



# ADELAIDE 2014 THE HUMAN FACES OF SCIENCE

# CONASTA 63



**CONASTA 63 attracted an incredible 500+ delegates from across Australia, and showcased some of SA's most amazing people, food, facilities and landscapes.**

Conference Organising Committee report by Dr Jane Wright

Three years ago, when our CONASTA Organising Committee (COC) first began planning CONASTA 63, our vision was to showcase some special aspects of both Adelaide and South Australia. We planned to provide a first class program of exciting keynote speakers, engaging onsite and offsite workshops and cutting edge science presentations, together with a stimulating, enjoyable and, at times educational, social program. We faced some issues and

problems on our journey, but I believe that we broke some new and interesting ground and facilitated a highly successful and memorable conference.

An early milestone was the selection of the University of Adelaide as our conference venue. Located in the centre of Adelaide's exciting North Terrace cultural precinct, the campus provided a multitude of different facilities, including the Braggs lecture theatre and laboratories in the new \$40M

headquarters for the Institute for Photonics and Advanced Sensing (IPAS). As well, it is close to a wide variety of excellent hotels, restaurants and other institutions like the Botanic Garden, the Zoological Gardens and the South Australian Museum. Dean of Science, Professor Bob Hill and his staff provided unprecedented support, both before and during the conference.



The Braggs Theatre was a fantastic venue for C63 keynote presentations.



One of the successful innovations for CONASTA 63 was developing four introductory sessions before the official Welcome Function on Sunday afternoon. These included the Science Education Technicians Australia (SETA) AGM, followed by a Science ASSIST information session in which participants were shown the latest resource to support implementation of the Australian Curriculum: Science. At the Delegates New to CONASTA session, CONASTA first-timers were given valuable tips and advice from old CONASTA hands, while at our one hour Pre-Service Teacher Forum, 25 students from all three teacher training courses in SA had the opportunity to interact and form networks with each other and practicing SA teachers. These newcomers were introduced to benefits of joining their local Science Teachers Association (SASTA), saw some fantastic resources and left with a clutch of freebies. The COC decided not to have specific nominated days for primary teachers and



Keynote addresses exposed teachers to some of Australia's top scientists and the exciting work they are doing.

laboratory assistants. Instead, the program group ensured there was a combination of workshops that suited the full spectrum of participants in every session, from tertiary educators to lab people to preschool teachers. For the keynotes, we looked for a



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mixture of local and national talent whose strong messages were both engaging and relevant to all levels of schooling, while our Cutting Edge session enabled delegates to choose which of six areas of contemporary science they wished to explore. The Science Snapshots session provided an opportunity for three speakers from the Adelaide Faculty of Sciences to provide vignettes of the latest developments in their areas of research. We heard about global tipping points, the secret life of parasites and the innovative development of new antibiotics.

Each of the three double workshop sessions contained two offsite workshops. The benefit of this arrangement, rather than a single session of excursions, was that not all delegates left the conference venue at the same time and excursion sites with restricted hours could be more easily accessed. Offsite locations included Artlab Australia where a

team of conservators provide preservation and restoration services for works of art and historic items, and the Adelaide Wind Tunnel which caters for a wide range of needs in key areas such as aerospace, mining, wind energy, sports and defence.

Showcasing South Australian food and wine was our aim when planning the social program and post conference tours. Food for the Welcome Function and Stanhope Cocktails included fresh Coffin Bay oysters served three ways, Kangaroo Island free range egg frittata, marinated Spencer Gulf prawn skewers, Adelaide Hills smoked salmon with sour cream mini bagels and Maggie Beer pheasant farm pâté. This feast was accompanied by fine wine from different South Australian wine growing regions.

The wine theme followed through to the Conference Breakfast which was held in the tranquil setting of the Botanic Garden restaurant with its spectacular 180 degree views of the gardens and pond. As well as delicious cooked breakfast, delegates were treated to an interesting question and answer session featuring Craig Willson, the founder of Bremerton Wines, and one of his managers, Matt Schmidt. The session was both lively and informative as they answered a variety of questions about growing grapes and making wine; its fermentation and storage, the use of oak, blending and the importance of quality fruit.

Rather than using commercially available tours, we specifically planned our Post Conference Tours to provide an experience way beyond what delegates could access as regular off-the-street tourists. All three tours were really successful and some of us would have liked to be in three places at once!

In consultation with COC member Sheryl Hoffman, organisers Jan and Jeff lined up a great day of food tastings for the delicious Foodies Tour. The group was taken to producers who were passionate about their food, seeing behind the scenes where great food was made. There was wine tasting, morning tea, lunch and lots of quality gourmet foods to buy. Most of the group were from interstate and were all impressed with what SA has to offer. As one participant said, "A great way to unwind after a fabulous conference."

The Kangaroo Island Tour was brilliant, well exceeding the expectations of the participants. It began auspiciously with the sighting of a pod of Southern Right Whales



The trade display area in the University of Adelaide's Hub Central was a hive of activity. Trade displays put teachers in direct contact with providers.





The Gourmet Food tour was interesting AND delicious!

close up at Cape Willoughby on the first morning. A very important element in the planning of CONASTA 63 was the team effort; Sheryl Hoffman chose an excellent tour operator and planned the daily activities, while Peter Turnbull, the group's leader, made a recent visit to Kangaroo Island to establish personal contacts who were able to provide special sessions that took the experience above and beyond the usual tourist menu.

During the Wine Tour, organised by Cliff Rothenberg with Karen Palumbo and Mike Roach, participants tasted a range of wines from the largely unknown Langhorne Creek wine region and enjoyed a sumptuous lunch at Bremerton Wines. One participant commented, "The wine tour was up to its usual high standard and followed on beautifully from the Wednesday breakfast with the winemaker getting us to try a shiraz he was experimenting with different oak treatments, a highlight! Really brought home the scientific method."

Before closing, it is important to recognise the enormous contribution made to CONASTA 63 by all of the organising committee, including Vic Dobos and Kimberley Gaal from ASTA. Everyone on the committee did their best to make significant contributions,

whether it be proofreading, contacting suitable presenters or making brilliant, innovative suggestions. However, the greatest recognition, must go to our CONASTA 63 Convenor, Peter Turnbull. His drive, vision and leadership ensured that collectively we functioned as a great team, supporting each other and complementing each other's strengths. Peter's contribution is elegantly summed up by this comment from a COC member: "You were the glue that held us together and undoubtedly without your extraordinary hard work and attention to detail we would not have had such a tremendously successful conference".



CONASTA 63 Convenor, Peter Turnbull (above) was the driving force behind this outstanding conference. After years of hard work, he had a chance to relax on the Kangaroo Island post-conference tour.



# CONFESSIONS OF A RUTH DIRCKS SCHOLARSHIP AWARDEE

We asked the two winners of the 2014 Ruth Dircks Scholarship to share some of their experiences attending the CONASTA 63 conference in July.

## ADAM TURLEY

O'Loughlin Catholic College, NT

First off, my thanks to Mrs Ruth Dircks OAM and the ASTA organisation for sponsoring my attendance at CONASTA 63; it is indeed a privilege.

One of the great things about being a Science teacher is knowing about 'scientific stuff'. However, the more 'stuff' you know, the more you are aware of how much of this stuff might be bad for us and the planet we live on. Then you must contend with how much of this scientific stuff you want to share with your students and how bleak you want to portray the future from a scientific perspective.

If there is one thing CONASTA 63 has confirmed for me it is that we are staring over the precipice of an unknown and potentially scary future. Professor Joe Schapter's intriguing CONASTA presentation on renewable energy was

one such eye-opener; he showed us a data representation of how much light hits the Earth, and Australia has some of the greatest exposure. We're so well placed for solar photovoltaic generation, but we continue to have state and national policies that prop up an ageing model of fossil-fuel-based power distribution when we know that micro-generation using some degree of renewable sources will be the future. Why not start now?

On top of our addiction to cheap

energy, we are also as a nation facing a severe obesity epidemic. A prediction, such as that made in the excellent presentation by Professor Lynne Cobiack, that the cost of public health care due to our national weight issue will outstrip the revenue made by governments, is extremely scary.

Now at this point one could assume that I would be in a state of despair about the future we face; but I am not. One thing I loved about being in the CONASTA environment is that I was surrounded by the custodians of a brighter future for us all. At CONASTA, not only was I exposed to new and eye-opening information, I was then able to reflect on it with dozens of people around me. All I had to do was smile and say hello; and before I knew it we had launched into an in-depth discussion about what we'd just heard, sharing ideas just like old friends.

We can approach education several ways. One such way is that we're teachers and we get paid to teach what is in the curriculum. Anyone who is doing the job simply to collect a wage, I'll wager, does not attend conferences like CONASTA. Another way to look at our role is to recognise that for all its administrative drudgery and perceived curricular confinement, we are the custodians of the future of Australia—and the progression of mankind and this planet. Just about everyone who has achieved something amazing in science has had a talented science teacher behind them. The hope I have is that we point our students in the right direction and give them a sufficient level of motivation to take on the future for themselves. We all have the ability to educate our students to follow the scientific method and be free, creative and sceptical thinkers from a scientific perspective.

It was indeed a privilege to be surrounded by my 'own kind' at CONASTA. It's nice to know that I am not alone in my interests, ideals and future aspirations.





## MADY COLQUHOUN

Armadale Primary School, WA

What did I gain from the recent wonderful CONASTA conference in Adelaide? Where do I begin?

Let's start with the keynote speakers. With an extremely diverse set of topics from the fantastic keynotes, including the evolution of sclerophyllous vegetation in Australia, molecular visualisation in teaching, photonics and education precursors to encourage STEM as a career to name a few, I was a little concerned I might be out of my depth, but I was surprised at how much I gained from the keynote speakers! As a result of the exceptional communications skills of the variety of presenters I found their talks to be—yes, challenging—but I was able to follow their research and theoretical considerations and at the end be excited about where science and science education is heading!

Can these concepts help me with my teaching, given that I am a primary school science specialist? Definitely! Some of the gained concepts and knowledge can help to bring richness to my Science classes. Some of it is just helping me to understand the breadth of change in science—this is exciting and I can bring this excitement to my students. When some of my more gifted students ask me a tricky question, or need to be directed into an area to consider, I have better information and concepts to do this. Much of the information was relevant in my personal and daily life—either just for professional development or for a stronger personal connection.

Along with the keynote presentations, the workshops I attended have given me a range of practical ideas to use in my Science teaching and connected me with new resources to earmark for future use. Some workshops gave me new information. Others looked at information I already knew and taught, but suggested different ways to tackle it to make it more relevant to students or easier to 'digest'. I particularly enjoyed the practical or classroom-based workshops delivered by teachers, as I know these are tried and true ideas to use in a classroom.

In the trade display area I was able to give feedback for future programs and resource development for primary school resources and view many items of equipment and posters for potential future acquisition. I spoke to many trade reps and managed



to collect a rather large pile of resource material to go through in the near future—much of which I was unaware of prior to the conference. After a wonderful conversation with Jo from ESWA I am delighted to know that my rock sample collection will be in tip-top shape with her planned assistance!

It was great to meet or reacquaint myself with a wide range of attendees and presenters—some of whom (like me) were first time CONASTA attendees. The informal discussions I had with them were very valuable in terms of finding new ideas, solving problems and just sharing resources.

On top of the conference itself was the opportunity to visit a city—and the local attractions—which I have not really explored before. I thoroughly enjoyed the museum, botanic garden and places I had only previously known from the Australian version of the Monopoly board!

My sincere thanks to ASTA and Ruth Dircks for the scholarship supporting my attendance at the wonderful Adelaide CONASTA. I strongly encourage any 'new' teachers or non-regular CONASTA attendees considering attending the Perth conference next year to do so—and to apply for this wonderful scholarship. You will have the opportunity to visit the best state and city in Australia (a bit of bias creeping in), renew your enthusiasm for teaching Science, be encouraged about the outstanding practical, research and educational programs that Australians are involved in, meet like-minded teachers, collect copious amounts of resources and generally immerse yourself in science for a few days.