

November 2010

THE GEOLOGICAL SOCIETY OF AUSTRALIA
Victoria Division

Next General Meeting for 2010

Thursday 9th December at 5:30 p.m.

The Geological Society of Australia Victoria Division would like to invite you to our annual Christmas Function at Museum Victoria

A short presentation will be given by Dr Bill Birch (Senior Curator, Geology)

Biography

Bill was born and educated in Melbourne, and after graduating from the University of Melbourne with a PhD in geology was appointed Curator of Minerals at the then National Museum of Victoria in 1974.

His work has taken him to many far-flung places in Australia and the rest of the world, such as Greenland, Pakistan and Canada, where he has collected rocks and minerals for the museum. He has described nearly 30 new minerals and published about 180 papers.

He has been involved with international mineralogical organisations for over 20 years and his contributions to geological knowledge and to scientific organisations have been recognised by the award of the Selwyn Medal by the Geological Society of Australia in 1999 and an AM (Member of the Order of Australia) in 2006.

Source: www.museumvictoria.com.au

AWARDS

FRANK CANAVAN AWARD

The Frank Canavan Award was set up in 1996 by Mrs Canavan in honour of her late husband Frank, a well known Victorian geologist who was very active in promoting geological education and was a member of the Education Subcommittee of the Division. The Award is a cash sum for the purchase of geological textbooks, and is awarded to the most promising student who has finished second year geology at a Victorian university, as judged by the student's academic performance.

The 2010 Canavan Prize was awarded to Kathryn Owen from Monash University for the best second year student in Earth Sciences in Victoria.

DE THOMAS MEDAL

This medal commemorates David Evan Thomas, the well known former head of the Victorian Geological Survey who was famous for his detailed and precise mapping. The silver Thomas Medal is offered each year for the best geological map produced by a Victorian Honours level student in Victoria. Submissions are sought by the selection committee from Geology or Earth Science Departments of Victorian universities.

The 2010 Thomas Medal was awarded to Ashleigh Hood from University of Melbourne for the best honours mapping thesis in Victoria. Ashleigh did her honours project on the newly discovered Oodnaminta Reef in the Flinders Ranges, South Australia. The reef is of Neoproterozoic (Cryogenian) age and contains evidence of pre-Ediacaran multicellular organisms. Ashleigh's project was to study the field geology and petrology of the Oodnaminta Reef. She produced a detailed map of the reef and surrounding sediments. Her mapping and petrology were outstanding and she gained a mark of 97% for her thesis. Ashleigh was awarded the GSA Canavan Prize in 2009 for the best second year student in Earth Sciences in Victoria.

Ingrid Campbell (Chair, Awards Committee)



From left to right: Ingrid Campbell (Chair, Awards Committee) and Kathryn Owen (Monash University), winner of the Frank Canavan Award



From left to right: Ashleigh Hood (University of Melbourne), winner of the DE Thomas Medal, and Ingrid Campbell (Chair, Awards Committee)

MEMBER CONTRIBUTIONS

Student Research Scholarship Article

Peter Hoiles, University of Melbourne, September/October 2010

With the help of the GSAV's Student Research Scholarship, I was fortunate enough to be able to travel to and present my research at the 2010 International Symposium on Foraminifera. The conference was held at the University of Bonn, Germany from 5-10th September and was attended by several hundred people from many different countries around the world. For those of you who don't know, foraminifera are single-celled protists which can be useful in biostratigraphy and palaeoceanography amongst other things. I've been using benthic foraminifera to chart the fine scale evolution of the Tsushima Current in the Sea of Japan and the Leeuwin Current which flows along the western coastline of Western Australia. My talk was held in the morning of the Tuesday session and although I was extremely nervous, I think it went well. If one can measure success by the number of people who didn't fall asleep, then I would have to say I was highly successful! Well, at least I didn't hear any snoring! Having my talk early in the week meant that I was able to concentrate on the rest of the sessions for the week and I learned quite a lot. It was great to be able to meet and discuss with people who I know of by name and reputation only! Putting a face to a name is always good. There was a choice of mid-conference field trips and I decided to visit the Messel Pit. The Messel Pit is a UNESCO World Heritage site that hosts amazingly well-preserved Eocene fossils and a recently finished visitor's centre displays some of these. From fossilised bats and fish to birds and even a caiman, this is definitely worth a visit if you are ever in the area! We went on a tour of the pit, met some of the palaeontologists who are searching for fossils and even got to look for some fossils ourselves. I wasn't successful, but that is okay since you aren't allowed to take things from the pit anyway. All in all, attendance at the conference was a valuable opportunity to meet other researchers in my field, expand my knowledge of the field and to see where the future lies. Presentation of research at an international conference is a major milestone for any PhD research student and I wish to thank the GSAV for making it possible.



Figure 1: The University of Bonn's Main Building, a 17th Century Baroque Palace.



Figure 2: *Palaeochiropteryx tupaiodon* – a fossil bat in the Visitor's Centre at the Messel Pit.

MEMBER CONTRIBUTIONS

A summary of the 2010 International School of Volcanology*September 27th – October 2nd 2010, Nicolosi, Catania, Italy*

By Julie Boyce
Monash University

*Participants of the school on the 1792-1793 lava flow field*

The 2010 International School of Volcanology was the first of its kind, held by the AIV (Associazione Italiana di Vulcanologia) in collaboration with INGV (Istituto Nazionale di Geofisica e Vulcanologia). The workshop focused on explosive basaltic volcanism, with case studies of Mt. Etna and the Hyblean plateau. The workshop took place in Nicolosi, a small town with gorgeous views of Mt. Etna, and included representatives from research institutes in Europe, Oceania and America. The Monash University presence included myself and three other postgraduate students - Jozua van Otterloo, Simone Jordan and Matthew Edwards.

The workshop was split into three lecture days and three field trips. Introductory lectures focused on a wide range of topics including volatiles and degassing, dynamics of magma ascent, fragmentation processes and transport and deposition of pyroclasts. The geology of the Hyblean Plateau and Mt. Etna was then described in detail in order to prepare us for the field trips.

*Stratigraphy of the Loddiero valley*

The first field day took us to the Hyblean Plateau. In the Loddiero valley can be seen a complete section of the Plio-Quaternary Hyblean Forelands northern margin, such as conglomerates and packstones; and Plio-Pleistocene tholeiitic and alkalic lavas. After a beautiful sunny morning, we were rained-off the Sortino Diatremes, but were amused to see so many geologists with umbrellas in the field!

During the second field day, we examined the pyroclastic deposits of Mt. Etna. Among other deposits, we examined the Monti Rossi scoria cone, which we took a scenic stroll

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MEMBER CONTRIBUTIONS

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around while looking at the fallout deposits of the 1669 eruption. Then it was off to the 1792-1793 lava flow field, composed of a'a and toothpaste lavas, and featuring several lava tubes. The Cassone lava tube featured beautiful lava stalactites and horizontal step marks indicating past levels of the molten lava.

The third field day was an optional excursion to Mt. Etna's summit craters, which unfortunately were too active on the day for the trip to take place. Instead, we took the cable car from Rifugio Sapienza and descended the Valle del Bove (Valley of the Oxen). The valley is a 5 km diameter depression on the eastern flank of Mt. Etna, over 1000 m deep. Origins of the valley remain unclear, but may be due to collapse of older volcanic centres of the volcano. The day offered spectacular and stunning views of Mt. Etna, as we walked over a lunar-esque landscape of scattered volcanic bombs lying in ash, past eroded sheeted dykes, 'skied' down steep ash slopes and walked over the lava flows.



'Valle del Bove'

Overall, the workshop was a great experience, allowing us to interact with international researchers and make important contacts, as well as meeting other postgraduate students of volcanology from around the world. Examining and learning about these deposits was important, as it allowed us to think about our own PhD projects and other possible directions we could take our research, and also about the similarities and differences between our volcanoes and Mt. Etna.

For myself, this trip was partly funded by both a Monash University travel grant, and a GSAV Student Research Scholarship, for which I am very thankful.

MEMBER CONTRIBUTIONS

38th IAH Congress "Groundwater Quality Sustainability" September 12th-17th 2010, Krakow, Poland

Sarah Hagerty, La Trobe University

I was recently lucky enough to attend the 38th Congress of the International Association of Hydrogeologists in Krakow, where the conference theme was "Groundwater Quality Sustainability." It was a pleasure and a privilege for me to meet expert hydrogeologists from around the world, and to put faces to names I have read repeatedly in journal articles. The standard of presentations at the conference was very high and topics included dealing with heterogeneity in hydrogeological systems, ecohydrology, using environmental tracers, surface water-groundwater interactions and management of transboundary aquifers.

I presented some of my PhD research in a paper entitled "Salt accumulation and groundwater recharge on granite slopes in southeastern Australia". Despite being the last presentation in a long session just before lunch, a long and interesting discussion was sparked that went over question time, and I finished up feeling freshly inspired to come back to Melbourne and finish writing my thesis!

The 520 delegates from around 70 countries (including around 20 people from Australia) had a good taste of Polish hospitality while at the conference. One highlight was a night at the Juliusz Słowacki Theatre where a gala dinner was preceded by a performance from the spectacular KHW Symphony Orchestra. I can safely say a good time was had by all!

Thank you to the Victoria Division of the Geological Society of Australia, the Australian Institute of Nuclear Science and Engineering and La Trobe University for their financial support, which allowed me to attend the conference.



Something interesting to share? Want to see your name in print?

Don't be bashful, contribute to the GSA(V) monthly newsletter!

If there are any events, happenings, news, or views that would be of interest to the membership, please send your details and information to Gemma Prata (gemma.prata@monash.edu)

We'd be glad to hear from you!

FORTHCOMING EVENTS



IUGG2011: "Earth on the Edge: Science for a Sustainable Planet"
Melbourne Convention and Exhibition Centre, 28th June – 7th July, 2011

- *Registrations opened 16th August, 2010*
- *Abstract submission period 16th August, 2010 – 17th January, 2011*
- *Conference website now open: <http://www.iugg2011.com>*
- *Scientific program of symposia, workshops, fieldtrips, together with symposia convenors, plenary and keynote speakers already available on website*

STAVCON - CALL FOR VOLUNTEERS

STAVCON is the annual conference of the Science Teachers' Association of Victoria. The conference is open to any person involved or interested in science education; this includes student teachers, laboratory technicians, primary, secondary and tertiary educators.

29 - 30 November 2010 at La Trobe University, Bundoora

Theme for 2010: Understanding science in a changing world

The Victorian Division of the GSA will have a table displaying rock specimens and fact sheets, with the aim of promoting geology (and the GSAV!) and making it feature more prominently in schools.

If you would like to volunteer some time at this conference on either day, please contact Noel Schleiger on (03) 9435 8408

For more information, see the STAVCON website: <http://www.sciencevictoria.com.au/STAVCON.html>

STUDENT FUNDING OPPORTUNITIES

Geological Society of Australia (Victoria Division) Student Research Scholarships

The GSAV are pleased to offer up to \$10,000 per year in scholarships available to honours and postgraduate students for assistance with travel costs associated with conferences and field work.

The scholarship is valued at up to \$500 for travel within Australia and \$700 for travel outside of Australia. The number of and value of the scholarships awarded each year is made at the discretion of the GSA(Vic) committee.



Funding will not be granted retrospectively and applicants are asked to submit forms no later than 6 weeks prior to their trip to give the committee time to consider the application.

Students that receive this scholarship are required to submit a report for publication in the newsletter, "The Victorian Geologist", following their trip. A presentation may also be requested by the committee, which will consist of a short, 10-15 minute presentation prior to the monthly seminar.

Applications forms can be scanned and emailed to: secretary@vic.gsa.org.au

or mailed to:

Geology Research Scholarships Victoria
Geological Society of Australia (Victoria Division)
GPO Box 2355
Melbourne VIC 3001

More information including eligibility criteria can be found on the form and by contacting Barbara Wagstaff (wagstaff@unimelb.edu.au)

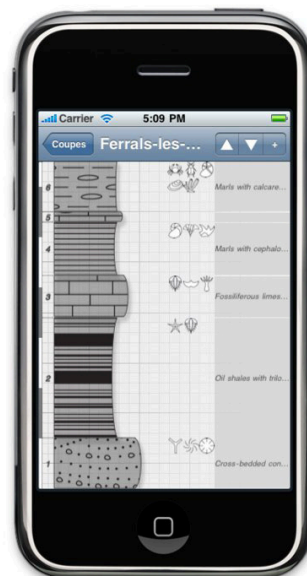
New strat logging app for iPhone!

iGeoLog is the first iPhone App for drawing geological sections in the field. Forget your fieldbook, iGeoLog includes all the tools necessary to draw beautiful geological sections within minutes. It includes:

- a geological section editor, letting the user set classical information such as thickness, bulge, horizontal offset, comments and numbering.
- the Feature Library lets you add textures to beds: limestone, dolomite, cross-bedded sandstone for example. The library contains > 40 textures for sedimentary rocks, > 30 textures for igneous rocks.
- the Feature Library also contains > 60 fossil classes/orders, enabling you to define the fossil content of a given bed with a few taps.
- the Feature Library follows FGDC Digital Cartographic Standard for Geologic Map Symbolization. More on www.fgdc.gov.
- the section editor lets you add the GPS coordinates when you are in the field (iPhone only). No additional GPS unit is required.
- a standard metric scale

The sections can be sorted and listed with a standard list or with the geoFlow function.

See: <http://itunes.apple.com/us/app/igeolog/id395150115?mt=8#> for more information



FORTHCOMING SEMINARS AND EVENTS

to be presented at
GSA (Victoria Division) meetings

Note: unless otherwise indicated, all 2010 talks will be held in the
Fritz Loewe Theatre, Earth Sciences Building, University of Melbourne.



The Geological Society of Australia Victoria Division would like
to invite you to our annual Christmas Function!

Date: Thursday December 9th

Time: 5:30pm til 7:30pm

Venue: Museum Victoria

Welcome to our new members!

Henry Renou

Visit the GSAV on www.vic.gsa.org.au or the GSA on www.gsa.org.au
• Renewing your GSA membership is easy - it can now be done online. •

CONSIDER CONTRIBUTING TO TAG!

It is member contributions which make
TAG a member magazine – please keep the
contributions coming and assist with informing
all of the membership (not just your Division)
about your activities.

Please send your news to: tag@gsa.org.au



GSA (VICTORIA DIVISION) COMMITTEE

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