



RGSQ Bulletin

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Patron: H.E. Paul de Jersey AC, Governor of Queensland
President: Dr Iraphne Childs

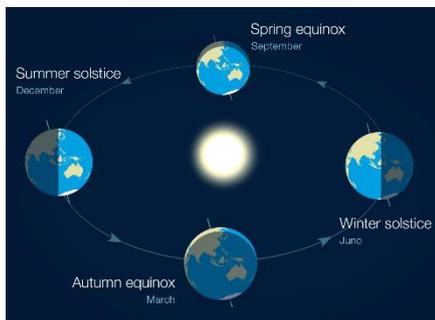
From the President

Dear Members, I hope you are managing to keep well during the colder weather. Although we are now in winter and Brisbane recently experienced a cold snap, the winter solstice has passed, so we can soon look forward to days getting longer again.

Celebrating the Winter Solstice:

the solstices are the two times each year when the tilt in Earth's axis lines up most with the direction of the Sun, creating the maximum

difference between daylight and night-time hours. **The winter solstice** is the day of the year that has the least daylight hours, the darkest and shortest day of the year. In 2021 the winter solstice in the southern hemisphere occurred on Monday, June 21. Across Australia various communities mark the winter solstice with feasting and ceremony.



Hobart's DARK MOFO festival delves into centuries-old winter solstice rituals, including a mid-winter feast and colourful parade



at the Hobart waterfront. The annual Hobart nude Solstice Swim usually has more than 1000 people dropping their clothes and inhibitions to welcome back the light after the longest, coldest night in the nation. Brrrr!! In Brisbane, the **Northey Street city Farm** had a Winter Solstice festival on 19 June 2021 with a bonfire, solstice ceremony, lantern parade, music, dance and lots of food.

Geographical conferences: The Institute of Australian Geographers & New Zealand Geographical Society (IAG/NZCS) combined conference is in Sydney 6–9 July 2021. The conference theme, *Remembering, Reimagining Geography*, considers how geography evolved, its influences on the human world and the contribution the discipline can make to more just and sustainable futures.

The Geography Teachers Association conference (**GTAQ**) will be held at the QUT Kelvin Grove campus in Brisbane on 31 July; conference theme is *Visible Geography*.

At RGSQ in July we present a very important public lecture ***Bushfire - an Intensifying Risk for Queensland*** by **Lee Johnson AFSM FIFireE Commissioner (Ret) QFES on 6 July**. Hope you can attend either in-person or via zoom. To register, visit <https://rgsq.org.au/event-4343673>.

TAAC's ***Christmas in July in the Sunshine Coast Hinterland*** on 13 July is already fully booked out. A reminder that our trips and activities are popular so keep an eye out on the website for events that you may wish to join.

The 2021 AGM will be on 19th October. I hope that we will be able to hold this important meeting at our premises this year, rather than by zoom. Although still months away, I invite members to consider nominating for the Society's Council. This is my 4th consecutive year as President and under our Constitution the limit is a maximum of four (4) consecutive one-year terms to serve in this role. So, the position of President will be vacant at the October AGM. Please contact me at i.childs@uq.edu.au if you would like any further information on any of these roles.

Enjoy the Brisbane winter!
Best wishes, Iraphne Childs, President

References

Geoscience Australia. Summer and Winter Solstice.

<https://www.ga.gov.au/scientific-topics/astronomical/summer-and-winter-solstice>

BOM *Solstices and equinoxes: the reasons for the seasons*, 21 June 2018

<http://media.bom.gov.au/social/blog/1762/solstices-and-equinoxes-the-reasons-for-the-seasons/>

Northey Street City Farm (2021)

<https://www.nscf.org.au/solstice-festivals>

Dark Mofo 2021 <https://tasmania.events/event/13161855-a/dark-mofo-2021#gallery-1>

Image sources:

Solar diagram: Media BOM, 2018

Dark Mofo: Dark Mofo 2021

Monthly Lecture

Tuesday 6 July | 7.30pm-9pm

Bushfire - an Intensifying Risk for Queensland

by **Lee Johnson AFSM FIFireE**
Commissioner (Ret) QFES

Location: RGSQ premises (Level 1, 28 Fortescue St, Spring Hill, Qld) and via Zoom

Registration essential: <https://rgsq.org.au/event-4343673>



The presentation will cover the Climate Science factors influencing changes to the level of risk that Natural Hazards present to Queensland with a focus on why Bushfire is becoming more concerning. Lee will also discuss the history of and the current preparedness levels in Queensland, as well as what can be done to better prepare the Queensland

community with a focus on the role that mitigation plays in keeping us safe; how better co-ordination between Fire Services, Government land agencies such as QPWS (Queensland Parks and Wildlife Service), private land holders and the use of practices used by First Nations people contribute to better land management.

Bio: Lee Johnson AFSM FIFireE served as Commissioner of the Queensland Fire and Emergency Services for 13 years (2002 – 2015). Having joined the fire service in Townsville in 1975 where he worked for 10 years as a firefighter before transferring to the Gold Coast as a Station Officer, Lee was promoted to Rockhampton in 1988 as the Deputy Chief Officer and 1990 District Commander. In 1997 he was appointed as an Assistant Commissioner for the then Queensland Fire and Rescue Authority in Central Region and later, in 2001, Brisbane South Region. During his time as Commissioner, Lee played a key role in the development of Urban Search and Rescue capability within QFES and nationally, working closely with Emergency Management Australia (EMA). Lee is a strong advocate for enhancing Building fire safety. Lee has extensive experience in command and control and chaired the AFAC Committee for the renewal of the Australasian Inter-service Incident Management System (AIIMS). He has been a speaker at International Fire and Safety Conferences in Asia. In 2013, Lee was inducted as a Fellow of the Institute of Fire Engineers having been a member since 1976. Lee served as President of the Australasian Fire and Emergency Services Authorities Council (AFAC) for 4 years (2009 – 2013) and as a Director on the Board of the National Aerial Firefighting Centre (NAFC) from 2003-2015. Lee is currently a Board Director of Bushfire and Natural Hazards Co-operative Research Centre (BNHCRC -2003) and is a founding member of Emergency Leaders for Climate Action (ELCA). Lee currently works as an advisor to Locatrix a fire safety and indoor mapping company.

Please note: The lecture may be recorded. If you have any questions, please email us at info@rgsq.org.au.

WHAT'S ON

For all upcoming RGSQ events, please visit the Society's website www.rgsq.org.au under 'What's On'.



Join the Treks and Activities Committee!

Each year the RGSQ provides a programme of trips and activities where members and their guests are able to engage with Geography.

The planning and co-ordination of such a programme is undertaken on behalf of the Society Council by the Treks and Activities Committee (TAAC).

TAAC meets four times a year for approximately two hours per meeting to initially plan and then coordinate at least one monthly activity. The ideas and general experience of ordinary members is invaluable in providing a varied selection of outings for Society members to enjoy and expand their knowledge while enjoying the company of like-minded people.

Becoming a member of TAAC provides an opportunity to enjoy the satisfaction and fulfilment of establishing a programme of events to engage, educate and entertain Society members and their guests throughout the year. New participants always inject new ideas and new opportunities.

The current committee comprises five regular members, two of whom will be resigning this year because of other commitments. The committee does not have to be limited to five.

Members are invited to contact Chris Spriggs (Current Co-Chair) on 0400 908 378/07 3369 0880 or the office on 07 3368 2066 for further details. By joining the Committee, you will be able to participate in a very important arm of the Society.

What's happening on Council?

On 15 June, seven Councillors met in-person at the RGSQ in Fortescue Street with two Councillors attending via *Teams* online i.e. a quorum of 9. Reports were received from Iraphne Childs (President), Annie Lau (Treasurer), Pamela Tonkin (Property), Young Geographers (John Tasker), Rachel Honey, Kath Berg and John Tasker (AGC) and Lilia Darii (Business Manager). Matters discussed included:

- Partnership agreement with Adventure Traveller
- Budget for 2021-2022
- IT fees and service contract with CyberGuru for coming year
- Replacement of lift – liaising with Body Corporate in relation to costs and timing
- Submissions to the review of secondary school Geography curriculum by ACARA (*Australian Curriculum, Assessment and Reporting Authority*)
- One new member was confirmed

Focus on Geographical Research

Climate explained: Why is the Arctic warming faster than other parts of the world?

By Steve Turton

Professor Steve Turton is Adjunct Professor of Environmental Geography at Central Queensland University, and at the University of the Sunshine Coast and is an RGSQ Councillor.



Prior to the 1800s, the balance between incoming and outgoing energy ([the greenhouse effect](#)) maintained global average temperatures for many centuries. Only small changes in [solar output](#) and occasional [volcanic eruptions](#) caused periods of relative warming and cooling. e.g. The [Little Ice Age](#) was a cooler period between 1300 and 1870. Today, carbon dioxide levels are [near 420ppm](#) and [greenhouse gases are rising rapidly](#) due to the burning of fossil fuels, industrial processes, tropical forest destruction, landfills and agriculture. The global average temperature has increased by a little more than 1°C since 1900. This figure seems small, but the [Arctic region](#) has warmed by about 2°C in this time - much faster than the rest of the planet. The loss of reflective ice contributes between 30-50% of Earth's global heating.

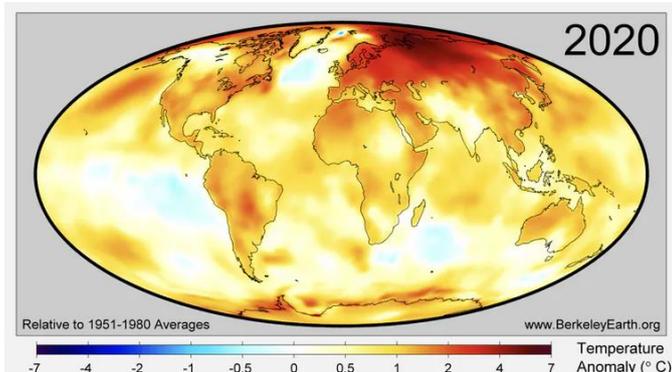


Image source: [The Conversation](#) June 1, 2021

The warming differential between the poles and the tropics, known as Arctic (or polar) [amplification](#), occurs whenever there is a change in the net radiation balance, producing a larger change in temperature near the poles than the global average. This amplification is primarily caused by melting ice - a process that is increasing in the Arctic at a rate of 13% per decade.

Ice is more reflective and less absorbent of sunlight than land or ocean surface. When ice melts it reveals darker areas of land or sea, and this results in increased sunlight absorption and associated warming. The rapid loss of ice affects the polar jet stream, a concentrated pathway of air in the upper atmosphere which drives the weather patterns across the northern hemisphere. The weakened jet stream meanders and brings the polar vortex further south, resulting in extreme weather events in North America, Europe and Asia.

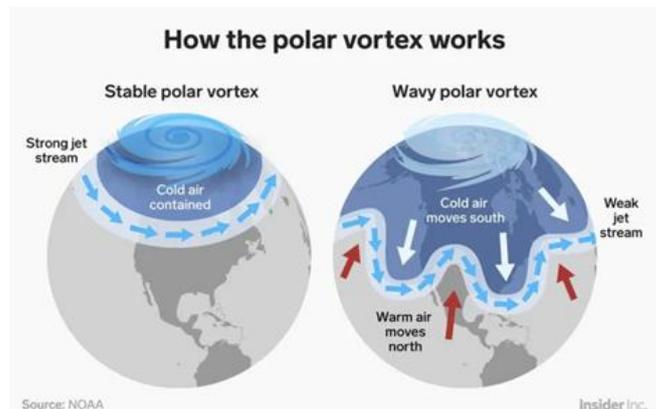


Image source: [The Conversation](#) June 1, 2021

Polar amplification is much stronger in the Arctic than in Antarctica because the Arctic is an ocean covered by sea ice, while Antarctica is an elevated continent covered in more permanent ice and snow. In fact, the [Antarctic continent has not warmed](#) in the past seven decades despite a steady increase in the atmospheric concentrations of greenhouse gases. The exception is the Antarctic peninsula, which juts out further north into the Southern Ocean and has been [warming faster](#) than any other terrestrial environment in the southern hemisphere during the latter half of the 20th century. Satellite data also show that between 2002 and 2020, Antarctica lost an average of 149 billion metric tonnes of ice per year, partly because the oceans around the continent are warming.

What are the related future prospects for Australia and Aotearoa/New Zealand? Global climate models project stronger surface warming in the Arctic than the Antarctic under climate change. Given that temperatures above the Antarctic continent have remained stable for over 70 years despite the rise in greenhouse gases, we might expect little change for our region - just normal climatic variability due to other climate drivers like the El Niño-Southern Oscillation, the Southern Annular Mode, and the Indian Ocean Dipole. But as the tropics continue to warm and expand, we may expect an increase in the pressure gradient between the tropics and Antarctica that will lead to increased circumpolar westerlies winds.

The recent intensification and more poleward location of the southern hemisphere belt of westerly winds have been linked to Australian droughts and wildfires. We can also expect strengthening westerlies to affect mixing in the Southern Ocean, which could reduce its capacity to take up carbon dioxide and enhance the ocean-driven melting of ice shelves fringing the West Antarctic Ice Sheet. These changes in turn have far-reaching implications for global ocean circulation and sea level rise.

References

[The Conversation](#), *Climate explained: why is the Arctic warming faster than other parts of the world?*

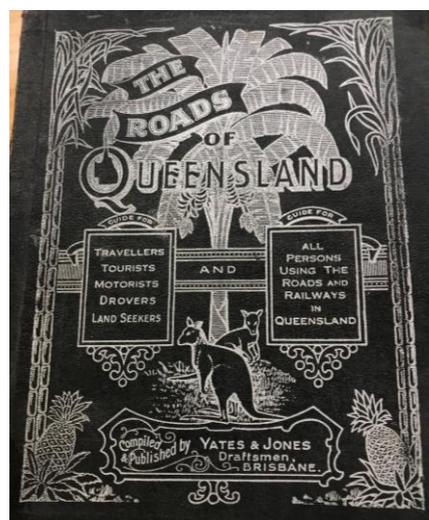
June 1, 2021: <https://theconversation.com/climate-explained-why-is-the-arctic-warming-faster-than-other-parts-of-the-world-160614>

QUEENSLAND'S FIRST ROAD ATLAS?

Contributed by Peter Griggs, RGSQ member

When it comes to finding their way today, motorists can rely on GPS Navigators or GPS on smartphones. No such devices, however, existed when Queenslanders started acquiring automobiles in the 1900s.

Recently, as part of research I am undertaking on the environmental history of South-East Queensland, I looked at Yates & Jones' road atlas published in 1913. Yates & Jones were a Brisbane firm of surveyors and draftsmen located in George Street. Unfortunately, the book did not have any information that would assist my research. However, I was intrigued by the book. After some additional research, I have concluded that this publication is probably the earliest road atlas for Queensland. I could find no other earlier road atlas for the state.



The front cover of the 1913 Yates & Jones' road atlas

The publication has 47 regional maps showing the main roads throughout different parts of Queensland. The maps identify the "good roads", and details assess the status of river and creek crossings. Accompanying each map is one or two pages of information about the region's main industries, the population of the main settlements, the nature of the country being traversed and tips and facilities for travellers.

The publication, however, is not entirely like a modern road atlas. Unusually, the first part of the atlas reads like a handbook for settlers or new immigrants to Queensland, containing information on the State's land legislation, timber regulations and income tax rates. In addition, there are first aid hints, mechanical hints for motorists and details on the cost of tram and cab fares in Brisbane. Clearly, part of the cost of the atlas was offset by advertisements by Brisbane firms.

The publication of the road atlas was considered worthy enough for at least one Brisbane newspaper to run an article about its release. The un-named journalist who wrote the article concluded that it was "a valuable publication" and that "the reliability of the information given cannot be doubted". It took five years to prepare and was based upon the experience of the firm's surveyors throughout the state.

Interested members can check it out at the State Library of Queensland.



One of the regional road maps from the 1913 Yates & Jones' Road atlas.

Sources:

Yates & Jones, *The roads of Queensland* (Brisbane: Yates & Jones, 1913)

Telegraph (Brisbane), July 25, 1913, p. 3.

REPORT: Map Group get together was with our very own RGSQ member Neal O'Connor as Speaker.



The morning planned to start at 10am but our enthusiastic members were in attendance at 9.30 rearing to get this year started.

Neal's challenge for us was to name "My Explorer" from clues as the talk progressed. Bits of history new to us was forthcoming along with much fun and banter from the peanut gallery as we tried to guess the Mystery Explorer. Some nimble fingers were googling on their laptops for the answer. The answer was found in that place known as memory in the human brain box. Google was not in the race. Along the way, did you know – the first public Clock Tower in Australia clocked on in January 1798? – or – the mountain behind Hobart has had six name changes? – or – 500/700 years ago a Mega-Tsunami hit the Australian coast south of Sydney? – or – our mystery man's name appeared in the Phantom comic strip (that is true)? If you were not at the meeting this is a small part of what you missed.

The meeting rounded up with socialising over cuppa, cake and biscuits during which time Neal laid out all his research on the "Mystery Explorer". Who was the mystery "My Explorer"? If you did not go, you may never know.

Image courtesy of Kay Rees.

Contributed by Neville McManimm, Map Group member.

The Winter Solstice marked by two ancient monuments

Contributed by Iraphne Childs

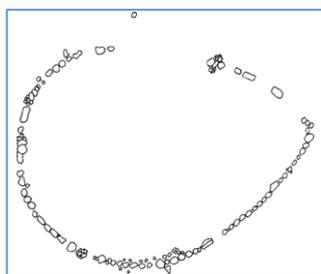
The passage of time through the annual seasons, especially the winter solstice, was important and marked by ancient cultures.

One of the most famous is the celebration on December 21 at **Stonehenge** in England. People must have longed for the return of light and warmth as the days grew shorter and colder. Marking this annual cycle may have been one of the reasons that Neolithic people constructed Stonehenge. Thought to be around 5000 years old it is a monument aligned to the movements of the sun. The stones were shaped and set up to frame two important events in the annual solar cycle – the midwinter sunset in December at the winter solstice and the midsummer sunrise in June at the summer solstice.



Image: Stonehenge Stone Circle, Salisbury Plain, Wiltshire, England

The annual progression of seasons played an important role in ancient Australian Aboriginal cultures and astronomy.



The **Wurdi Youang** stone circle located between Melbourne and Geelong is an irregular egg-shaped arrangement about 50m in diameter. About 100 basalt stones ranging from small rocks to standing stones about 1m high form the circle. Three prominent stones at the western end form the highest point of the ring. Although the actual age is uncertain, the circle could be around 11,000 years old. When viewed from the three western apex stones, small outlying stones marked the setting sun at the solstices and equinoxes on the horizon. So, the outliers were probably placed to indicate the position of the setting sun at these significant times in the year.

References:

<https://stonehenge-tours.com/winter-solstice-sunset-walking-tour.htm>

R. P. Norris et al. (2013) *Wurdi youang: an Australian aboriginal stone arrangement with possible solar indications* *Rock Art Research* V30(1), pp. 55-65.

https://en.wikipedia.org/wiki/Wurdi_Youang

Image sources:

Stonehenge – Stonehenge-tours.com

Wurdi Youang diagram – Norris et al 2013

REPORT: Sunshine Coast Forest Walk and Picnic



RGSQ group, Mary Cairncross scenic reserve, 20 June 2021; image courtesy of Ralph Carlisle.

A small group of RGSQ Sunshine Coast members braved the sunny but cool conditions to enjoy a forest walk and picnic at Mary Cairncross Scenic Reserve near Maleny. The forest walk was led by Professor Steve Turton, convenor of the RGSQ Sunshine Coast group. Steve gave a short field lecture, starting with the break-up of Gondwanaland 45 million years ago through to the present. This included a brief overview of the widespread volcanic activity that affected the area from 30-22 million years, which has shaped the modern landscape including the formation of the Glasshouse Mountains. The scenic reserve is 55 ha in size and provides an exceptional example of the complex sub-tropical rainforest that once covered the rich basalt soils of the Blackall Range, prior to European colonisation of the Sunshine Coast hinterland. The forest contains a diverse array of flora and fauna, many with ancient Gondwanan origins.

After enjoying the forest walk and hearing interesting observations from bird watchers in the group, members gathered for a picnic winter solstice lunch, having been joined by the Society's president, Iraphne Childs, and Ralph Carlisle. Discussions were held about future activities for local members, including occasional guest lectures, other interesting site visits on the Sunshine Coast and a possible joint excursion with the Brisbane members.

AUDIO-VISUAL ITEMS FOR SALE

The Society has the following items for sale on gumtree:

- [RVETEK RT612 ceiling speakers with brackets X6](#): \$600
- [MIPRO ACT-311 Diversity Receiver and receiver bracket](#): \$150
- [BLU-50 4x4 Signal Processor with BLU link](#): \$1000
- [Control Panel](#): \$400

If interested, please contact us on 07 3368-2066 or email info@rgsq.org.au.

A recording of the **June 1 Thomson Oration** is available on the Society's YouTube channel

<https://youtu.be/QPZT6imSKtA>

L to R: *Alaric Maude*, the 2020 Thomson Award Recipient, *David Wadley*, Chair of RGSQ's Honors Committee, *IrAPHne Childs*, RGSQ President; June 1, 2021, Thomson Oration, Gregory Place.

The RGSQ is part of the [Queensland Science Network](#) - a collaboration between Queensland's science societies to promote science events and activities and to share knowledge. Find out more about QSN through their monthly newsletter:

[QSN Newsletters Archives - Queensland Science Network \(scienceqld.org\)](#)



RGSQ Bulletin

July 2021

Lecture/Meeting: Tuesday, 6 July

"Bushfire - an Intensifying Risk for Queensland"

by Lee Johnson AFSM FIFireE Commissioner
(Ret) QFES

W: www.rgsq.org.au

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P: 07 3368 2066

Activities/Events:

Tuesday, 13 July: *Christmas in July in the Sunshine Coast Hinterland*

The July Council will meet on the third Tuesday of the month.

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