



The Tasmanian Geologist October 2021

Future Meetings 2021 Put them in your diary

31st of October GESSS Abstract deadline

6th of November Spring Field Trip to Tasman Peninsula

18th November Eric Roberts (from James Cook University) 'From dinosaurs to hominins: 100 million years of biotic and tectonic evolution in the Cradle(s) of Humankind, Africa'

29-30th November 2021 - Virtual GESSS For eastern Australian States

2nd December - Tasmanian Geoscience Forum at Tullah on the West Coast (see last page to register)

Keep up to date with what is going on at our Division's website: <https://gsatasmalia.org>



NEXT MEETING:

**Thursday 28th
October
6:00 PM**

**AIG-GSA Dinner
Twelvetrees Medal
presentations for 2020 and
2021**

**Cape Adare Pendant
Update by Barbara
Frankel**

**Pickled Pear, University of
Tasmania Staff Club**

Don't miss the geological social event of the year! AIG-GSA Dinner with medal presentations and a dinner speaker.

Your local Tasmanian Division of AIG and GSA are pleased to invite you to dinner. \$50 pp University of Tasmania Staff Club, Alan Bray Room. RSVP by midnight 25th of October to Karin.Orth@utas.edu.au

Enjoy free finger food, a free drink and live music from the Spicy Veg Trio when you arrive. Further drinks will be available for you to purchase throughout the evening.

Watch the presentation of not just one, but two of the GSA Tasmania Division's most prestigious medals, the Twelvetrees Medal for 2020 and 2021 (see below for details)

Enjoy a delicious main course before and dessert after our dinner speaker, Dr Barbara Frankel who will be presenting the latest update on understanding the Cape Adare Pendant.

Twelvetrees Medal



The Twelvetrees Medal was struck in 2009 by the Tasmania Division of the GSA to recognise either

important contributions to the Earth Sciences within Tasmania (including Macquarie Island), or outstanding contributions to Earth Sciences while resident in Tasmania. In the spirit of eminent Tasmanian government geologist, William Harper Twelvetrees (1848 – 1919*), contributions are considered to include meritorious feats of geological exploration in Tasmania or elsewhere, significant published works, or meritorious service to the Earth Sciences. Recipients since its inception over ten years ago have been Keith Corbett (2010), Max Banks (2011), Nic Turner (2012), Clive Calver (2013), David Leaman (2015) and Ron Berry (2016).

Twelvetrees Medal 2021

Congratulations to David H. Green who has been awarded Twelvetrees Medal this year.



David Green in Hobart. (Photo by C. Mordaunt)

David H Green is as local as they come. He was born in Launceston and educated at the University of Tasmania under the chairmanship of SW Carey. David's intellect was not content with his small island home and he expanded his horizons with a PhD at Cambridge in the UK. David came back to Australia, settling in Canberra with strong connections to Tasmania. He worked as a research fellow at the Australian National University (ANU) and was an integral member of the Research School of Earth Sciences. He engaged in novel high-pressure experiments to mimic melting in the Earth's interior. His work has been instrumental in the advance of petrology and mineralogy and over his long career he has made

significant contributions to science on this planet and beyond. On google scholar he currently has over 37,000 citations. As well as science David has run large organisations. He had stewardship of the School of Earth Sciences between 1977 to 1993 and then went on to be the Director of the Research School of Earth Sciences and became Deputy Vice Chancellor of ANU. His meritorious career has resulted in many accolades, prizes and medals. He has been made a fellow of many societies within and beyond Australia, including our own GSA. In Australia, he has been awarded an Edgeworth David Medal (NSW GSA), the Mawson and Jaeger Medals (Australian Academy of Sciences) and the Royal Society of Tasmania Medal. He also has an award from the Geological Society of Japan and the Murchison Medal from the Geological Society of London. In 2006, David's services to Earth Science were recognised when he became a Member of the Order of Australia (AM). We are delighted that David as an influential Tasmanian Earth Scientist has accepted the Twelvetrees Medal.

Twelvetrees Medal 2020

Patrick G. Quilty awarded the Twelvetrees Medal for 2020.

The process for awarding the Twelvetrees Medal to Pat Quilty commenced in 2018. He was very excited to be honoured in this way. Unfortunately, he became very ill and passed away that year. The committee felt that since we had commenced the process and he had accepted the medal we would award it posthumously to him in 2020. We had limited meetings in 2020, so are presenting the medal now.

Patrick Gerard Quilty came to Tasmania from Western Australia and did his PhD at the University of Tasmania in the early 1960s. Over his long career he contributed in spades to the understanding of the geology and paleontology of our Island, it's surrounding oceans and the massive continent of Antarctica to the south of us.

He was Chief Scientist for the Antarctic Division and was active in many associated administrative roles. He had a passion for exploring and was still heading to Antarctica in his mid-60s.



(Pat Quilty in Antarctica, from Papers and Proceedings of the Royal Society of Tasmania, Volume 152, 2018)

After his retirement from the Antarctic Division, Pat was able to concentrate on research, writing and teaching which he did in a voluntary capacity at the University of Tasmania. Pat was also a joiner and was instrumental in the local GSA both as a member and on committees. He helped to organise the Australia-wide Earth Sciences Convention in Hobart in 2004. Pat was also an active member of the Royal Society of Tasmania and always keen to foster good relationships between these societies. His legacy is still with us in many ways, with an important one being his contribution as one of the main editors of the 'Geological Evolution of Tasmania'. This book is the standard text for any Earth Scientist studying or working in Tasmania. His many awards include Member of the Order of Australia (AM), U.S. Antarctica Service medal, Inaugural Distinguished Alumnus of the University of

Tasmania, the Phillip Law Medal of the ANARE Club and recently the Australian Antarctic Medal.

*For more information on T.H. Twelvetrees go to

[T. H. Twelvetrees short biography](#)

Please join us next Thursday at the AIG-GSA Dinner to congratulate Dave and Pat.

Dinner Speaker

Dr Barbara Frankel

The Cape Adare Pendant: A journey through Geology and Victorian era Antarctic history

The Cape Adare Pendant was donated to the AAD in 2018 having been found by a volunteer in a charity shop in east Melbourne in the 1980s. The intriguing label on which the pendant is attached indicates the polished stone is from Cape Adare, Antarctica, 1900.

Before forwarding the artefact to the Tasmanian Museum and Art Gallery for safe keeping, Barbara was asked to verify if the stone could indeed be from Cape Adare. Therein began a journey into early Antarctic expedition history, Victorian era culture, genealogy, and geochemistry. In this presentation Barbara will take you through the results of her further sleuthing since her presentation to the GSA in 2019.



Borchgrevink-led expedition's hut, Cape Adare (from <https://www.wikiwand.com>)



Cape Adare pendant in its original label (Supplied by B. Frankel)

Dr Barbara Frankel



Barbara Frankel has been an Antarctic Glaciologist, Geotechnical and Environmental Manager, and Antarctic history enthusiast throughout her 24 year career with the Australian Antarctic Division (AAD). She graduated from

the University of Technology, Sydney with a B. App Sc. (Hons) and PhD by 1997 with a dissertation on lagoon sedimentation and reef development history of the southern Great Barrier Reef Province. She then became an Ice Core Analyst at the AAD for the next 13 years. Barbara has participated in numerous Antarctic expeditions to drill ice cores, and manage geotechnical and environmental surveys for infrastructure projects. A career highlight was being Deputy Voyage Leader aboard the RSV Aurora Australis to Commonwealth Bay in early 2012 to celebrate the Centenary of Mawson's infamous expedition.

Live Music Spicy Veg Trio



(Photo supplied by the Spicy Veg Trio)

The Spicy Veg Trio is a modern jazz ensemble featuring three of Hobart's finest up and coming musicians; Elijah Davies on guitar, Seb Folvig on bass and Tristan Meffre on saxophone. The three have been performing together in various musical settings since High School and are rapidly becoming some of the most in-demand jazz musicians in the state.

UPCOMING MEETINGS AND EVENTS

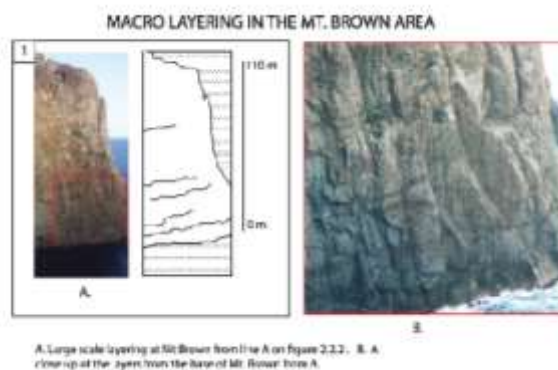
SPRING FIELD TRIP 6th of November



Mark the date in your diary

Register with Phil Sansom
geoedtas@inet.net.au by 3rd November.

This field trip will again take you down to the Tasman Peninsula to view unusual compositional banding within a dolerite sill. Granophyric veins and other odd features guarantee stimulating discussion.



(Mt Brown area, Figure from M. Humphrys 2007 UTAS BSc. Hons thesis)

As an extra bonus we will also examine arcuate ridges of dolerite boulders at elevations up to 30m ASL and speculate on their origin – could they be related to a tsunami impacting this part of southeast Tasmania?

Register your interest by emailing Phil Sansom at geoedtas@inet.net.au by 3rd November. Registration forms and further details will then be sent to participants.

As usual, Phil has arranged perfect weather for this event so come along and enjoy the magnificent scenery and fascinating geology.



(view to Crescent Beach and Standing Point from Mt Brown)

Members are invited to attend the student run student presentations of Virtual GESSS. Two hours on 29th and 30th of November (more details in the student section of the newsletter).



PREVIOUS MEETINGS AND EVENTS

Thursday 23rd September 2021

Patrick Nunn

Traditional Understandings of Geological Phenomena in the Pacific Islands

Patrick Nunn streamed into our meeting from Queensland. This was the first time that we had organised an interstate speaker via the Federal GSA Zoom platform, which not only allowed a live Hobart and online GSA Tasmania Division audience to enjoy his informative talk, but also other GSA members from across Australia.

Patrick told us about some of the oral traditions of hazard information for Pacific Islander people who have lived with earthquakes and volcanism for millennia. One of the main themes is of the demigod Maui (he has other names throughout the Pacific) who ‘fishes up islands’. The fish tail is symbolic of volcanic debris being shot up into the air and raining down to form islands. As well as construction, local stories can relate to sinking or lost islands, sometimes called islands of the dead. Some of these may relate to sea level rise, earthquake activity or mass wastage such as largescale landslides or sector collapse. The power of the stories according to Patrick is that they can retain and impart hazard information through generations. An example he gave was of a tsunami that struck Pentecost Island in Vanuatu in 1999. Of the 350 people in Baie Martelli only 3 died. Eventhough there had not been any tsunami in the lifetimes of these people, they understood the warning signs and so sought higher ground before the waves of the tsunami struck the island.

Detailed studies can help to flesh out the geology and risks in many areas of the active Pacific Rim and island chains that impact on the lives of the Pacific Islanders. Understanding traditional knowledge will help the locals take control of risk management and represents a window into former worldviews.

If you missed out on this excellent presentation GSA have captured it. You can catch it here by clicking on the image below from his talk.



ONLINE AND RECORDINGS

As well as Patrick Nunn's talk there are many others now available online. Catch up on:



This Photo by Unknown Author is licensed under [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/)

VOLCANO CHAT

Rebecca Carey has recorded a recent conversation she had with Professor Bruce Houghton about the new eruption on the Reykjanes Peninsula Iceland that commenced in March

this year. To hear some of Bruce's insights and view his video of the eruption go to our website www.gsatasmania.org

While we are thinking about volcanoes:

Rebecca Carey presented a talk for the Royal Society of Tasmania on underwater volcanism on the 3rd of October. The presentation is now online. To view click on image below



Another Royal Society of Tasmania presentation of interest is recent UTAS PhD graduate Adam Abersteiner August talk on kimberlites. Click on the image below to access this talk.



12th of September, Inveresk

Sebastien Meffre presented at the second joint meeting between the Tasmania Division of the GSA and the Royal Society of Tasmania, Northern Branch. His talk 'East Meets West' is a great summary of the geology of Tasmania. It should be available soon on the Royal Society YouTube channel.

24th of June 2021, Hobart

Tasmania's growing record of landslide injuries and fatalities by **Nick Roberts** (MRT) Nick's talk was successfully recorded. If you want to catch up on this presentation, please send an email to Karin Orth for access.

Karin.Orth@utas.edu.au

27TH June 2021, Inveresk

100 years of the Royal Society of Tasmania's Northern Branch.

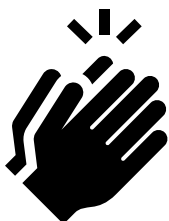
Ralph Bottrill's 'What Made Tasmania' presentation is now available via the RST YouTube channel. Click on the image below to hear Ralph's presentation



AEESC2021 abstracts online

Find the abstract of those papers you enjoyed or missed at the AEESC2021 on the GSA website at [Publications \(gsa.org.au\)](https://www.gsa.org.au/Publications)

Other Awards



Some of our members have been honoured by other organisations for their outstanding contributions.

Congratulations to Emeritus Professor David

H. Green

The Società Italiana di Mineralogia e Petrologia has awarded David H. Green the prestigious Honorary Fellowship for 2021. As we know David is a high profile researcher who has made fundamental advances in understanding the petrology of the Earth. He is currently an Earth Sciences Honorary Research Associate and Emeritus Professor at the University of Tasmania. The SIMP-Honorary Fellow Award is bestowed “in recognition of an internationally relevant scientific and organizing contribution to the advancement of the mineralogical and petrological sciences”.

Congratulations to Associate Professor Rebecca Carey

Rebecca has been awarded the 2020 Dorothy Hill Medal from the Australian Academy of Science. The annual award recognizes outstanding young women Earth scientists. The medal is still in Canberra, but Rebecca received a certificate from Governor of Tasmania, the Honourable Barbara Baker AC, at Government House in Hobart during September.



Rebecca Carey on the right and Tasmanian Governor Barbara Baker with Rebecca's certificate marking her attainment of the Dorothy Hill Medal 2020. (Supplied by C. Mordaunt)

Excellent Innovations by Dr Michael Roach

Michael Roach has been building amazing open source educational tools (Ausgeol.org) and stellar detailed virtual field trips (some for GSA). His contributions have been recognised with the University of Tasmania College of Science and Education's Innovation Award for 2021.

Well done Indrani Mukherjee

Indrani has received the College of Science and Engineering Early Career Researcher Award 2021, recognizing her contributions and passion about conditions of early Earth and evolution of life.

INCLUSION, EQUITY AND DIVERSITY



Thankyou to Indrani. She was instrumental in organising last month's meeting with Professor Patrick Nunn as part of her new role as GSA

Tasmania Division's Inclusion, Equity and Diversity (IED) co-ordinator. Her role involves advocating for inclusive programs and

organising local events that showcase diversity, equity and inclusion.

If you have any suggestions, feel free to contact Indrani with your ideas at Indrani.Mukherjee@utas.edu.au

STUDENTS

Virtual GESSS 2021 will be held online over two 2-hour sessions on the 29 and 30 November.

What is GESSS? Well it is a student run, with all student presentations conference for Earth Sciences.

Presentations will given by earth science students across multiple fields and will be either 10 minutes (8 minutes talk plus 2 minutes Q&A) or 3 minutes (2 minutes talk plus 1 minutes Q&A) each in duration

Time:

1.00pm - 3.00pm AEDT (ACT, NSW, Tas, Vic)
12.30pm - 2.30pm ACDT (SA)
12.00pm - 2.00pm AEST (QLD)
11.30am - 1.30pm ACST (NT)
10.00am - 1.00pm WST (WA)

Support: Virtual GESSS is sponsored by Geoscience Australia

Cost: Students, GSA members and Geoscience Australia staff attend for free. All other members of the public can attend for just \$10.00

Abstract submissions: [Click here](#) to submit before the 31st October. Submissions are open to any **students** conducting research on Earth Sciences, including undergraduates, honours and postgraduates

Keynote Presenters:

Morgan Cox (Curtin University)
Sarah Kachovich (ANU)

Registrations: [Click here](#)



Student Membership

Student members are important to us. Many of you become members through the ‘The Geological Evolution of Tasmania’ book special (see below if you are interested in this). But there are many more benefits to membership. Here are some comments from Olivia Wilson, who completed her Honours last year and is now employed by Entura in Hobart. She was awarded \$1000 from the GSA Endowment Fund for her Honour’s work in 2020 and even managed to get out in the field to spend it!

‘Being a student member of the Geological Society of Australia enriched my experience of studying geology. Especially important to me were the opportunities to make connections and learn about the research of other society members. As a student, it is also invaluable to have an environment in which you can interact with geoscientists from all career stages – hearing their experiences allows you to develop your own career aspirations. GSA membership also demonstrates that you have a level of passion and commitment to your field beyond the compulsory courses in your degree, helping your resume stand out as you transition to professional life.’



Olivia Wilson (supplied by O. Wilson)

Student Membership special book deal

There is a special book deal for the Geological Evolution of Tasmania (Special Publication 24 of the GSA) if become a member of the GSA.

You get **one-year free GSA membership** and the book at member prices (\$99). Download and fill out the GSA Membership form from the GSA website. <https://www.gsa.org.au/>

Once lodged you can take a copy to Caroline Mordant (details below) for your book purchase. Any question please contact Membership Officer Rebecca Carey (Rebecca.Carey@utas.edu.au) .



The flagship publication of the Tasmanian Division of the GSA, “The Geological Evolution of Tasmania” (Special Publication 24 of the GSA) is available for ordering. All details are available on a specific part of the Utas CODES web site:

http://www.utas.edu.au/_data/assets/pdf_file/0003/55313/Flyer_Order.pdf

Copies of the book can be obtained personally from Caroline Mordant (publications@CODES.utas.edu.au) or phone on +61 3 6226 7537.

Members Price is A\$90 + GST + postage where appropriate. Postage can be avoided by buying in person from Caroline Mordant in Earth Sciences (University of Tasmania). The book is also available at Fullers Bookshop and at TMAG in Hobart, and in the Devonport Bookshop, Devonport. Prices at these sites may vary from GSA prices, and the member price is not available at these sites either.

OTHER EVENTS OF INTEREST

The CODES Geometallurgy short course is running it's first week run online BUT it is split over two separate weeks:

Week One: 18-23 October

Week Two: 15-19 November

The short course is fully online, noting that sessions will be delivered in English via Zoom and occur between 9am – 5pm AEDT (UTC+11).

The flyer for the short course can be found here:

[UTAS Geometallurgy Shortcourse](#)



Industry participants are welcome to take part for the second week or for select days. Contact:

Dr Robert Scott Masters Coordinator,
CODES Private Bag 79, Hobart 7001,
Australia Tel: +61 3 6226 2786 Email:
CODES.Info@utas.edu.au
Robert.Scott@utas.edu.au

Sunday 24th October 2-5pm. 'Science in the Park' at Tolosa Park, Glenorchy. There will be guided geology walk along one of the fire trails, lots of science and if weather permits dinosaurs! [Science in the PARK 2021 | Science in the Pub Tasmania \(scipubtas.org.au\)](#)

Saturday and Sunday 6th and 7th of November
If you are sad about the last minute cancellation of the Unconformity Festival and want an excuse to be on the West Coast try this:



Supplied by R. Bottrill

Final Words



Supplied by N. Kemp

GSA Tasmania Division Committee

Chair: Dr Karin Orth
Vice Chair: Dr Matthew Ferguson
Secretary: Grace Cumming
Grace.Cumming@stategrowth.tas.gov.au
Treasurer: Dr Andrew McNeill

Committee Members:

Sheree Armistead
Rebecca Carey (Membership)
Acacia Clark (Student Rep)
Jacqueline Halpin
Claire Kain (Geotourism)
Peter McGoldrick
Sebastien Meffre
Indrani Mukherjee (IED)
Phil Sansom (Education)

Geological Society of Australia website:

www.gsa.org

and our own website

<http://www.gsatasmania.org>

Any news, announcements or interesting photographs of Tasmanian Geology you would like to include in the next Newsletter, please send it through via email to karin.orth@utas.edu.au prior to the 10th of November 2021. Anything for the website, facebook or Instagram please send to the team at gsa.tasmania@gmail.com

Tasmanian Geoscience Forum 2021



GSA Tasmania Division, AusIMM and AIG are proud to bring you the

11th Tasmanian Geoscience Forum

WHEN

**Thursday 2nd of December 2021
9AM – 5 PM**

VENUE

**Tullah Lakeside Lodge
Cnr Meredith Street &, Farrell Street Tullah TAS 7321**

**Possible workshop on Wednesday afternoon run by MRT
and
Two Field Trip options on the Friday 3rd Dec**

**Registrations are open
Please visit the website below for more information**

[Tasmania Branch - Geoscience Forum 2021 \(ausimm.com\)](http://ausimm.com)