



RGSQ Bulletin

February 2017

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From the President

I wish a very, healthy and prosperous Happy New Year to all. I really can't believe that we are already in 2017. I am still in holiday mode as I write this well before the deadline, largely, because I have some exciting fieldwork coming up.

The Institute of Australian Geographers annual conference will be held in Brisbane at the University of Queensland campus in June. This is, largely, an academic conference but the society will be ably represented at the meeting by Bernard and Lilia. Other members will be attending in their capacity as professional geographers while I am on the organising committee for the meeting. We hope to enhance links between the society and academic geographers as part of the meeting, with a focus on building bridges between geography teachers and academics. There will be several public talks by leading geographers associated with the conference and we will be sure to advertise those to members.

I finished 2016 with some fieldwork investigating former glacial limits in a spectacular part of Tasmania. I cannot currently report on this because it is under a media embargo by the funding agency so that tale will have to wait, but I am now heading back into the field in New Zealand on another glacial project. This time I will be looking at evidence for glacial lakes in valleys on the eastern side of the Southern Alps. These lakes are very exciting phenomena because they can fill and most especially, drain very quickly, in fact - catastrophically. They occur when a glacier obstructs a non-glaciated (or partly glaciated) valley. Water rapidly builds up behind the ice and then either the glacier begins to retreat for climatic reasons or the water starts to seep under the glacier. In either case, if water makes it to the other side of the glacier, what starts as a trickle rapidly becomes a torrent until the whole glacier front is swept away and the lake empties immediately. Perhaps the most dramatic example are the so-called 'channel scablands' in eastern Washington State in the US (<http://www.sevenwondersofwashingtonstate.com/the-channelled-scablands.html>); also have a look on Google Earth at or about 47°N and 118°W – all the areas without farmland are parts of the channelled scabland). Here, channels tens of kilometres wide and hundreds of kilometres long were carved by a series of glacial lake floods. More than just the channels are under water -

dunes many tens of metres high and hundreds of meters long, giant abandoned waterfalls and other evidence of huge floods passing through. There is a great story to go with the floods. The scablands were first recognised in the 1920s by J Harlen Bretz - a local geologist. He was widely ridiculed for claiming the scablands were the result of giant floods because the features are so large that they are not at all easy to recognise on the ground. It wasn't until satellite photographs were taken thirty years later that people realised that he had gotten it dead right. Anyway, similar valley blockages occurred in many New Zealand (and some Tasmanian) glacial valleys and huge lakes occurred there also. I am working on a project with the University of Leeds to investigate how, when and where these lakes formed and drained. ■



Jamie Shulmeister, President

LECTURE OF THE MONTH

"The saga of the Brisbane Metamorphics or what the hell is the NBG slate?"

presented by Dr Cecil Murray

Tue Feb 7, 7:30 pm, "Gregory House", 237 Milton Rd, Milton

Apart from a four-year period while he pursued his PhD at Princeton University, Cec Murray worked with the Geological Survey of Queensland until his retirement in 2009 doing a job he loved – geology. His overall knowledge of the geology, mineral resources and mineral potential of Queensland has meant his expertise has been sought by many private, public and research organisations.

Cec has always been eager to share his knowledge with others. He has led several field conferences in central and south-east Queensland. For 25 years, including more than a decade as chair, he served on the Australian UNESCO Committee for the International Geological Correlation Program, awarding grants to Australian geoscientists to participate in international projects. Over the last few years he has enjoyed

furthering people's knowledge of geology through his class at U3A Brisbane.

In recognition of his services to geology, Cec was awarded the W R Browne Medal in 1998 and the Dorothy Hill Medal in 2003 by the Geological Society of Australia and the Queensland Division of this society respectively.

Cec will provide a presentation for both geologists and non-geologists on the Brisbane Metamorphics, the oldest rocks around Brisbane, and the century-long struggle to determine their age and geological setting.

FEBRUARY LECTURE ON THE SUNSHINE COAST

“Polar perambulations and other adventurous wanderings” by Dr Adrian McCallum

The lecture is organised by RGSQ in association with the University of the Sunshine Coast.

Tuesday, February 21, 7:00 pm – 10 pm, University of the Sunshine Coast, Lecture Theatre 2 (K Block).

If you are interested in carpooling to join RGSQ for this great lecture up on the Sunshine Coast, please contact the RGSQ office on 07 3368 2066 or email at admin@rgsq.org.au.

Dr Adrian McCallum currently serves as a Lecturer in science & engineering, and manages courses in soil mechanics, geotechnical engineering and climate change adaptation. He is fortunate to have led a life of adventure and exploration around the globe and is an expert in remote area science & engineering.



Dr Adrian McCallum supervising blasting and excavation works in Thala Valley, Casey Station, Antarctica as part of investigations into a sustainable road over permanent ice. Photo courtesy of Adrian McCallum.

He holds a PhD from the Scott Polar Research Institute, University of Cambridge and additional degrees in oceanography, meteorology and civil engineering. In 2002 he was awarded the Australian Centenary Medal for his stewardship of the 2001 Australian Army Centenary Everest Expedition and he is a Menzies Scholar and Director of the Menzies Foundation.

During twenty years' service across the Australian Defence Forces he served in numerous diverse roles such as helicopter navigator, meteorologist and civil engineer and he has led or participated in adventurous scientific expeditions around the globe. These investigations have taken him to many far-flung locations including Svalbard, Greenland, across the Arctic and Antarctica, and to the Himalaya and the ice caps of Patagonia.

He orchestrated Sir Ranulph Fiennes' ground-breaking 2013 winter Transantarctic expedition, he owns a company specialising in remote area science and engineering and he regularly consults to the Australian Antarctic Division and other international agencies on polar infrastructural and operational matters.

“The Coldest Journey: the first expedition to cross Antarctica in Winter” by Adrian McCallum Part I

INTRODUCTION

Antarctica is the coldest, driest and windiest continent on earth.

The location for many - a 'heroic-age' adventure; it was first crossed in 1958 by Sir Edmund Hillary and Sir Vivian 'Bunny' Fuchs during the Commonwealth Transantarctic Expedition where Hillary and Fuchs met at the South Pole after starting at opposite sides of the continent.

The first 'man-powered' crossing was in 1990 and in recent times, because of easier commercial access via Antarctic Logistics and Expedition (ALE) into Union Glacier and Antarctic Logistics Centre International (ALCI) into Novolazarevskaya, it has become the new capital of adventure tourism with last-degree trips to the Pole, kiting and cycling expeditions and all manner of additional 'first' exploits, founded upon a now mature, air support system.

However, amidst these recent flurries of polar adventure, one challenge still remained: a winter crossing of the coldest place on earth...

Perhaps only one man could conceive of this challenge, someone “mad, bad and dangerous to know”. So, how did I cross paths with the “world's greatest living explorer” and become entwined in the first expedition to cross Antarctica in winter, the Coldest Journey...

It was 2008 and I had just commenced my PhD into snow mechanics at the Scott Polar Research Institute (SPRI), University of Cambridge; I was intending to investigate the in situ assessment of polar snow strength for the development of polar infrastructure such as roads, runways and building foundations, an almost 'lost' field that hadn't received much attention since the end of the Cold War.

Sir Ranulph had approached Professor Julian Dowdeswell, head of SPRI seeking assistance in formulating plans for his conceived winter crossing of Antarctica and Julian then sought advice from my PhD supervisor, Professor Liz Morris, OBE. Liz said: “I know just the man”. Within a week or so, after limited formalities, I was sitting down with Sir Ranulph Fiennes to discuss how we might go about successfully prosecuting the first winter crossing of Antarctica. This was a remarkably serendipitous circumstance.

Some 15 years earlier as a young trainee pilot in the RAAF, struggling to retain interest in my prescriptive flying training, I drafted a letter to Sir Ranulph, who had just completed a near death crossing of Antarctica with Dr Michael Stroud. I asked him, “How do I become a polar explorer?”. Sir Ranulph replied via hand-written note, “Just do it!” or words to that effect, and so here it was that I was working alongside him prosecuting important polar expedition matters; I still have his letter tucked-away in a book somewhere.

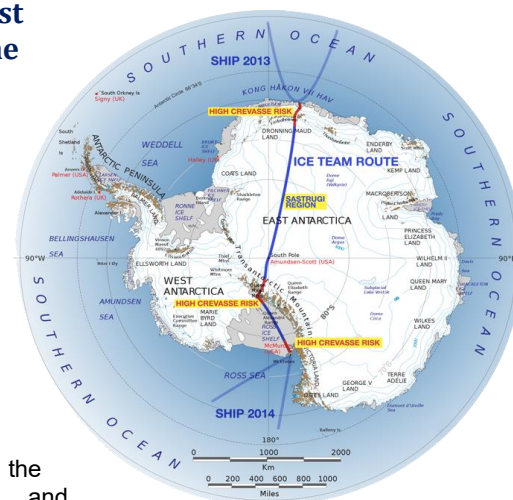




Photo Credit: John Clear

Sir Ranulph Twisleton-Wykeham-Fiennes, 3rd Baronet, OBE was the first person to visit both the North and South Poles by surface means and the first to completely cross Antarctica on foot. Notably, after a mishap that saw him fall in the Arctic Ocean on an aborted North Pole expedition, Ran sawed off a couple of frostbitten fingers in his garden-shed vice, rather than wait about for the doctors to get on with the job.

PLANNING

Ran was the overall expedition leader, Anton Bowring, an old colleague of Ran's from the Transglobe days oversaw shipping, and I was charged with organising the "Ice Team"; the vehicular traverse capability that would support Ran (and at that stage Mike Stroud) as they skied across the continent.

I threw myself into these tasks (alongside my PhD studies) and was soon 'swimming' amidst all manner of polar traverse literature whilst simultaneously 'cold-emailing' polar traverse experts from around the globe and fielding calls from Ran in the SPRI (Scott Polar Research Institute) stairwell, so as not to disturb my fellow PhD students.

To complete the journey unassisted (skiing only) was not deemed viable, so the intention was that an Ice Team travelling in two vehicles would 'shadow' a pair of skiers (Ran and Mike) as they made their way from McMurdo Station to the northern edge of Berkner Island, via the Pole; this was the originally envisaged route, formulated with the assistance of the late Dr Charles Swithinbank, an iconic polar figure in his own right.

After many months of dedicated activity I presented my findings to Sir Ranulph concluding that a winter crossing with a vehicle team was logistically possible, but that steel-tracked vehicles would be necessary (rubber tracks might shatter in temperatures < -60°C) and fuel would need to be towed in innovative flubbers mounted on poly-sleds; a technology that had just been implemented by the US Antarctic Program. Weight would be an issue, but based on contemporary research by CRREL on the Ross Ice Shelf, if we limited traverse team weight to ~45 tons then statistically we had a 99% chance of not getting bogged in 'snow swamps'.

Thus, the logistical challenges appeared surmountable, next was the biggest challenge, the funding...

FUNDING

Ran's original intent was to seek an overarching sponsor for the expedition, costs for which were estimated to be approximately £2M, primarily to hire/purchase a ship and procure the fuel and vehicles necessary for the ~ 4000 km overland traverse.

For a period of approximately 12 months I travelled routinely to London, generally meeting with Ran at the Royal Society where we attempted to court high-value sponsors such as Barclays Bank, Sainsbury's supermarket and others, to support the expedition.

The expedition had found a valuable supporter in Sir Peter Williams, then Vice President and Treasurer of the Royal Society. Peter lent valuable credibility to the enterprise and assisted us in developing a programme of credible scientific research that could be conducted throughout the expedition. He

also generously hosted us at the Royal Society for many productive meetings.

Unfortunately, these proceedings coincided with the 2008 GFC and money to support such exercises was 'thin on the ground', thus, much to his frustration, Ran had to return to the proven, but cumbersome method of approaching numerous sponsors, almost 200 in the end to provide all the bits and bobs necessary to conduct such an audacious expedition.

One particularly light-hearted moment occurred one morning at the Royal Society as Ran, Sir Peter and I awaited Sainsbury representatives for a meeting. I had enquired of Ran about his means of keeping fit/his daily exercise regime and not only did he comprehensively describe to me his daily routine but he proceeded to demonstrate the exercises to me, besuited as were, within the oak-lined walls of the Royal Society.

Although the expedition was ultimately able to get underway through the support of many sponsors, three big ticket items remained: a ship, vehicles and fuel...

THE BIG-TICKET ITEMS

Although procuring the ship was Anton's 'part of ship', one day Ran and I secured an opportunistic meeting with HRH Prince Charles at Clarendon House, to seek Charles' thoughts on acquiring a suitable vessel. Charles and Ran were old mates, and I, on my best behaviour, enjoying contributing to a discussion about how possibly, we might secure an appropriate vessel.

Ultimately, by collaborating with the Commonwealth Foundation a vessel was secured for lease over the expedition period. The SA Agulhas, the South African National Antarctic Expeditions recently retired vessel, proved a suitable platform to carry the vehicles and sufficient fuel and equipment to the ice, whilst also offering South African Naval Cadets, the opportunity of a lifetime, in assisting with the deployment of the expedition.

My task remained to secure vehicle support for the expedition. All my research suggested that the Caterpillar D6N Low Ground Pressure (LGP) bulldozer was the right tool for the job, an assertion that I affirmed via regular correspondence with colleagues at the British Antarctic Survey (BAS). I liaised initially with Finning, the UK Caterpillar dealer in Cannock, and within the month, Ran and I were en route up the motorway for an initial meeting.

Finning were extremely supportive of the project from Day 1 and, over the course of many months, "Project Alpha" unfolded; the acquisition of two specially built Cat D6N LGP bulldozers directly of Caterpillar Europe's production line.

We now had a ship and vehicles but fuel remained a large requirement.

We had originally planned a lightweight summer traverse to pre-place fuel and then several air drops were mooted; ultimately the Ice Team would tow all the fuel, but, still, where to get it from? Ran's initial requirement was for Anton and I to confirm the amount of fuel required from a potential sponsor. Anton's needs were substantial, dwarfing the requirements of the Ice Team, but even our needs were considerable, with many factors to consider to ensure that sufficient supplies could be sought. Over many months, old colleagues from Ran's Transglobe days were courted as well as oil majors such as Shell, but ultimately the hundreds of thousands of litres required was purchased, a not insignificant additional cost to the expedition. *TBC in March Bulletin*

Welcome New Members

We have much pleasure in welcoming **Mr Yu-Hsuan Tu and Mr John Tumbridge** as new members. We hope your association with your new Society is long and mutually enjoyable.

UPCOMING EVENTS

FEBRUARY EVENT: WELCOME TO 2017

When: Friday 17 February
Where: "Gregory House" 237 Milton Rd. Milton
Time: 7pm for 7:30 pm start
RSVP: Fri Feb 10, RGSQ Office 07 3368 2066

RGSQ cordially invites all members to attend this social event to welcome in 2017.

There will be several short 2-5 minute presentations - Map, Library and Travel Groups, The National Significance project, and TAAC overview of 2016 and what is in store for 2017.

Displays will be on show by the Library & Map Groups. Both groups have exhibits that members find very interesting, so this will give all of us another opportunity to see what else can be discovered at RGSQ.

There will be short slideshows for the 2016 activities and for upcoming events & lectures in 2017.

Following on this - time for conversation while supper is served. **Coordinator: Kay Rees**

MARCH ACTIVITY: FELTON FOOD FESTIVAL

What: Bus trip to Felton Food Festival
When: 26 March 2017
Cost: \$39 per person, please book with RGSQ Office
Entry: \$2 at the entrance to the festival.
Getting there: Departure from Park Road, Eagle Junction, time tba
Getting back: Depart Felton, time tba
RSVP: Fri Feb 10, RGSQ Office 07 3368 2066

The cost covers the bus trip to and from Felton and includes morning tea in Gatton.

Please join RGSQ for a fabulous day out at the Felton Food Festival. Felton is just under two hours from Brisbane and the country festival is becoming increasingly more popular every year with over 12,000 people attending last year's event. On the way to Felton, we'll stop in Gatton for morning tea.

There will be many and varied market stalls, local farmers showcasing local produce, opportunities to find out more about the "paddock to plate" phenomenon, enjoy good food and simply have a great time with your fellow RGSQ members. To find out more about the festival, please visit: <http://www.feltonfoodfestival.org.au>.

Coordinator: Leo Scanlan

APRIL ACTIVITY: BUSH AND BEACH

Two gentle and contrasting walks

Saturday, 22nd April,
To book - contact RGSQ Office on 07 3368 2066.

First, visit the Caboolture Region Environmental Education Centre in Rowley Road at Burpengary. It has about 1.5km walk along of flat track, through different vegetation, past a frog pond, a macadamia grove, you

may see koalas and butterflies, a sensory garden, bat boxes, stingless bees, and much more. You might even see the creek - if it has rained recently! Burpengary Creek enters Deception Bay. There is a nursery, too. Burpengary comes from Burpengary-car or "Burpengary-Kari", which means "place of green wattles" in the local indigenous language.

CREEC is staffed by volunteers who hold workshops, field days and give talks on related topics. I hope we will have a guide.

Have a quick *BYO snack* before heading for Sandstone Point (just before the Bribie Bridge) for another gentle walk along the beach (it is low tide about 12.30pm) to view an aboriginal fish trap.

BYO lunch to enjoy in the picnic area then, if you still have energy, pop over to the surf beach for a quick swim.

Full details in the March Bulletin.

Coordinator: Audrey Johnston

MAY TREK TO SPICER'S GAP ROAD CONSERVATION PARK

When: Wednesday, May 10

Cost: \$15

RSVP: Thursday, May 4

To book: contact the RGSQ Office on 07 3368 2066

Time: 10am - meet in Aratula for morning tea and then pool cars to drive up to Governor's Chair car park, visiting historical sites on the way. Bring your own lunch to have at Governor's Chair Lookout. After lunch, take a walk along the Heritage Trail with historical plaques, 3.2kms return of gently sloping track.

Wonderful bird watching and wild life opportunities and geographical input from Bernard Fitzpatrick, RGSQ member and geographer. More details later.

If wet, will be postponed to May 17th.

If oversubscribed, then a weekend repeat trip will be considered. **Coordinator: Chris Spriggs.**

JULY ACTIVITY: FIELDTRIP ON BRISBANE RIVER

4-hour CityCat trip on the river as part of the Institute of Australian Geographers' Conference

When: Thursday, July 13, 9am-1pm

Cost: \$50

Expressions of interest only, please contact RGSQ on 07 3368 2066 or email at admin@rgsq.org.au.

The Brisbane River, a large dynamic waterway, is the pivotal physical element shaping the City of Brisbane and is, arguably, the City's greatest natural resource.

From its source in the Brisbane valley the river courses through the CBD before reaching its estuary in Moreton Bay. A great way to observe the City's changing development is on the river. The field trip will be a 4-hour journey aboard a CityCat ferry from the University of Queensland downstream through the CBD, Southbank Parklands to the Port of Brisbane at the mouth of the river, and returning to the University.

Dr. Iraphne Childs, a geographer from UQ's SEES, will be joined by an officer of the Brisbane City Council's urban planning team to give commentaries on the river's geography, including notable flood events, historical and present-day waterfront land use. **Coordinator: Iraphne Childs**

SPECIAL INTEREST GROUPS

RGSQ TRAVEL GROUP

BEEN THERE! DONE THAT!

First meeting: 10 am, Tue, 7 Feb, Gregory House, 237 Milton Rd, Milton 4064

Do you have itchy feet?
Are you addicted to travel?
Are you camera crazy?

Then you may be interested in joining a travel group to meet every couple of months to talk about travel, to share stories and photos of your adventures, perhaps even enjoy a mini adventure.

If so, **register your interest with the RGSQ Office at 07 3368 2066 or email at admin@rgsq.org.au, including contact details.** We can decide on meeting days, activities & frequency at the first meeting.

Coordinator: Audrey Johnston

KEN SUTTON

MEMORIAL LIBRARY GROUP

When: Monday, February 27, 2017

Time: 9:00 am

Where: "Gregory House", 237 Milton Rd.



MAP GROUP

When: Monday, February 6

Time: 10:00 am

Where: "Gregory House", 237 Milton Rd, Milton.

Key Event: Presentation by Stuart Watt on "Orienteering Mapping – Art or Science?" followed by Map Group gathering.

March, 2017

- Early to Mid-March:
 - Possible Group Visit to Map Collection of National Australian Archives (NAA), Cannon Hill. Has maps covering Commonwealth Govt activities in Qld, Northern NSW, NT & New Guinea - when an Australian Territory. Will be a Topic of Discussion & Decision at February 2017 Map Group Gathering. **Bob Abnett, RGSQ Map Group Coordinator**

MAP OF THE MONTH: Historic Map of Jardines' Expedition 1864-1865

The Map Group recently discovered a significant map in Australian history dating back to 1867 (drawn up 3 years after the expedition). It tells of the 1864 journey led by brothers Frank and Alexander Jardine up the west inland coast of Cape York to establish a settlement at Somerset at the northern end of Cape York.

This journey began west of Ingham at the last known cattle station, 'Carpentaria Downs' owned by Mr J G Macdonald, Esq. on 11 October 1864 and finished at Somerset, Cape York on 13 March 1865 (6 months).

They started with 250 bullocks and cows, 41 horses, 1 mule, 10 expedition members, "black boys from the districts of Rockhampton and Wide Bay", in addition to 18 packs (150 lbs each) of provisions. The provisions were calculated to last 4 months and included 1200 lbs flour, 3 cwt sugar, 35 lbs tea, 40 lbs currants and raisins, 20 lbs peas, 20 lbs jams, salt etc.

The large map shows its age and is a little hard to read because of the minute hand writing, probably a reason it escaped the attention of most in the Society, until now. The Map Group has now placed this map in protective see through sleeve and stored it flat in the large map drawers opposite the library shelves.

If you were to compare this map to a current map of the same area of North Queensland, you will notice a distinct lack of detail, except where previous explorers such as Leichardt, Gregory and Gilbert made their way in earlier years. There is detail though on the expedition itself including:

- A total of 94 camp sites;
- Naming of numerous new rivers, creeks, lakes and lagoons;
- Identification of new mountain ranges, ridges; and
- Notes on significant events that are sampled below.

With a magnifying glass, the detailed route and notes on the map come to life and tell of a very difficult journey experienced by these men. At camp 44 near the Mitchell River it is noted that "70 or 80 natives attacked the party while travelling".

A note near camp 67 stated "12 of our horses were poisoned here.... we think it was a poisonous herb the cattle were not affected by it". Another note stretching along their route reads "All the country on the west coast is flat, from our 15 to our 54 camp we saw nothing high enough to be called a ridge". A more sombre note says "Gilbert killed June 1845" indicating where John Gilbert, Naturalist had been speared to death by aboriginals, whilst on Leichardt's famous journey.

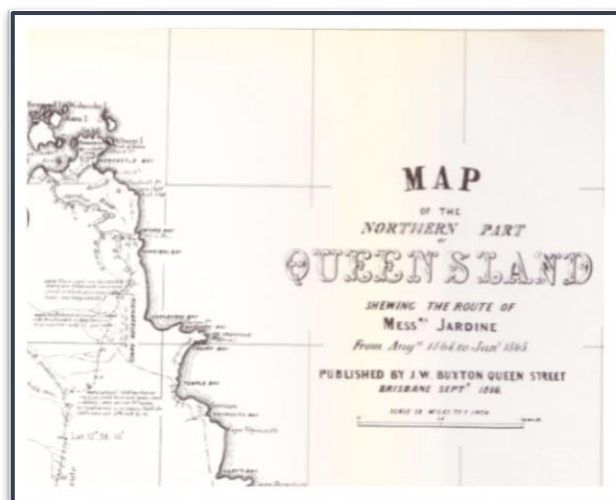


Photo depicts the map title and last section of the Jardines' journey.

We are also fortunate to have in the Library collection an account of this expedition written a few years later by Frederick J Byerley entitled "Jardine's Journal", 1867. It tells a great story of "these hard bushmen met with and successfully combated, almost every "accident by flood and field" that could well occur in an expedition."

It also tells of the miles, not recorded on the map, spent scouting ahead of the main party looking for water sources and the countless miles spent looking for lost horses and cattle. These among many other hardships, along with a smaller copy of the map in the rear of the book make this book a very good read indeed.

The Jardines' on-going legacy in Cape York is the naming of the Jardine River and the Jardine River National Park, both located at the "Top End" of Cape York. **Chris Hall, Map Group**

Volunteers Please Australian Geography Competition

We need to call on our generous members for help with the mailing of Australian Geography Competition information again in 2017.

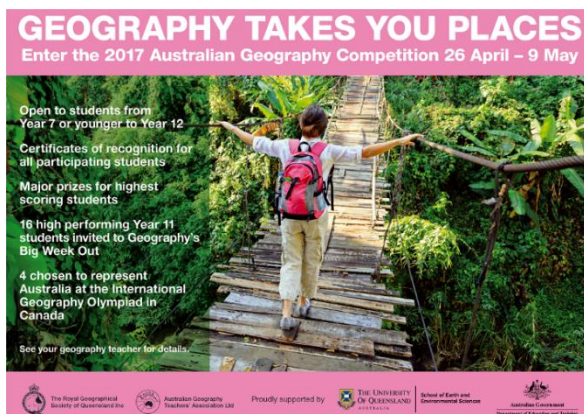
Mailing of the Question Booklets. Helpers are required on **Tuesday 14 to Friday 17 March** from **9:30am to 5:00pm**.

This task involves counting or weighing the required number of Question Booklets and answer sheets, and placing them in envelopes, Post satchel or boxes.

Mailing of Certificates, Results and Prizes. Helpers are required on **Tuesday 11 to Friday 14 July, 2017** from **9:30am to 5:00pm**. This task requires identifying school student certificates and result sheets, and placing them in envelopes, Post satchel or boxes.

If you can assist with any of the above, please call the office at 07 3368 2066 or email at admin@rgsq.org.au. Thank you, your help is greatly appreciated!

GEOGRAPHY TAKES YOU PLACES
Enter the 2017 Australian Geography Competition 26 April – 9 May



Open to students from Year 7 or younger to Year 12
Certificates of recognition for all participating students
Major prizes for highest scoring students
16 high performing Year 11 students invited to Geography's Big Week Out
4 chosen to represent Australia at the International Geography Olympiad in Canada
See your geography teacher for details

The Royal Geographical Society of Queensland Inc. Australian Geography Teachers' Association Ltd. Proudly supported by THE UNIVERSITY OF QUEENSLAND School of Earth and Environmental Sciences Australian Government Department of Education and Training

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February 2017

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February Lecture on the Sunshine Coast: Tue Feb 21, *"Polar perambulations and other adventurous wanderings"*, by Dr Adrian McCallum.

Event: Fri Feb 17 Welcome to 2017 – RGSQ cordially invites all members to welcome in 2017.

Map Group Meeting: Mon 6 Feb 10:00 am, "Gregory House", 237 Milton Rd. *"Orienteering Mapping – Art or Science?"* presented by Stuart Watt

Ken Sutton Memorial Library: Mon Feb 27 9:00 am, "Gregory House", 237 Milton Rd, Milton.

Council meetings are held on the second Tuesday of each month.

The Royal Geographical Society of Queensland Inc
"Gregory House", 237 Milton Road, Milton Q 4064

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AUSTRALIA