

A pop-up science bar Tasmanian Museum and Art Gallery 16-17 August 2019 6:00PM – MIDNIGHT

FREE ENTRY*

'Some events are ticketed and at other locations

Tickets available at www.beakerstreet.com.au

WELCOME

Welcome to the third annual BeakerStreet@ TMAG, the pop-up science bar and inn for inquiring minds.

The universe is expanding, and so are we. While our core program remains within the Tasmanian Museum and Art Gallery, we've also breached the walls of the museum.

You may have noticed that we've added workshops and events around town this year, and that's because Hobart is brimming with science. It's in our connection to Antarctica, our celebrated produce and fermented beverages, our expansive night skies, our awe-inspiring mountain, and even our handcrafted chocolate. We invite you to celebrate the science in our surroundings and our everyday lives through our hands-on workshops and Out & About program.

We're also partnering with the Australian Academy of Science to deliver a stellar lineup of talks by some of the best scientists you'll find anywhere in the world, all gathered at Hobart Town Hall on Friday 16 August. We've organised a 12-piece band to help you find your way back to TMAG after each talk, because we don't want you to miss any of the excitement there either.

Back at TMAG, there is a lot going on. Mona's slinging cocktails made from invasive species, the Speakeasy in the Bond Store Basement has non-stop live music, Tasmanian Whisky Week is



running a Distillers' Bar, and we have an entire arcade of video games from your childhood (yes, you can play them). And yes, there's science in all of it.

As always, we have a packed program of incredible scientists from around Tasmania, and far beyond, speaking on our Main Stage and roaming the halls of TMAG. You'll find them in some of our excellent new spaces like the Menzies Living Laboratory and the Roving Scientist Bar, and scattered haphazardly throughout the museum with their LED-lit name tags, just waiting for the opportunity to chat. Help them.

Now, get amongst it – this thing only lasts two nights.

Margo Adler, PhD

Evolutionary Biologist and Founding Director of Beaker Street



Michael McLaughlin

As an organisation that has its origins in the collections of Australia's oldest scientific society, it is very fitting that TMAG welcomes you to this most contemporary of science events.

TMAG's Collections engage with a wide range of scientific knowledge, from the ancient understandings of Tasmania's First Nations people to the long-term research that tracks changes in Tasmania's unique and internationally significant natural heritage. As

part of Tasmania's scientific community, TMAG is proud to be partnering with dynamic science communicator Beaker Street in this national celebration of science and the dedicated work of scientists, who have so much to tell us about our past as well as the challenges of our shared future. On behalf of TMAG and our science professionals, welcome to a stimulating weekend of provocative, entertaining and inspiring encounters with science, best enjoyed with a tipple of your choice!

Michael McLaughlin

Manager of Programs and Community Engagement Tasmanian Museum and Art Gallery

GET YOUR BEARINGS

Information and Safety: Event information is available at Information Points in the Courtyard and Link building, or ask event personnel in distinctive National Science Week T-shirts. TMAG staff (dressed in black) are also here to help as well as care for the museum's collection.

Bars: All bars within TMAG take cards only, with the exception of the Moo Brew tap bar, which will accept cash as well as cards. Check out our amazing BeakerStreet@TMAG drinking beakers, available for purchase at our bars, while stocks last. They're real laboratory glassware made of borosilicate glass withstanding temperatures from -20 to 200°C. Otherwise have a BioCup for free to reuse on the night.

Main Stage Talks: Drop in to any of our Main Stage talks for free seating and standing room, but note space is limited and we can't guarantee you'll get in. If you'd like to ensure a premium spot, book a four-person table via www.beakerstreet.com.au.

Events Beyond TMAG: Our workshops, Out & About Events, and Immersive Experiences are ticketed and require pre-booking. The Academy of Science Talks @ Town Hall are ticketed – space is limited and door sales are subject to availability. To avoid disappointment, book now at www.beakerstreet.com.au.

Roving Scientists: The people you see wearing LED-lit name tags are our roving scientists. They're here to chat with you about their work, and they've got their research keyword on their tags. Please talk to them. They're friendly and quite interesting.

Microscopes: You'll find an assortment of microscopes around the event, with a selection of interesting objects and specimens to examine. Please take a look! If you're not sure where to begin, stop in to the Microscope Training Station at the entrance to the Speakeasy in the Bond Store Basement, and feel free to bring your own items for examination.

Food and Drink: Our bars offer an incredible selection of premium Tasmanian beverages, including non-alcoholic options, drinks to warm you up, drinks to inspire contemplation, and drinks to enliven conversation. (Sometimes scientists need a little boost.) Not all drinks are available on all bars, so explore, discover, and report your findings to friends. We also have numerous delicious hot food options, catering for all diets, within the Watergate Courtyard.

Supporting BeakerStreet@TMAG: We are striving to keep entry to this event free and accessible to everyone. If you're able to support us by buying a few drinks, grabbing tickets to some ticketed things, and telling your friends, you'll be helping to secure the future of BeakerStreet@TMAG.

For up-to-the-minute event details, visit www.beakerstreet.com.au or www.facebook.com/beakerst



THE ASK-A-SCIENTIST GAME:

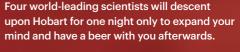
We asked our roving scientists to submit questions, we put their questions on a sheet, and now we're asking you to answer them by chatting to our roving scientists. Pick up a game sheet when you enter the event or from an Information Point, and follow the instructions to go in the running to win some truly worthy prizes.

AUSTRALIAN ACADEMY OF SCIENCE TALKS @ TOWN HALL

Friday 16 August @ Town Hall, 50 Macquarie St

\$10 per talk. Seating is limited and door sales are subject to availability.

Don't miss out – Book your ticket now! www.beakerstreet.com.au/academy-talks



With ABC Radio National MCs Natasha Mitchell and Professor Robyn Williams.



6:30PM - 7:10PM

Ice, Wind and Waves: In search of climate clues in the Southern Ocean

Dr Steve Rintoul FAA, CSIRO Marine and Atmospheric Research in conversation with Professor Robyn Williams AM FAA, Radio National.

How does the fate of Antarctica depend on choices we make today?



5:30PM - 6:10PM

The Chemistry of Life

Professor Martina Stenzel FAA, UNSW Sydney.

As we celebrate the 150th birthday of the Periodic Table, discover its hidden genius and the incredible diversity of elements it describes.



7:30PM - 8:10PM

The Future of Men?

Professor Jenny Graves AO FAA, La Trobe University in conversation with Professor Robyn Williams AM FAA, Radio National.

The male Y chromosome is shrinking and one day might disappear. Will males perish along with it?



8:30PM - 9:40PM

Bringing back the dead: Why extinction should not have to be forever

Professor Mike Archer AM FAA, UNSW Sydney.

The idea of bringing extinct animals, like the thylacine, back to life was once the stuff of science fiction. No longer.

PHENOMENA

Curious things happen at a science bar.



Tasmanian Whisky Week Distillers' Bar @ Bond Store

Taste celebrated Tasmanian whiskies – some unavailable for purchase anywhere else – while having a chat with the distillers about the science behind their craft.



Menzies Living Laboratory

Splice DNA, geo-track penguins, make a pollen-printed work of art, or peer down a microscope with an entomologist. Drop in any time for a mind-blowing range of hands-on science for adults.



BeakerStreet@TMAG Science Photography Prize

@ Bond Store Basement

View the 12 stunning and inspiring finalist images from our annual science photography prize, and vote for your favourite to become the People's Choice Winner.



Mona's Eat the Problem Cocktail Bar

@ Watergate Courtyard

Kirsha Kaechele's Eat the Problem initiative will bring their shiny gold 24 Carrot Gardens van to run an Invasive Species Bar, featuring a bevy of bevvies showcasing delicious ways to use introduced species in a range of cocktails.



Retro Video Game Arcade @ Bond Store

When was the last time you shot at a Space Invader? How do the video games of yesterday hold up today?
Chat to tech experts and game developers, and relive your glory days with Mario, Goldeneye and more – all in the name of science, of course!



Roving Scientist Bar

Scientists like bars. Chat with one in their natural habitat. There will be drinks, and games, and some very good prizes to be won - you might even catch a surprise musical performance.

ON THE MAIN STAGE @ TMAG'S CENTRAL GALLERY

Friday 16 August

6:20PM

Welcome to Country NITA Education



Masters of Ceremonies

Mark Horstman, Australian Antarctic Division and Lucy Breaden, ABC Radio Hobart

SESSION 1: SEATING OPENS AT 6PM



The Gourmet Farmer on Eating in our Modern World Matthew Evans, Fat Pig Farm



The Evolution of Life on Earth: Rethinking the "Boring Billion" Dr Indrani Mukherjee, UTAS

SESSION 2: SEATING OPENS AT 7:15PM



Eat the Problem: Putting invasive species on the menu

Kirsha Kaechele, Mona (Museum of Old and New Art)



Ferment the Pest: The science of cane toad sauce

Adam James, Rough Rice and Dr Fiona Kerslake, UTAS

SESSION 3: SEATING OPENS AT 8:25PM



Why be Happy When You Can be NORMAL?

Dr Barbara Holland,

Presented by the Royal Society of Tasmania



Accelerating
Human
Evolution with
Transhumanism
Meow Ludo Disco
Gamma Meow
Meow, BioFoundry

Sydney



SHORT FILM: 9:55PM - 10:30PM

Push Day

Follow a cave diving team to the edge of the known world in Australia's deepest cave. Screening followed by a Q&A with filmmaker Fraser Johnston, cave diver Stephen Fordyce, and speleologist Dr Stefan Eberhard.

Drop in to any Main Stage talk free of charge. Seating/standing room not guaranteed. To ensure a plush spot, book a four-person table for \$40 a session, or go in the running to win a free table, at www.beakerstreet.com.au

Saturday 17 August





Masters of Ceremonies

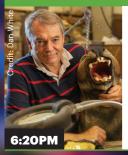
Natasha Mitchell, ABC Radio National and Laura Kroetsch, Dark Mofo

SPECIAL TICKETED EVENT

Ockham's Razor. ABC Radio National

Four scientists share stories on topics from life drawing to the human microbiome. Presented by Bernie Hobbs and recorded for broadcast on ABC Radio National. Book now at **www.beakerstreet.com.au.** \$6/seat. \$40/table. Door sales subject to availability.

SESSION 1: SEATING OPENS AT 6PM



Sex, Songs, and the Sponge: Australia's Guinness Book of Evolutionary Records Professor Mike Archer AM FAA.

UNSW Sydney



and the Future of Coral Reefs Professor Madeleine van Oppen, Uni Melbourne and Australian Institute

of Marine Science

Designer Corals

SESSION 2: SEATING OPENS AT 7:15PM



Gene Drive in the Wild: Shaping the genetic future of life on Earth Dr Lee Ann Rollins, UNSW Sydney



Human as
Ecosystem:
Exploring the
microbiome
of the nether
regions
Dr Tiffanie Nelson,
QFAB Bioinformatics

DEBATE: SEATING OPENS AT 8:25PM



Debate! Only Technology Will Save Us from Ourselves?

Two teams of science superstars go head-to-head to determine the fate of humanity. Moderated by ABC Radio National's Natasha Mitchell, wielding a very large bell. Recorded for broadcast on Science Friction.

HANDS-ON WORKSHOPS @ TOWN HALL UNDERGROUND LOCATED AT 50 MACQUARIE ST, HOBART

Friday 16 August

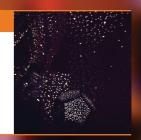
5:30PM - 6:30PM

Build Your Own Star Projector

Hobart Hackerspace

Learn how to build a simple star projector that can display the southern sky across your ceiling.

Tickets: \$40/\$32 concession



7:00PM - 8:00PM

Food Preservation: Drying, chemistry, and zombie prepping

Gail MacCallum and Ian Connellan, Three Capes Gear & Gourmet and Dr Nathan Kilah, UTAS

Learn how to make lightweight food for your next adventure, taste some dried delights, and consider the changes to how we'll grow, distribute, and consume food in a climate-crisis world.

O Tickets: \$20/ \$15 concession





8:30PM - 9:30PM

Beer vs. Cider: The science of booze

Moo Brew and Willie Smith's Cider Makers

Gain insight into the science behind some of Tassie's most iconic beverages, delve into the differences between beer and cider making, and enjoy a unique tasting experience.

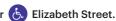
Tickets: \$20/ \$15 concession

SPECIAL TICKETED PERFORMANCE

Saturday 17 August, 10:30PM – 11:30PM @ TMAG's Central Gallery Tickets: \$10

Book now at www.beakerstreet.com.au/alon
Space is limited and door sales subject to availability.

Access Underground through car park via Argyle Street or 長 Elizabeth Street.





All workshops are ticketed and require pre-booking at www.beakerstreet.com.au

Saturday 17 August



5:00PM - 6:30PM

Turn Your Scientific Illustration Into a Beeswax Wrap

Dr Peter Murray and Melanie Best

Learn how to draw a scientific illustration onto calico, and then turn that calico into a reusable and food-safe beeswax wrap.

Tickets: \$35/\$28 concession

7:00PM - 8:00PM

Vine to Wine, via the Lab

Dr Vanessa Dunbabin and Dr Matt Dunbabin, Bangor Vineyard, Annie Baldwin, Vintessential Laboraties, and Keira O'Brien, Winemaking Tasmania

Discover the collision of science, art, romance and passion that is Tasmanian wine. Meet the people who make it all happen, and taste a drop or two.

Tickets: \$20/ \$15 concession



8:30PM - 9:30PM

Wonders of the Tasmanian Night Sky

Steve Harvey, Astronomical Society of Tasmania

Embark on a highly visual tour, exploring the many wonders of Hobart's night sky through interactive planetarium programs.

Tickets: \$15/\$10 concession



TRIGGER HAPPY 'VISUALISED'

Dr Alon Ilsar

Be taken on a next-generation musical journey by instrument designer Dr Alon Ilsar as he commands a holographic world with his custom-built AirSticks. A vivid ride through an audio-visual wonderland, unlike anything you've seen or heard.

IMMERSIVE EXPERIENCES



7.30PM - 9PM, FRIDAY 16 AUGUST

Explore the Night Sky on kunanyi

Walk on kunanyi + Steve Harvey, Astronomical Society of Tasmania

Join us for a small-group bus ride to the Springs on kunanyi / Mt Wellington and wonder at the stars above, with expert guidance from Steve Harvey of the Astronomical Society of Tasmania.

Departing from and returning to the Tasmanian Museum and Art Gallery Watergate entrance.

Tickets: \$50/\$40 concession



1PM - 3PM, SATURDAY 17 AUGUST 1PM - 3PM. SUNDAY 18 AUGUST

Learn to Grow Mushrooms

Meow Ludo Disco Gamma Meow Meow

One of the best and most scientifically comprehensive mushroom growing courses available in Australia, covering the basics of mycoculture and methods that can be performed using equipment that is easy to acquire.

Centre for Learning and Discovery, Tasmanian Museum and Art Gallery.

O Tickets: \$160/\$140 concession



Meet at the TOURS sign in the SW corner of the Central Gallery.

BEAKERSTREET@TMAG - OUT & ABOUT

Venture beyond the walls of TMAG to uncover scientific wonder in some of Hobart's iconic locales. All activities are ticketed and require pre-booking at www.beakerstreet.com.au

Friday 16 August



5:30PM-6:30PM

The Science of Chocolate Making

Follow the cacao bean as it is transformed into delectable chocolate. Taste and experience each step of the journey, and discover the science behind what makes chocolate amazing. A glass of wine will be offered to those 18+.

- @ Federation Artisan Chocolate
- O Tickets: \$30/\$25 concession

Saturday 17 August



Session 1: 4:30PM-5:10PM Session 2: 5:20PM-6:00PM

Antarctic Tales

A chance to explore the Mawson's Huts Replica Museum while listening to tales of Antarctic adventures from people who have survived the cold winters, explored the frozen landscapes, and revelled in the stunning beauty of Antarctica.

@ Mawson's Huts Replica Museum

Tickets: \$6

Saturday 17 August



5:00PM-5:50PM

Weird Science: Stories and wine

Hear tales of discovery, daring and scientific intrigue from some of Tasmania's best storytellers and science communicators, while enjoying a glass of wine (included in your ticket price).

@ The Story Bar at MACq 01 Hotel

Tickets: \$25



12:30PM - 5:30PM

In Darwin's Footsteps

Walk on kunanyi

Retrace Charles Darwin's footsteps along kunanyi / Mount Wellington on this expertguided tour, which ends at the Evolve Bar at MACq 01 Hotel, with a sumptuous cocktail and a chat about evolution.

> Departing from Tasmanian Museum and Art Gallery

O Tickets: \$150/\$140 concession

LIVE MUSIC Put on your dancing shoes.

Friday 16 August



6PM-8PM

EMILY SANZARO

@ Speakeasy





MICHAEL FORTESCUE

Wandering Musician

SOUTHERN LIGHTS BIG BAND

@ Watergate Courtyard



8PM-10PM

DJANGO'S TIGER

@ Speakeasy



SHARMA DUO

@ Speakeasy



10PM-12AM

KIWAVI

@ Speakeasy



8PM-10PM

Rugcutters Jass Band

@ Speakeasy



FRIDAY NIGHT

THE ASSEMBLY STROLLERS

Parading from Town Hall to TMAG







10PM-12AM

MOULDY FIG

@ Speakeasy

AT A GLANCE

Friday 16 August

On the Main Stage @ TMAG's Central Gallery

Session 1: Seating opens at 6pm

6:20PM Welcome to Country - NITA Education

6:25PM The Gourmet Farmer on Eating in our Modern World - Matthew Evans, *Fat Pig Farm*

6:50PM The Evolution of Life on Earth: Rethinking the "Boring Billion" - Dr Indrani Mukherjee, *UTAS*

Session 2: Seating opens at 7:15pm

7:35PM Eat the Problem: Putting invasive species on the menu - Kirsha Kaechele, Mona (Museum of Old and New Art)

8:00PM Ferment the Pest: The science of cane toad sauce - Adam James, *Rough Rice* and Dr Fiona Kerslake, *UTAS*

Session 3: Seating opens at 8:25pm

8:45PM Why be Happy When You Can be NORMAL? - Dr Barbara Holland, UTAS. Presented by the Royal Society of Tasmania

9:10PM Accelerating Human Evolution with Transhumanism -Mew Ludo Disco Gamma Meow

Meow, BioFoundry Short Film: Seating opens at 9:35pm

9:55PM PUSH DAY screening, followed by a Q&A with filmmaker Fraser Johnston, cave diver Stephen Fordyce, and speleologist Dr Stefan Eberhard

Live Music in the Speakeasy @ TMAG's Bond Store Basement

6PM Emily Sanzaro

8PM Django's Tiger

10PM Kiwavi

Australian Academy of Science Talks @ Hobart Town Hall

- 5:30PM The Chemistry of Life -Professor Martina Stenzel, UNSW
- 6:30PM Ice, Wind and Waves: In search of climate clues in the Southern Ocean - Dr Steve Rintoul, CSIRO, in conversation with Professor Robyn Williams, ABC Radio National

- 7:30PM The Future of Men? Professor Jenny Graves, La Trobe
 University, in conversation with
 Professor Robyn Williams, ABC Radio
 National
- 8:30PM Bringing Back the Dead: Why extinction should not have to be forever - Professor Mike Archer, UNSW

Workshops and Immersive Experiences @ Town Hall Underground

- **5:30PM** Build Your Own Star Projector Hobart Hackerspace
- 7:00PM Food Preservation: Drying, chemistry and zombie prepping - Ian Connellan, Gail MacCallum, and Dr Nathan Kilah
- 8:30PM Beer vs Cider: The Science of Booze - Moo Brew and Willie Smith's Cider Makers

Out and About

- 5:30PM The Science of Chocolate Making @ Federation Artisan Chocolate. 3 Victoria St
- 7:30PM Night Astronomy Walk
 Walk on kunanyi. Meet at TMAG
 Watergate entrance

Saturday 17 August

On the Main Stage @ TMAG's Central Gallery

Special Ticketed Event:Doors open at 4:45pm

5PM Ockham's Razor - Hosted by Bernie Hobbs. *ABC Radio National*

Session 1: Seating opens at 6pm

6:20PM Sex, Songs, and the Sponge: Australia's Guinness Book of Evolutionary Records - Professor Mike Archer, *UNSW*

6:50PM Designer Corals and the Future of Coral Reefs -

Professor Madeleine van Oppen, Uni Melbourne and Australian Institute of Marine Science

Session 2: Seating opens at 7:15pm

7:35PM Gene Drive in the Wild: Shaping the genetic future of life on Earth - Dr Lee Ann Rollins, UNSW Sydney **8:00PM** Human as Ecosystem: Exploring the microbiome of the nether regions - Dr Tiffanie Nelson, *QFAB Bioinformatics*

Debate: Seating opens at 8:25pm

8:45PM Debate! Only Technology Will Save Us from Ourselves? -Hosted by Natasha Mitchell, ABC Radio National

9:40PM Science Photography Prize winners announced

Special Ticketed Performance
 10:30PM Trigger Happy
 'Visualised' - Dr Alon Ilsar

Live Music in the Speakeasy @ TMAG's Bond Store Basement

6PM Sharma Duo

8PM Rugcutters Jass Band

10PM Mouldy Fig

Workshops and Immersive Experiences @ Town Hall Underground

- **5PM** Turn Your Scientific Illustration Into a Beeswax Wrap -Dr Peter Murray and Melanie Best
- 7:00PM Vine to Wine, via the Lab
 Bangor Vineyard and Vintessential
 Laboratories
- 8:30PM Wonders of the Tasmanian Night Sky -Astronomical Society of Tasmania

Out & About

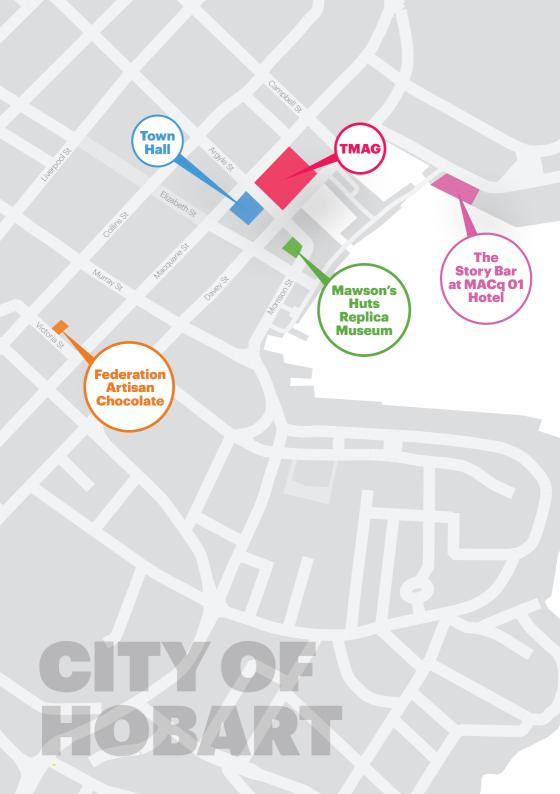
- 12:30PM In Darwin's Footsteps
- Walk on kunanyi. Meet @ TMAG's Watergate entrance
- **1:00PM SAT & 1:00PM SUN**

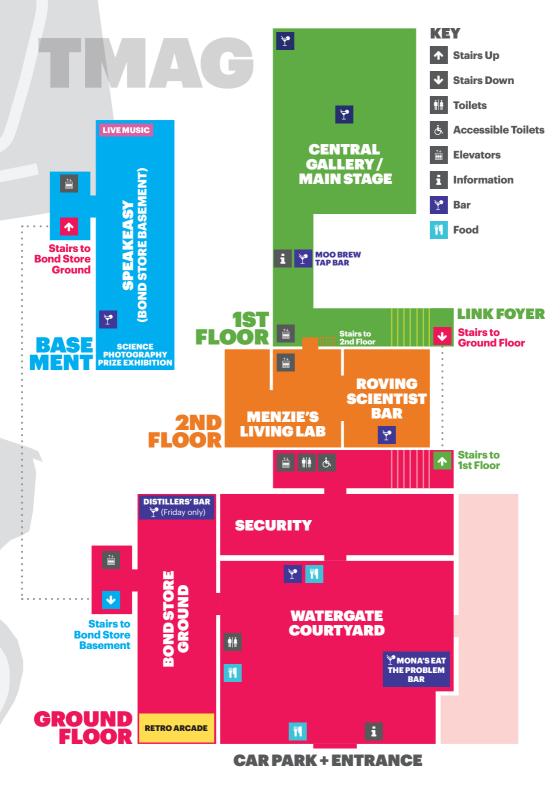
Mushroom Growing Masterclass
- Meow Ludo Disco Gamma Meow
Meow, BioFoundry @ Center for
Learning and Discovery, TMAG

- 4:30PM, 5:20PM Antarctic Tales
 @ Mawson's Huts Replica Museum.
 Corner Morrison & Arayle Streets
- 5:00PM Weird Science: Stories and wine @ The Story Bar at MACq 01 Hotel, 18 Hunter Street

Program times, dates and durations are correct at time of printing, but shizz happens.

Tickets required for marked events via www.beakerstreet.com.au. Pre-registration required for workshops, immersive experiences, Out & About events, and table bookings for Main Stage talks. Pre-registration recommended for Academy Talks @ Town Hall, Ockham's Razor, and Trigger Happy 'Visualised'. Door sales for these events are subject to availability.





EVENT PARTNERS:











EVENT SUPPORTERS:









MEDIA PARTNERS:





FOOD & BEVERAGE PARTNERS:













PROGRAMMING PARTNERS:

































WE'D ALSO LIKE TO THANK:

Gordon River Cruises, Pennicott Wilderness Journeys, Institute for Marine and Antarctic Studies, CSIRO, Peacock & Jones, and Evolve Spirits Bar. Booking partner: Tasmania.com

ACCOMMODATION





BEAKERSTREET@TMAG IS PRESENTED BY:





