander the darkened galleries and check out the dinosaurs and animal displays, and the wreck of the Sydney Cove. Sit in on a live hook up to the International Space Station.
Check out the night sky through the
Museums telescopes. The Night at the
Museum is a great evening out for the whole family.

@

Wednesday 16 August, 6 - 9pm

<u>nati</u>ve: an evening OF TASMANIAN FOOD. RESPONSIBILITY AND SCIENCE **119**

Enjoy a progressive menu featuring Tasmanian produce often overlooked in conventional cooking. Hear why we need to remember and utilise what is around us, from the perspectives of a chef, a nutritionist and a scientist. Guests welcome to explore QVMAG following the event!

Wednesday 16 August, 6:15 - 8:30pm Blue Cafe Bar

\$55pp, bar open for refreshments Bookings essential, tickets only available at the Blue Cafe Bar: 03 6334 3133





TASTROFEST

9 4 2 3

JOIN US IN ULVERSTONE
FOR OUR FESTIVAL OF
SPACE LECTURES, SCIENCE
EXHIBITIONS, LIVE SCIENCE
SHOWS AND WORKSHOPS.
COME ALONG AND SEE YOUR
FAVOURITE CHARACTERS
FROM STAR WARS AND DRESS
UP AS YOUR FAVOURITE
SCI FI COSPLAY. YOU WILL
FIND FREE MOVIES AND MOVIE
MEMORABILIA AS WELL AS
MEET STORMTROOPERS FOR
PHOTO OPPORTUNITIES!

Workshops include beginners and advanced astrophotography, learning to use telescopes and kid's rocketry. Learn the basics or get stuck into the advanced theory with talks covering night sky viewings or how you can get involved with the study of super massive black holes.

There will also be planetarium sessions, NASA displays and a Virtual Reality experience.

Our famous Astrophotography and Aurora Gallery will be open to the public from 1 - 26 August at the Ulverstone Civic Centre. Join us for night sky viewings or bring along a blanket for our indoor movie sessions. We have something for everyone! Make sure you visit our website for the full schedule of events!

Friday 4 August, 6 - 9pm Saturday 5 August, 9am - 9pm \$10 Adults, \$5 Children under 12/ Concession

\$20 Family (2 Adults and 4 Children)
Tickets purchased on the Friday night
are also valid for entry on Saturday.

Planetarium, Virtual Reality and Kids Rocketry are additional costs at \$4pp and must be booked online.

RSVP recommended: tickets available at the Ulverstone Visitor Information Centre or online at: bit.ly/2tjP7wd

Ulverstone Schweppes Arena Flora Street, West Ulverstone tastrofest.com

DREAM BIG EXHIBITION

UNIVERSITY OF TASMANIA

Exhibition of winners and runners-up from the north-west Regional Primary Schools 'Dream Big' Project. Come and see what happens when art meets aspiration as students set to work and illustrate their dream careers!

Thursday 6 July - Monday 21 August, 9am - 5pm

Makers' Space Gallery
Makers' Workshop
2-4 Bass Highway, Burnie
Sponsored by Children's University –
Tasmania

CIRCULAR HEAD SCIENCE TRAIL

CIRCULAR HEAD COUNCIL AND CIRCULAR HEAD EDUCATION AND TRAINING CONSULTATIVE COMMITTEE

The Science Trail is a competition open to all children. Follow a trail around Smithton with your class or family to find answers to clues displayed in store windows. Winners are announced at the Circular Head Future Earth Science Gig!

Tuesday 1 - Friday 11 August, 9am - 5pm Smithton High School Circular Head Trade Training Centre Mill Road, Smithton

DR GRAHAM'S LIVE FAMILY SCIENCE SHOW

TASMANIAN NATIONAL SCIENCE WEEK COORDINATING COMMITTEE AND CENTRAL COAST COUNCIL

Prepare yourself for some seriously mindbending science, as Dr Graham explodes his way through the chemistry and physics of things that go bubble, boom, bang and occasionally catch on fire! Expect loads of audience involvement, laughs, exciting experiments and more!

Saturday 12 August, 6 - 7.30pm Leven Theatre, Civic Centre Patrick Street, Ulverstone Free tickets online: trybooking.com/QOEI

CIRCULAR HEAD FUTURE EARTH SCIENCE GIG 288 † ♥↑

CIRCULAR HEAD COUNCIL AND CIRCULAR HEAD EDUCATION AND TRAINING CONSULTATIVE COMMITTEE

A long-running annual community event promoting science and technology in a fun, interactive manner to children and families. Activities, competitions and interactive displays promote the Future Earth organisation's 2025 vision. The Gig includes the hotty contested MacGyver Challenge where teams of three (junior, senior and family) compete to solve a problem using the basic materials supplied in a short timeframe. Winners of school-based competitions, the MacGyver Challenge and the Circular Head Science Irail will be announced on the night!

Monday 14 August, 5.30 - 8pm Circular Head Community and Recreation Centre Grant Street, Smithton

Sharalyn.walters@education.tas.gov.au

RIDGLEY PRIMARY SCHOOL

Classes will provide a scrumptious afternoon tea that reflects their learning about Future Earth, sustainability, recycling, and the environment. We will research how our food impacts on the environment. There will also be an expo with student-led activities, posters, guest speakers, interactive displays and experiments. We invite parents and the community to attend and engage with students and presenters.

Thursday 17 August, 1 - 3pm Ridgley Primary School Gymnasium 904 Ridgley Highway, Ridgley scienceweek.net.au

POP-UP KIDS DIG!

UNIVERSITY OF TASMANIA

Dive into the science of archaeology as we provide a simulated, indoor, archaeological 'dig' to investigate the ways which archaeologists locate, interpret and classify the artefacts they find.

Explore north-west Tasmanian Aboriginal and colonial artefacts and compare the environmental impact of these two distinct archaeologies. Can trash be treasure? It sometimes is to an archaeologist! Consider what future archaeologists might discover about us through the things our society leaves and how 3D printing may influence this

% \$\dots

Saturday 19th August 10.30am - 12pm, and 1 - 2.30pm Makers' Space Gallery Makers' Workshop 2-4 Bass Highway, Burnie RSVP recommended:

Joanna.Gair@utas.edu.au Sponsored by the Advocate Newspaper

₽ 866

THE CLIMATE EXPERIMENTUM SHOW

CLIMATE ACTION NORTH WEST

Five experiments that will shock and amaze, as the presenter, Anton Kole, weaves an amazing story of how greenhouse gases and our climate are interconnected into a futuristic tapestry of change. If you have ever wondered how greenhouse gases change our climate, then this is a show not to be missed!

Saturday 19 August, 2 - 3pm Saturday 26 August, 2 - 3pm Hellyer College 41-43 Mooreville Road, Burnie RSVP recommended: can.west.tasmania@qmail.com

BRIGHT IDEAS QUEENSTOWN



受ぎり

Saturday 12 – Sunday 20 August, 8am - 4pm

Orr Street, Queenstown RSVP: neil.walker@education.tas.gov.au

SEXY SCIENCE -IS OUR WHISKY (AND BEER) ALL ITS CRACKED UP TO BE?

TASMANIAN WHISKY ACADEMY

Join distiller from Sullivans Cove, Heather, and Anne, Director of The Tasmanian Whisky Academy, and explore what makes our beer and whisky so awesome. They will explore the hype and the reality of brewing and distilling - how is it made, why has it made such a splash nationally and internationally, and what does this mean for Tasmania?! Strahan Village View 42 Restaurant will also be offering a special themed dinner!

Friday 18 August, 6.30 - 7.30pm (9:30pm if dining)

View 42 Restaurant, Strahan Village Dinner RSVP recommended: reservations@strahanvillage.com.au 03 6471 4200

STATEWIDE EVENTS

UNIVERSITY OF TASMANIA OPEN DAY *** *** ***

Find out what University life is like and where a degree can take you at this year's Open Day.

Open Day is your chance to visit the University of Tasmania campuses and explore the world-class facilities and services available to you. Come along and meet our academics, current students, graduates and course advisors and find out about our courses, career options and student life. We'll have tours, presentations, entertainment, activities and hands on workshops, so whatever you're interested in you'll find something exciting at Open Day!

SANDY BAY CAMPUS Sunday 30 July, 10am - 3pm Churchill Ave, Sandy Bay

CRADLE COAST CAMPUS Sunday 6 August, 10am – 3pm 16-20 Mooreville Rd, Burnie and West Park, 2 Bass Hwy, Burnie

NEWNHAM CAMPUS Saturday 12 August, 10am - 3pm Newnham Drive, Newnham

INVERESK CAMPUS Saturday 12 August Inveresk Railyards, 4 Invermay Rd, Launceston utas.edu.au/open-day

TASMANIAN SCIENCE TALENT SEARCH

Join us for the display and judging of the Technology and Engineering Challenge entries for both Technology and Engineering.

The Technology Challenge - Mono and multi-winged gliders made from simple materials by students from prep to year 8 will be taking off from an official launch pad to celebrate National Science Week!

The Engineering Challenge - Students from Year 5 – 12 will design, create and test a working invention producing a physical device which either solves a problem in an engineering context or provides an innovative approach to an old problem. Winners of the Engineering category who meet the national standard will be invited to enter in the national BHP Billiton Science and Engineering Awards.

Sunday 13 August, 10.30am - 12.30pm East Launceston Primary School 18 Mary St, East Launceston

Sunday 20 August, 10.30am - 12.30pm Sustainability Learning Centre 50 Olinda Grove, Mount Nelson

SUSTAINABLE AGRICULTURE FOR THE FUTURE - WEBINARS

Join scientists from the Tasmanian Institute of Agriculture for two lunchtime webinars and QandA about the future of agriculture. As agricultural production intensifies around the world, sustainable agricultural and water management will become even more vital for the future of our planet.

Tuesday 15 August, 12 - 1pm Thursday 17 August, 12 - 1pm

Each webinar will be streamed live: livestream.com/UniversityofTasmania and on the Tasmanian Institute of Agriculture's Facebook page: facebook.com/TaslnAg utas.edu.au/tia

DR GRAHAM WALKER

Dr Walker is a popular speaker with audiences worldwide, and has a PhD in science communication from the Australian National University – you could say he is an expert in making learning fun! For show times in Ulverstone, see p20, and in Hobart, see p15.





SOUTHERN TASMANIA EVENTS

Date	Event		Page
Wed 2 Aug	The Future of the World's Oceans - The Royal Society of Tasmania Winter Series 2017	Q	6
Thurs 3 Aug	Mining in Tasmania - Dinosaur or Deliverer?	Q	6
Sun 6 and Sun 27	Litter Bugs	% ** * ~	6
Tues 8 Aug	The Future of the World's Oceans - The Royal Society of Tasmania Winter Series 2017	Q	6
Tues 8 Aug	A Tour of the Universe (and Selected Cosmic Mysteries) With Dr Katie Mack - AIP Women in Physics Lecture	Q	6
Tues 8 Aug	Science Symposium - Stem Gives the Earth a Future.	Q	6
Thurs 10 Aug	Dogs and the Environment	Q	6
Fri 11 - Sun 27 Aug	Backscatter - The Voyage of the Investigator	<u> </u>	7
Fri 11 and Sat 12	Festival of Bright Ideas		3 14-17
Sat 12 Aug	What is the Job of a Marine Scientist? Writing Competition and Film Screenings	Ÿ Å Å	7
Sun 13 Aug	Inala Jurassic Garden and Nature Museum	Ä	7
Sun 13 Aug	Dr Karl's Great Moments in Science	Q	7
Mon 14 Aug	Science and Whales	Q	7
Mon 14 Aug	3D Printing - the Future of Bodies and Beyond	Q	7
Tues 15 Aug	Past, Present and Future - Big Changes in Big Places	Q	8
Tues 15 Aug	Our Waste, Our World, Our Future	Q	8
Tues 15 Aug	Into the Vaults - An Evening At the State's Zoology Collection		8
Wed 16 Aug	Derwent Valley Science Expo	ို့သိ	8
Wed 16 Aug	Krill Connections - Why is Hobart the Krill Capital of the World?	Q	8
Wed 16 Aug	Science in Court - How Scientific Evidence Can Change the Outcome of a Case	Q	8
Wed 16 Aug	Keeping the Water Clean: Seaweed Solutions to Wastewater Treatment	Q	9
Wed 16 Aug	Into the Vaults - An Evening at the Tasmanian Herbarium	- 字	8
Wed 16 Aug	Science Week Quiz Night	Ψ ^ ***	8
Wed 16 Aug	Science Fair!	ို့သိ	9
Thurs 17 Aug	Huon Valley Science Expo	ို့သိ	9
Thurs 17 Aug	Connecting Internet of Things to Wireless Networks	ρ <i>ڜ</i>	9
Thurs 17 Aug	Seeing the invisible with Dr Elizabeth New, Raci Youth Lecturer	Q	9
Thurs 17 Aug	Leadership for Women in STEMM: Lessons from Antarctica	Q	9
Fri 18 - Sun 20	Beakerstreet@TMAG	₩ № 図り寄	12-13
Fri 18 Aug	Zoology After Dark	Å ₩Å * €	9
Sat 19 Aug	Mt Pleasant Observatory and Grote Reber Museum Open Day	亭 徐岭	10
Sat 19 Aug	Public Solar Viewing Day	ሱ የሱ	10
Sat 19 Aug	Seashell Science	% 444 W	10
Sat 19 Aug	Marine Biologists	Å ₩Ĥ * €	10
Sat 19 Aug	Rescue to Release Workshop	88	10
Sun 20 Aug	Emerging Entomologists	% 444 %	10
Sun 20 Aug	Tasmanian Bushfoods - Growing and Harvesting Respectfully	8%	10
Wed 23 Aug	Tasmanian Climate Change Stories Forum	0	10
Thurs 24 Aug	Unlocking the Myth of the Scientist – How We View Science and Why It Matters	0	11
Sat 26 Aug	Practical Home Energy Assessment	88	11
Sat 26 Aug	A Wondrous World – Botanical Art Workshop	**	11
	Building a PET Bottle Greenhouse	<u> </u>	11

Key to Events:

Exhibition

♀ Competition

Festival

Talk

*** Children's University

Dinner/Food

Performance

₽ Tour

Community Expo

Tamily

Outdoor

Workshop

NORTHERN TASMANIA EVENTS

Date	Event		Page
Sat 12 - Fri 18 Aug	Science Open Season		18
Sat 12 Aug	Big Day of Science	ငံလို 🔑	18
Sun 13 Aug	Sunday Science	<u></u> የፎኔ /ዖ ላነስ	18
Wed 16 Aug	Night at the Museum	ሱነ ት <i>ረ</i> ኝ	18
Wed 16 Aug	Native: An Evening of Tasmanian Food, Responsibility and Science	79 O	18
Wed 16 Aug	Past, Present and Future - Big Changes in Big Places	Q	19
Wed 16 Aug	George Town Bigger Science Expo	දුදු එුරු	19
Sat 19 Aug	Robocup Junior - Tasmanian Finals	Ŷ ŶŶ	19
Sat 19 Aug	Southern Skies at Rosevale Tasmania	^**	19
Sat 26 Aug	Native Plant Propagation Workshop	% ÅÅÅ	19
Sun 27 Aug	Sustainable Housing in Cold and Temperate Climates	Q	19

NORTH-WESTERN AND WESTERN TASMANIA EVENTS

Date	Event		Page
Fri 4 - Sat 5 Aug	Tastrofest	🗣 凚 🔼 📆	20
Thurs 6 July – Mon 21 Aug	Dream Big Exhibition	Å ₩Å * 5	20
Tues 1 - Fri 11 Aug	Circular Head Science Trail	ጐ	20
Sat 12 Aug	Dr Graham's Live Family Science Show	<i>₽</i> १ %	20
Sat 12 - Sun 20 Aug	Bright Ideas Queenstown	₩ #	21
Mon 14 Aug	Circular Head Future Earth Science Gig	223 444 🔽	20
Thurs 17 Aug	Ridgely Brain Break and Future Earth Expo	?	20
Fri 18 Aug	Sexy Science - Is Our Whisky (and Beer) All It's Cracked Up to Be?		21
Sat 19 Aug	Pop-Up Kids Dig!	% Å\\\^ &	20
Sat 19 Aug and Sat 26 Aug	The Climate Experimentum Show	<i>ዶ</i> ሱሱ જ	20

STATEWIDE EVENTS

Date	Event		Page
Sun 30 July, Sun 6 Aug and Sun 12 Aug	University of Tasmania Open Day	年為徐	21
Tues 15 and Thurs 17 Aug	Sustainable Agriculture for the Future – Webinars	Q	21
Sun 13 and Sun 20 Aug	Tasmanian Science Talent Search	ന്	21

A BIG THANK YOU TO THE 100+ AMAZING ORGANISATIONS, BUSINESSES AND INDIVIDUALS WHO HAVE CREATED SPECTACULAR, DIVERSE AND INCREDIBLY INSPIRING NATIONAL SCIENCE WEEK EVENTS THIS YEAR!

JOIN US IN 2018!

THE TASMANIAN NATIONAL SCIENCE WEEK COORDINATING COMMITTEE INVITES TASMANIAN BUSINESSES, COMMUNITY GROUPS, SCIENTISTS AND MEMBERS OF THE PUBLIC TO CREATE EVENTS FOR THE 2018 PROGRAM.

Funding of up to \$25 000 is available through the national grant round, which opens again in October and is a wonderful opportunity to bring larger projects to life. Seed funding is available each year, supporting community and school events throughout Tasmania.

Queries to: tasmania@scienceweek.net.au



AND AFTER SCIENCE WEEK...

IND OUT WHAT'S HAPPENING N SCIENCE AROUND TASMANIA

WhySci helps you to be more informed about and involved in Tasmania's vibrant community of scientists, science enthusiasts, innovators and problem solvers.

Never miss a science event again! Find us on Facebook at facebook.com/whyscitas

WhySci is a free community resource - let us know if we can help you advertise your science-related event.

WITH THANKS TO THE TASMANIAN NATIONAL **SCIENCE WEEK** COORDINATING COMMITTEE:

Dr Adele Wilson, University of Tasmania Andy Baird, Tasmanian Museum & Art Gallery Belinda Browning, CSIRO

Brittany Trubody, Central Coast Council

David Maynard, Queen Victoria Museum and Art Gallery Dr Denise Devitt, Science Teachers Association of Tasmania

Dr Deborah Beswick, Elizabeth College

Jenni Klaus, University of Tasmania

Jenny Dudgeon, Sustainability Learning Centre

Dr Lisa Cawthen, City of Hobart

Dr Margo Adler, Beaker Street

Peter Wright, Department of Education

Sarah Bayne, Inspiring Australia

Shae Huddleston, University of Tasmania

Susie Haley, University of Tasmania

Trish Hodge, mina-nina

Dr Vicki Gardiner, Engineers Australia

Wayne Goninon, University of Tasmania

Zoe Kean, University of Tasmania

TASMANIAN STEM EXCELLENCE AWARDS 2017

APPLICATIONS ARE NOW OPEN FOR:

The Premier's Tasmanian STEM Researcher of the Year Award (\$10 000)
The Minister's Tasmanian STEM Innovation of the Year Award (\$5 000)
The Tasmanian STEM Teacher of the Year Awards 2016 for Primary and Secondary Teachers (\$5 000)
The Tasmanian STEM Communicator of the Year Award (\$5,000)
The Tasmanian STEM Young Researcher of the Year Award (\$5,000)

APPLICATIONS CLOSE FRIDAY 29 SEPTEMBER 2017 | APPLICATION FORM AND GUIDELINES: STATEGROWTH.TAS.GOV.AU CONTACT: SARAH.BAYNE@UTAS.EDU.AU