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Message from the Editor

Here we are with the last issue of Endpoint for 2013. There are many good changes afoot for SETAC Au so please take the time to read.

This issue sees the addition of a number of new faces to the SETAC Au Council. In particular it is with great sadness that Dayanthi will be standing down as our President, however, Dianne Jolley will do a great job as she steps up from the role of Vice President to President. I am sure I speak for the rest of the Council and members of SETAC Au in wishing Dayanthi all the best as she steps down and support for Dianne as she steps into her new role.

Of course 2013 saw Melbourne host our annual conference. I was unable to attend the conference this year and have been jealously reading the report prepared by Kathryn Hassell. It appears that the conference was a great success and everyone who could attend experienced a great conference. I think that the quality of our conferences is fundamental to our success as an organisation. Well done Melbourne!!!

Next year will see the annual conference being a joint venture between SETAC Au and SETAC AP. This conference will be held in Adelaide in September so make sure you include this time in your diaries now so you are able to attend. Details of the conference are included on page 19 and more information will be included in future issues of Endpoint so please stay tuned.

I always look forward to receiving updates from the regions for inclusion in Endpoint and this issue I was not disappointed. The highlight would have to be Ecotox Services Australasia staff participating in a roller derby championship and meeting Dr Karl Kruszelnicki no less. I still have fond memories of Rick’s dedication to JJJ from my days in the Centre for Ecotoxicology at Gore Hill and listening to Dr Karl. I would also like to send a big welcome to our representative from Papua New Guinea, Riall Gabuogi. Looking forward to hearing about the goings on in PNG in future issues.

Finally, it is with great joy that I see Dr John Chapman and Dr Munro Mortimer receive Emeritus Membership in SETAC Au. John was the person who introduced me to the world of ecotoxicology way back in 1991 as my Masters supervisor. I was very fortunate to have John for a supervisor as he was not only an almost limitless source of knowledge and advice he ALWAYS had time for his students, even at 3:00am on a Saturday morning when you accidentally break a centrifuge in the laboratory. After completing my Masters I moved to the Queensland Department of Environment where it quickly became evident that Munro was held in the highest esteem for his environmental chemistry and monitoring knowledge. Any time there was an incident involving the release of toxic materials to the environment you could be sure that Munro’s name would be the first on everyone’s lips and even today, after he has been retired for a few, people still mention Munro’s name.

On the behalf of the SETAC Au Council I would like to take the opportunity to wish everyone a happy, safe and refreshing Christmas break and look forward to catching up with everyone in the New Year.

David Everett (david.everett@ehp.qld.gov.au)
Editor

Sustaining Member

NSW Office of Environment and Heritage
http://www.environment.nsw.gov.au
Welcome to the last issue of Endpoint for the calendar year 2013 and my last report as President of SETAC Au. As my last report I would like to give something of an overview of the journey of SETAC Au over the last few years with a particular emphasis of the last 12 months.

Since joining the SETAC family we have sorted out a number of issues and are now firmly integrated into SETAC, we have a formal groups listing where we can email all members and a formal Council email list though some organisations still block this communication! We are featured in the Globe, and our conferences are advised on the SETAC web page and we even have members from SETAC NA attending SETAC Au conferences! We will provide a report for publishing in SETAC Globe regarding our Melbourne conference.

Again we thank our Secretary and website manager, the ever efficient, Fred Leusch for managing this successful integration with SETAC global and hope that he will continue to guide our new Secretary on this tortuous path. Most membership issues are running smoothly thanks to our Treasurer, Munro Mortimer’s, efforts liaising with SETAC global (albeit with some delays in the return of our share of membership fees).

Our newsletter “Endpoint” with David Everett ably supported by Associate Editor Eric Prochazka has continued to roll off the press, with interesting articles to keep the membership update with SETAC Au news. We sincerely thank David and Eric for the continued success and timely issue of Endpoint and Council for providing their reports to the editor. Endpoint continues to play the important role in keeping us informed of interesting developments in Ecotoxicology and Chemistry, the work of the SETAC Au Council, new projects and new students in Australasia.

Our SETAC Au journal publications have not had similar success in the past year. The Australasian Journal of Ecotoxicology is unfortunately still not finalised though the papers in the last issue have been proof read; printed copies have not been circulated. The new Australasian Bulletin of Ecotoxicology and Environmental Chemistry (ABEEC) with Reinier Mann as its Editor has not sprung to life (yet!). The latter is a result of Journal Impact Factors becoming increasingly important in academia leading to a lack of submissions for this type of publication.

There have been several global SETAC meetings since SETAC Au in Brisbane July 2012. The major meetings were SETAC Asia Pacific in Kumomoto, Japan in September 2012, SETAC North America in Longbeach November 2012 and SETAC Europe in Glasgow, Scotland, May 2013. In Kumomoto we confirmed the joint SETAC Asia Pacific/ Australasia conference to be held in Adelaide September 2014. There are (paper) boomerangs provided by the Adelaide committee chaired by Rai Kookana and Anu Kumar of CSIRO available at the registration desk and I would urge all members to participate in this conference next year. I also attended SETAC Glasgow with a few other SETAC Au stalwarts and found that Scotland lived up to its cold and miserably wet reputation in late spring! It was an interesting meeting, in a historical city; and even had a session on whiskey production as a model sustainable enterprise which minimised disruption of ecosystem services. Unfortunately they did not serve any whiskey at this session – forbidden by the draconian management of the Glasgow conference centre!

I also attended the 2nd International conference on Environmental Pollution, Restoration and Management in Hanoi, Vietnam, April 2013, a SETAC supported meeting where SETAC Au members conducted pre-conference training workshops. I would encourage members who are interested in research collaborations in Asia to attend this conference since it is an excellent insight into work in this region and well supported by SETAC NA and AP.

The 2nd SETAC Au workshop in Papua New Guinea was organised for November 2012 thanks to the efforts of Ross Smith and our PNG representative.
From La Presidenta

The RACI Centenary “Festival” will be held in 2017 and David Wood the Chair of the Centenary Congress met with me to discuss SETAC Au or AP joining as a partner Society. Since a SETAC AP conference is not planned for 2017 the proposal that was put to the membership at the recent AGM was to vote on whether SETAC Au wishes to join as a congress partner or society in 2017. Since no representative for RACI was available to the AGM at our invitation, I explained their offer to the membership. The decision from the meeting will be handled by the incoming SETAC Au Council.

Vice President Scott Wilson and NSW State Representative Tom Cresswell represented SETAC Au at Science Meets Parliament (SMP), as “senior” and “early career” scientist respectively in September 2012; one of the benefits of our membership of Science and Technology Australia (STA). They provided an interesting report in the February issue of Endpoint. I attended the STA AGM in November 2012 where the Chief Scientist of Australia presented his views on the future of science. STA has been active under the new CEO Catriona Jackson with interviews in the Press on Society and Policy and updates to member societies. We wait now to see how Science will progress under the new government.

I was invited to serve on the Independent Expert Scientific Committee for Coal Seam Gas large Coal Mining by the Minister (for the Environment) in November 2012 and the work of the Committee is continuing under the new coalition Government. This is a challenging and interesting role and we hope to contribute towards minimising environmental impacts. I have no doubt that my involvement with SETAC Au was a major driver in the Federal Government’s recognition of my scientific profile and in turn I have ensured that SETAC Au is recognised by the Office of Water Science and the Ministry in Canberra – 2 members of the OWS attended our conference in Melbourne this year. The work of the IESC can be followed on the website.

In keeping with the former ASE tradition of recognising members that have made outstanding contributions to the society and to environmental science; Dr John Chapman and Dr Munro Mortimer were nominated at the last AGM as Emeritus members of SETAC Au. The nominations for these 2 gentlemen have been reproduced in full in this issue of Endpoint. In 2012/13 I have also had the privilege to endorse and recommend two other very distinguished SETAC Au members nominated for an Order of Australia, to the Australian Awards and Honours Secretariat.

We had new SETAC Au banners at the Melbourne conference thanks to the efforts of Munro and Fred, after our last banner went missing in action at the Darwin conference. We also had new printed leaflets to publicise the Society for distribution. The SETAC Au Council endorsed online nominations and voting for the new Council in 2013 and the results went to the AGM for endorsement.

We are sorry to farewell Beate Escher our first Liaison Officer from Council and SETAC Au since she will return to Europe and her affiliation will revert to SETAC Europe. We thank her for her contribution to SETAC Au which included co-chairing the Brisbane conference in 2012.

This report and the Melbourne conference and AGM as you know will be my swan song as President and I have now handed over to the new President, Dianne Jolley. As a migrant Australian, I thank the membership of SETAC Au and the former Australasian Society of Ecotoxicology for your inclusiveness, support and friendship throughout; and for electing me to serve the Society as the second President of SETAC Au and its first female President. I sincerely thank the outgoing Council for their support and dedication; for those long telephone meetings and the enthusiastic “reply all” emails that went back and forth on numerous “out of meeting” decisions. I would like to give special thanks to our outgoing Secretary Fred Leusch and our continuing Treasurer Munro Mortimer, for their efficiency and for keeping me on the straight and narrow throughout these two years; and our Immediate Past President Ross Smith for being an invaluable mentor. I am also very grateful to our two Vice Presidents Scott Wilson and Di Jolley for their support and also for ensuring that I step down on my own terms unlike another recent female leader!

Thank you.

Dayanthi Nugegoda (dayanthi.nugegoda@rmit.edu.au)
President
Introducing the Regional Representative for Papua New Guinea – Riall Gabuogi (RGabuogi@barrick.com)

Riall Gabuogi has worked with Barrick Porgera Gold Mine, in the Enga Province of the PNG highlands for the last 6 years and currently holds the position of Environment Superintendent looking after all environmental monitoring and reporting activities on and offsite.

“What I’ve enjoyed most about working at Porgera, is that every day brings new challenges, and I can guarantee that on any day what you set out to do that day will always end up not being the case.”

Riall’s most memorable environmental experience occurred when he was conducting a coral survey. Riall was being followed by a sea snake when out of the blue a 3 metre tiger shark swam by (bugger that)....... . Needless to say, that was the end of Riall’s marine monitoring career... Maybe he’ll re-visit this career path somewhere down the line.

He would like to thank the team who recently attended the SETAC AU PNG workshop in Madang in having confidence in him and nominating him as SETAC AU’s regional rep in PNG.

Riall Gabuogi (RGabuogi@barrick.com)
So here we find ourselves in the month where we are making that final push before the end of the year before the arbitrary deadline of the festive season and where men with dubious facial year can briefly avoid ostracism.

It didn’t seem too long ago when we were all together in Melbourne and enjoying the excellent program for the SETAC 2013 meeting; a big congratulations to Vin, Dayanthi and the crew (who obviously did their fair share of heavy lifting). From our perspective, the What’s in Our Water symposium slotted into the SETAC meeting seamlessly, in no small part through the efforts of the SETAC meeting organising team. I trust that everyone that attended the What’s in Our Water seminars found them of the same calibre as the broader SETAC meeting and came away better informed people! As always, it was fantastic to catch up with familiar faces and meeting the fresh ones and I always look forward to our annual jamboree.

Now it seems that we are next in line and luckily we have been quietly chipping away at the program organisation, lining up keynotes and making sure the beans add up. The call for sessions has now closed and we have had a very good response; the call for abstracts will be opening very soon (January 2014) so keep an eye on the website for any updates (http://www.setac2014.com.au)

Congratulations also go to the newly elected members of the SETAC Australasia committee and to all those re-elected; Di Jolley our new Presidenta and Peta Neale our new secretary I am sure will quickly fill the oversized shoes that Dayanthi and Fred have left behind. Thanks also for everyone having confidence in me as SA rep again; although there was not much choice you could have voted informally, I suppose! Once again, I’d be more than happy for any members in SA to get in touch and let your voice be heard within our fine society. And, speaking of fine society, what a great pleasure it was to be able to vote for John Chapman and Munro Mortimer as emeritus members – I couldn’t think of two more deserving people.

Over in our little corner of the continent, we all have our noses to the grindstone, our elbows greased up and our shoe leather worn as we keep servicing projects and churning out data. Coal seam gas, winery waste water, monitoring in the upper Murrumbidgee and Lower Lakes and all the “little” projects in between have kept us comfortably stretched. Just to make things more interesting, we unfortunately will soon be losing some talented post-docs (and, not to forget, lovely people); Kate Langdon will be taking up a position with the Office of Environment and Heritage in her home town of Sydney, Meri Gros will be taking up a position in her not-so home town of Uppsala, Sweden and Dayani Moscardi dos Santos will soon be heading back to Brazil because, well, who wouldn’t? On the bright side, we have a recently commenced PhD student, Ophelia Huang, starting within in our labs and in due course she will be joining the SETAC community so keep an eye out for her in the future. She will be busy jumping between the analytical and ecotox labs as she assesses the effects of antimicrobial agents on sediment microbial communities. As for myself, I am currently involved in a review on the use of pharmaceuticals in Asia to determine whether there are any factors that might affect the environmental exposure in this region. It is certainly helping to whet the appetite for the SETAC meeting in Adelaide next year as we get the chance to hear what our Asia Pacific colleagues are up to!

I hope everyone has had a very productive and enjoyable year and I wish all you SETACers out there a well-deserved break over Christmas with the ones you love most!

Mike Williams (mike.williams@csiro.au)
South Australia Regional Representative
Many thanks for all the submissions from the busy NSW members. I’d like to reiterate that we are asking all our members to update their information on the setac.org website so that we have correct contact details and can compile a list of capabilities of all our members.

Ecotox Services Australasia - Zoë Fluit (ZFluit@ecotox.com.au)

It has been a very busy year so far for the Ecotox team and we have been fortunate enough to have bulked our ranks with some great new staff. Kat Selles (ACU) has joined us as a full time Technical Officer, while Julia Fracala (ACU) and Katharine Catelotti (UNSW) have joined us as casuals to help accommodate our heavy workload.

In addition to new staff, there have been two new additions to the Ecotox family! Amandine and Ian welcomed Jack into the world only a few weeks after Monique and Chris had little Ruby join their brood. Amandine is now back part-time from maternity leave, and Chris is about to embark on long service leave to enjoy some time with his family.

Zoë Fluit and Anneke Ralph recently met Australia’s science guru Dr Karl Kruszelnicki. He was attending the fourth round of the 5x5 Roller Derby Championship in Sydney, a tournament in which Zoë’s team (South Side Derby Dolls, or S2D2) is participating in. Both of them were possibly more excited about meeting Dr Karl and getting some funny photos with him, than S2D2...
Back to the work and we have survived yet another NATA audit and managed to add to our already long-list of NATA accredited tests. We are pleased to be able to now offer the following tests as NATA-accredited:

- green hydra population growth test
- *Chlorella* growth inhibition test
- Chironomid survival test
- Copepod (*Gladioferens imparipes*) survival test
- Freshwater shrimp survival test
- Rainbowfish hatching and post-hatch survival test

With the exception of the freshwater shrimp, we are successfully culturing these organisms in-house.

In early October, Rick, Tina, Zoë and Steve travelled down to the SETAC-AU Conference in Melbourne. Held in conjunction with the What’s In Our Water symposium, the theme of the conference was Multidisciplinary Approaches to Managing Environmental Pollution. It was a great opportunity to catch up with our ecotox colleagues from near and far, and hear of recent research findings and ideas for further exploration.

Centre for Environmental Sustainability, UTS – Bec Wood (*Rebecca.Herron@uts.edu.au*)

Here at the Centre for Environmental Sustainability, UTS we were sad to say goodbye to Ben Kefford who has now taken up a new position at the University of Canberra. Lucky for us he is not far away and we will not be without his invaluable input and guidance! Thank you Ben for your contributions to research at UTS.

A successful collaborative grant application for an ARC-Linkage project has been awarded to Ben Kefford, Richard Lim and Ross Hyne (OEH), titled ‘Salty gas: the ecological risk of saline effluents from coal seam gas and other hydrocarbon resources.’ M. Azizur Rahman is back from Japan where he has been continuing his work on biotransformation of As by aquatic plants. Carolina Lopez Vera has submitted a manuscript to the journal of Environmental Toxicology and Chemistry, the article is titled “Toxicity of sodium bicarbonate to two freshwater crustaceans species and it’s increase in Zinc toxicity”. It is currently under review and she is hoping to get good news soon. This article was done in collaboration with Ben Kefford, Ross Hyne and other researchers from the OH&E Department. Rebecca Wood (Bec Herron) has now completed her fieldwork and labwork in North Queensland for the Reef Rescue project and developed a new biomonitoring index that can detect herbicide toxicity in rivers using benthic diatom community changes. Bec is now writing up her results and hopes to publish a few papers over the next six months. Noni Dowsett is now analysing results from her latest lab work looking at heavy metals in sediment and seagrass samples from Lake Macquarie. Daniela Cortez is busily processing macroinvertebrates from the Manning Valley (NSW) 2012/2013 irrigation, enjoying the challenge of identifying to Genus level. She is also excitedly preparing for a field trip back to the Manning River region for the 2013/2014 season, getting on waders and catching bugs.

Simon Mitrovic's group is continuing work on a broad range of topics including environmental flows, dissolved organic carbon and algal blooms. James Hitchcock recently attended the Estuarine Coastal and Shelf Science conference in Shanghai where he presented work on the role of discharge and microbes in estuarine carbon dynamics. Stefanie Mueller is busy finishing her PhD on nutrient effects on cyanobacterial growth in a drinking water reservoir in the Hunter. Her experimental work has now finished and she hopes to submit her thesis before Christmas. Ann-Marie Rohlfs is busy in the lab examining microbial responses to Snowy River environmental flows from Jindabyne Dam. Simon, Ann-Marie and Stefanie recently went to SIL in Budapest to present some results and
sample the fine beer and food. A few honours students are writing up; Grace Corrigan on phytoplankton nutrient limitation and Richard Carney on bacterioplankton responses to flow and carbon. Carla Thomas has also recently started Honours with Simon, Anne Colville and David van Reyk examining algal toxins on aquatic plant communities. Maxine Mowe is visiting the labs at UTS until the end of December. Maxine is doing her PHD at the National University of Singapore, with supervisors Darren Yeo and Peter Todd from NUS, and Simon Mitrovic and Richard Lim from UTS. She has come to Sydney to do some studies on temperature effects on the growth and toxin production of cyanobacteria, and after a rocky start navigating the perils of quarantine regulations and other paperwork, is finally getting some work done.

Richard Lim, Anne Colville and Aziz Rahman are working with ThuyChung Nguyen, a PHD student from Engineering, on a project using a range of toxicity tests to study road dust and runoff. This has involved some very non-domestic uses of dustpan and brush in rather challenging locations!

**ANSTO Institute for Environmental Research - Tom Cresswell** ([tom.cresswell@ansto.gov.au](mailto:tom.cresswell@ansto.gov.au))

We’re progressing well with the snail and prawn nano-cerium work led by Lisa Golding from CSIRO Land and Water as part of the Nano Safety Technology Platform and funded by an AINSE grant. We are looking into whether there are any differences in the dietary uptake of bulk vs. nano cerium in prawns and snails. The autoradiography of the radioisotope-Cd and Zn exposed prawns is going really well and we are planning on conducting a time-series of autoradiography images following Cd bio-accumulation to determine the kinetics of transfer of the metal between internal organs. This will give us some insights into the time taken for a (dissolved) metal to be transferred from the gills to the hepatopancreas and then on to other organs such as the antennal gland (for excretion) and the exoskeleton, where we believe cadmium is being co-associated with calcium.

Freshwater prawn (*Macrobrachium australiense*) section (left feeding on snails loaded with bulk $^{141}\text{Ce}$ (as CeO$_2$) and corresponding autoradiography image (right) where $^{141}\text{Ce}$ is clearly visible in the mouth and stomach. Snails had been “pulse” fed on algae associated with bulk $^{141}\text{Ce}$ (as CeO$_2$). Images from the study between CSIRO (Lisa Golding) and ANSTO (Tom Cresswell). ANSTO LifeSciences conducted the autoradiography.

**Tom Cresswell** ([tom.cresswell@ansto.gov.au](mailto:tom.cresswell@ansto.gov.au))

New South Wales Regional Representative
The Bioanalytical Tools Group at Entox

We are very excited to be co-leading the Bioanalytical Tools group at Entox and 2014 is shaping up to be a big year for us! We will be working on a number of projects including application of our bioassays to alternative water sources (including stormwater and coal seam gas water) as well as samples from the Danube and Rhine Rivers as part of the European Union Project ‘SOLUTIONS’. We will continue to work on disinfection by-products through Daniel Stalter’s Marie Curie fellowship. Apart from water quality assessment we will also continue to expand the bioanalytical tools for sediment and marine wildlife toxicity testing, as well as tattoo ink. Beate’s spirit will stay with us and we will continue to collaborate with her and plan to visit her new group at Helmholtz Environmental Research Centre in Germany.

Janet Tang (y.tang@uq.edu.au) and Peta Neale (p.neale@uq.edu.au)

Beate’s Farewell

After five years of exciting research and many adventures in Australia, it time for me to return to my home country. Time to look back, say good-bye and thank you. I felt warmly welcomed by the ASE family in 2009 (Rai - thank you for the boomerang, which now travels across the oceans to Europe but hopefully comes back some time) and I was thrilled to see the transformation to SETAC AU. I did not miss a single conference (and I plan to continue that way), the dancing is clearly superior to any other SETAC meeting.

Thanks to Jochen Mueller who generously shared many projects to provide me with a kick-start and thanks to many fruitful collaborations (with too many people to name them all), the Bioanalytical Tools Group at Entox grow with an almost exponential rate (wonder when we reach steady state). Name it, we characterise it with bioassays- be it drinking water, oil spills, turtle blood or tattoo ink, just to mention a few of our favorites.

Plant a tree, have a child, write a book – two down, the third one was on the agenda for Australia. No simple feat but accomplished with a help of an excellent team- Fred Leusch, Heather Chapman and Anita Poulsen. And some even say they dare to go for a second edition in the future!

Janet Tang and Peta Neale will jointly co-lead the Bioanalytical Tools Group at Entox from 2014. I wish them all the best and I am convinced their research will continue to flourish (I just hope they need me a little bit so I have a reason to return as often as possible).

Peta’s role in the European Project “SOLUTIONS for the present and future emerging pollutants in land and water resources management’ will be another strong tie between Entox and my new department at the Helmholtz Environmental Research Centre UFZ in Leipzig. Looking forward to continued collaborations in this and other projects.

So rather than saying farewell, I say “Auf Wiedersehen” – see you again soon!

Beate Escher (b.escher@uq.edu.au)
Melanie Shaw and Mark Silburn (DNRM) have recently completed a study to measure half-lives for priority herbicides on cropping soils from Queensland. The trial was run in a temperature and moisture controlled environment on 9 soils with a range of pH and textural properties and on cane crop residues. Field trials have also been run on many of the sites that the soils came from through the Paddock to Reef (P2R) Program. The study was designed to provide locally relevant data to use in prediction of the fate of herbicides in agricultural water balance modelling. In the P2R program, these agricultural water balance models are being used to predict the loads of herbicides coming from paddocks under scenarios of management practice adoption by growers. The paddock scale modelling links to catchment modelling to predict loads entering the Great Barrier Reef lagoon.

Melanie is also working on a project in collaboration with CSIRO and DAFF economists to investigate both the economic and environmental benefits of adopting improved herbicide management strategies on cane farms in Queensland. The off-site transport of herbicides has been modelled under scenarios with alternate herbicide product choices (PSII herbicides versus some of the newer products like flame/balance) and improved tillage and traffic management. This work will help to identify the factors that provide most environmental benefit at least cost to the farmer. This project is in the write up phase with papers being planned for publication early next year.

Melanie Shaw (Melanie.Shaw@dnrm.qld.gov.au)

Qld Chapter Meeting (Christmas Party)

Firstly, I would like to wholeheartedly thank to all the contributors to this update who have managed to find the time in their busy schedules.

Secondly, I am happy to announce that Queensland members will have a chance to convene on the 12th of December at the Ecosciences Precinct (Boggo Road, Dutton Park) for an hour of short presentations showcasing some of the activities of the Society’s three arms (i.e. Academia, Government and Industry) to all the invited and the lucky plus ones; and later at a pub for an evening of socializing and shenanigans.

The event is being organised by your new Qld Regional Representative, Erik Prochazka, and Dr Rachael Smith from DSITIA (providing all the necessary know-how regarding event planning); with philosophical assistance from Dr Jason Van De Merwe, Dr Fred Leusch, Dr Reinier Mann, Dr Dianne Jolley and others.

We are looking forward to seeing all of you who can make it on the night and to those who cannot we would like to extend our best wishes, Merry Christmas and a Happy New Year 2014.

Erik Prochazka (e.prochazka@griffith.edu.au)
Queensland Regional Representative
Hello from Tasmania!

Well the 2013/14 summer field season is just about in full swing. The first A319 flight departs for Casey in the last week of November and the Aurora Australis is currently at sea somewhere on route between Davis and Hobart bringing back last years wintering team. This year is somewhat scaled back on the Ecotox front, however we do have smaller teams heading into Casey and to Macquarie Island. A team led by SCU PhD student Fran Alexander and Prof Peter Harrison, and including 3 other PhD students James Black (SCU), Trish Corbett (Deakin Uni) and Costas Kotzakoulakis (Macq Uni) will investigate the toxicity of physically and chemically dispersed fuels and the behaviour of fuels and dispersants in cold waters at Casey. This is work is being done in part to assess the suitability of dispersant use to manage fuel spills in cold water environments. This is the first season south for James and Kostas so both are very excited and all trained up and ready to go! For the first time in several years, Martin Riddle is also going to Casey this season to work on site selection and set up of equipment for next season when the Free Ocean CO2 Enrichment (FOCE) experiment will be deployed for the first time in polar waters to examine impacts of acidification on nearshore communities. I think Martin is also pretty excited to be getting back into the field and to be heading south again!

Also going to Casey this season is Anna Nydahl, who recently was awarded first class Honours from UOW for her research on the impacts of fuels on Antarctic moss and terrestrial algae which she conducted under the supervision of Antarctic moss guru, Sharron Robinson. Her research will go towards the development of remediation targets for sites contaminated with fuels in Antarctica. Anna will be collecting new samples of the most suitable species of moss for further testing. Also finishing her Honours this year at UOW is Gabriella Macoustra, who worked alongside Di Jolley in developing germination tests to examine the inhibitory effects of fuels on the growth of Macquarie Island plants. A third Honours student, Liz Richardson has also just been awarded First Class Honours through UTAS for her research on changes in microbial functional genes as indicators of soil health and their response to fuel contamination in Antarctica. Liz is now working as a scientific officer with our remediation group.

PhD student Jess Holan (UOW) will head to Macquarie Island to work on her research into interactive impacts of climate change and metal contaminants on subantarctic marine biota. This season she will be ably led and assisted by Bianca Sfiligoj, who is just completing final reviewer edits on her PhD thesis through Deakin Uni, co-supervised by Julie Mondon, before she can call herself Doctor! Also recently completing his PhD thesis is Tom Mooney (UNE), who has just accepted the laboratory manager position at ERISS in Darwin. Huge congratulations to both B and Tom Tom on great achievements! We will certainly miss you in Hobart and at the AAD Tom, but wish you all the best for this new and exciting position.

Grant Hose is currently at Macquarie Island with our new PhD student Ingrid Errington.
They are busily setting up mesocosms with soils spiked with a concoction of hydrocarbons to mimic the residual fuel products remaining on site after fuel degrades over time. Ingrid will examine the impacts of residual fuels in soils on microbial and invertebrate communities. This builds on Tom’s previous work looking at the impact of fresh fuel spills in soil, and will help our remediation team in setting protective guidelines which will enable “sign off” of fuel contaminated sites on the island.

Meanwhile, back in Oz... Francesca Gissi (UOW) is working hard (and long, due to the ridiculously slow response times of test species) at CSIRO with Merrin Adams and Di Jolley on her Honours project examining the toxicity of metals to Antarctic marine microalgae. Kathryn Brown (SCU) is in the final stages of writing up her PhD thesis on the toxicity of fuels on early life stages of Antarctic marine invertebrates, so there is light at the end of the tunnel for her. And in Kingston, Cath King, Jane Wasley and Ashley Cooper, apart from supporting teams in the field, will have the season off, and will be spending the next few months at home, enjoying the Tasmanian summer and catching up on lots of data analysis and paper writing!

Merry Christmas, happy holidays, and all the best for 2014 to everyone!

Catherine King (cath.king@aad.gov.au)
Tasmania Regional Representative
NOMINATION FOR DR JOHN CHAPMAN – Emeritus Membership

Professor Dayanthi Nugegoda – President SETAC AU 2012/13.

One way in which professional associations recognise outstanding contributions by members is the award of honorary life membership.

Accordingly, in SETAC (and in the former Australasian Society for Ecotoxicology), those special individuals who have made truly outstanding contributions to the environmental sciences and who have demonstrated active participation in the organisation are recognised by the award of Emeritus (honorary life) Membership.

Thus it is my great privilege to nominate Dr John Chapman for Emeritus Membership of SETAC. This nomination has been seconded by 2 members of Council - Dr Munro Mortimer and Dr Scott Wilson and we now ask the SETAC AU membership to endorse this nomination and to recommend John to the Board of our Geographic Unit SETAC Asia Pacific for Emeritus Membership.

Dr John Chapman

John is one of the founders of the science of ecotoxicology in Australasia, having worked in the field for approximately 25 years. Some of you may not know the full extent of John’s contribution to ecotoxicology in Australasia, because he is one of the true ‘quiet achievers’ and a ‘true scientific gentlemen’. John has always been one of those people who gives credit to his colleagues and never seeks the limelight. He has played a lead role in most of the major developments in Australasian ecotoxicology. His knowledge and wisdom are held in very high regard, and he has been a mentor to many of us, including me.

John obtained his PhD from the University of Sydney in organic chemistry in 1975. He then undertook a 2 year post-doc in the Department of Biochemistry at the University of Liverpool (UK), where he worked on insect defensive steroids. In 1977 he returned to Australia and commenced his long career in the NSW Public Service. He began in the NSW Department of Health, where he worked on human occupational exposure to pesticides and industrial hazards. In 1981 he joined the NSW State Pollution Control Commission and researched the biology of streams in Kosciusko National Park, with a focus on the effects of sewage pollution.

In 1983 John commenced work with Dr Geoff Thompson to establish Australia’s first dedicated Ecotoxicology laboratory. Other key players in this development were Professor Margaret Burchett and Dr David Leece, both life members of ASE, now Emeritus members of SETAC. The laboratory and the Ecotoxicology Section of the NSW Environment Protection Authority (NSW EPA), as it was known then, were housed in the University of Technology Gore Hill Campus. A strong collaboration developed between the NSW EPA and UTS that led to the joint establishment of the Centre for Ecotoxicology (CET) again located at the UTS.

By 1993 John was the manager of the Ecotoxicology Section of the NSW EPA and co-director of the CET. Under John’s guidance the Ecotoxicology Section and the CET steadily expanded including the development of a research program – which was extremely innovative in a regulatory authority.

From within the CET came the idea of creating an Ecotoxicology Society and in 1994 the Australasian Society for Ecotoxicology (ASE) was founded. John attended the very first
meeting that led to the formation of ASE and was a founding member. He volunteered to take on the onerous task of creating a scientific journal for the society thus becoming the Editor in Chief of the Australasian Journal of Ecotoxicology from 1994 to 2004. He received an NSW EPA “Outstanding Performance Award” for this work. In 2004 he was elected President of ASE.

John continued to lead the Ecotoxicology Section in all its various guises until 29 June 2012 when he retired. His key roles in these positions included Regulatory, Research and Management, Leadership and Mentoring

Research

John supervised 7 PhD and 4 MSc students. He published over 50 papers in the refereed scientific literature, 80 presentations in conferences with associated abstracts or posters and 12 consultancy reports on aspects of ecotoxicology, including for the Hong Kong government.

Under his leadership, the Ecotoxicology Section produced around over 150 peer-reviewed articles between 1997 and 2010, plus a similar number of commercial test reports.

In recognition of his work in ecotoxicology John was made an Adjunct Professor at the University of Technology, Sydney, in 1998. He also served on the Boards of the African Journal of Aquatic Sciences, the Australasian Journal of Ecotoxicology and Current Topics in Ecotoxicology and Environmental Chemistry.

Regulatory

Much of John’s work has involved providing scientific advice to policy and operational areas of the NSW Public Service. This has included advice on guidelines, licence conditions for chemicals, impact statements, environmental effects of chemicals and pesticides, and pesticide permits. He has also contributed to APVMA and NICNAS reports on chemicals, spills and incidents.

John was the lead author of the toxicant chapter for the Australian and New Zealand Guidelines for Fresh and Marine Water Quality and was on the steering committee for those Guidelines. His contribution was integral to the adoption of risk-based principles for deriving and applying water quality guidelines and to the guidelines being internationally acknowledged as world-leading. He received an NSW EPA “Team Outstanding Performance Award” for this work.

John also made major contributions to the Australian Academy of Science and Technological Engineering report on Pesticide Use in Australia, where he wrote chapters on pesticide properties, residues and ecotoxicology. He received an NSW EPA “Outstanding Performance Award” for this work.

John was the NATA signatory for the laboratory accreditation for the Lidcombe ecotoxicology laboratory, which has acute and chronic standard tests with cladocerans, fish, earthworms, sea urchins, algae and bacteria. He is also on NATA’s assessors’ panel for biological testing.
Management, Leadership and Mentoring

John was very successful in demonstrating the importance of ecotoxicology and was able to obtain extensive funding to significantly upgrade the laboratories at CET in 1994. Then again in early 2000 $8 million funding was obtained for purpose-built state-of-the-art ecotoxicology laboratories at Lidcombe. Both laboratories were at their time the best in Australasia.

John’s calm, friendly low stress approach, willingness to always make time for people, and to share his expertise all greatly contributed to making CET and the Ecotoxicology Section leading lights in Ecotoxicology in Australasia. John’s numerous students and ex-staff are now scattered throughout Australasia in senior regulatory, research, consulting and industry positions, ensuring the future of ecotoxicology.

John’s key achievements have been three-fold:

1. fostering the development of the foundling science of ecotoxicology in Australasia,
2. managing, leading, supervising and mentoring a large cohort of many of Australasia’s leading ecotoxicologists, and
3. having ecotoxicology very firmly embedded into current regulatory practice throughout Australia.

John Chapman has made an outstanding contribution to the science of ecotoxicology in Australia, and to the Australasian Society of Ecotoxicology which morphed into SETAC Australasia and we ask your endorsement of our recommendation to award him Emeritus Membership of SETAC.

Nominated by:

Prof. Dayanthi Nugegoda
President SETAC AU 2012/13

Seconded by:
Dr Munro Mortimer
Treasurer SETAC AU 2012/13

Dr Scott Wilson
Vice President SETAC AU 2012/13
Nomination for Life Membership for Dr Munro Mortimer for SETAC-Australasia

We the undersigned hereby nominate Dr Munro Mortimer for life membership for SETAC-Australasia. We believe this honour should be granted in recognition of Munro’s long commitment to the precursor organisation, the Australasian Society for Ecotoxicology (ASE), his commitment to SETAC-Australasia (S-AU) since inception, and his continuing service to SETAC at the Asia Pacific Geographic Unit level (S-AP).

Dianne Jolley, SETAC Au President presenting Munro with SETAC Au Life Membership

Munro was a founding member of ASE in 1994, contributed a paper to the first volume of the Australasian Journal of Ecotoxicology (AJE), and served on its council as Treasurer since 1997 (when he was also treasurer for the first ASE Brisbane conference organising committee). He has since then often been Treasurer on the conference organising committees, including the SETAC AU Brisbane 2012 Conference and the upcoming SETAC AU Melbourne 2013 Conference. He has also been Treasurer of the first (in 2010) and now the second ASE/S-AU PNG workshops. Munro has been greatly appreciated as the effectively perpetual Treasurer because of his great attention to the details of the organisation’s accounts, and the remarkable long run of strong financial position of the society as a result of that. That ASE generally made a substantial profit from conferences has in no small way been due to his oversight of the financial planning of all conference committees. He has continued as Treasurer since ASE became S-AU, and has also become Treasurer of S-AP since 2011. This of itself would be an outstanding contribution by any member, but Munro’s contribution has been substantially more than that.
As all who have served on Council with Munro will attest, his contribution to the activities of Council have always been much more than just those of Treasurer. He is the proof-reader that all appreciate and know they can rely on. He is the fact checker that Council so regularly needs. He is the de-facto custodian of the constitution, and recently the person primarily tasked with a review and drafting of suggested minor constitutional amendments. Between Council meetings, there are numerous small tasks that must be attended to, and Munro has always been one of those few who can be relied upon to volunteer to attend these matters. Not the least of these tasks has been as a sounding board for all the presidents he has served under.

Munro retired in mid-2011 from his position with the Queensland (QLD) government. Many would take that opportunity to step back from unnecessary duties, and simply enjoy a bit of well-earned rest. Not Munro. His commitment to SETAC has only increased (as mentioned above, he has since also joined the S-AP Board). He remains one of the most active members of the S-AU Council and of the S-AP Board.

Munro has not just been committed to the Society, but also to the sciences of environmental toxicology and chemistry. He has been at the forefront of the development and use of passive sampling devices as routine monitoring tools and, in his position in the QLD government environment agency, has done much to further the use of the tools to assess impacts to receiving waters in QLD and nationally. In his retirement, he has been on the editorial team for a soon to be published ebook on "Quality Assurance and Quality Control of Environmental Field Sampling". He has been, and continues to be a very influential figure in the use of environmental toxicology and chemistry in the regulation of environmental impacts in QLD and Australia.

We believe that this outstanding record of contribution to SETAC-Australasia deserves recognition, and are proud to nominate Munro for Life Membership.

Signed by:

Ross Smith (Past President), Scott Wilson (Vice-President) and Fred Leusch (Secretary)
Abstracts are now invited for the SETAC Asia Pacific and SETAC Australasia (ASE) Conference in Adelaide, South Australia from 14-17 September 2014 with the theme "Advancing science for a sustainable future."


There has already been an excellent response to the invitation to submit session proposals. This is now your opportunity to contribute to three days of thought-provoking discussion, information-sharing, strategizing and problem solving.

Confirmed keynotes speakers include Dr Paul Bertsch CSIRO, Australia; Professor Norihiro Itsubo Tokyo City University, Japan; Dr Phil Reeves Australian Pesticides and Veterinary Medicines Authority, Australia and Professor Charles Tyler University of Exeter, United Kingdom.

We are looking forward to creating a stimulating program as well as an engaging space for you to network, reconnect with colleagues and meet new people. We are also delighted that the Metals Environmental Research Associations is the Platinum sponsor.

Mark it in your diary now or email setac2014@plevin.com.au to be added to the mailing list.

**A/Ed Opportunity**

‘The African Journal of Aquatic Science, which covers all African waters, is looking for a second Associate Editor to help handle its ecotoxicology manuscripts. Please would anybody with an interest in African research contact the Editor, Mike Coke at ajas.ed@gmail.com’
The third SETAC Australasia conference was recently held at the University of Melbourne, Australia from 1-3 October, 2013.

The Opening Ceremony kicked off on Tuesday morning, and following a few words from Vin Pettigrove (Chair) and Dayanthi Nugegoda (Co-chair/SETAC-AU President), Cheryl Batagol, the Chair(wo)man of the Victorian Environmental Protection Authority gave an informative presentation on the current challenges of effective pollution management, which really set the scene for this year’s conference theme “Multidisciplinary approaches to managing environmental pollution”. The theme aimed to encompass a broad and diverse mix of session topics that would be relevant to ecotoxicologists, environmental toxicologists and environmental chemists.

The first plenary was delivered by Professor Paul Worsfold, entitled “Space and time: the final frontiers for trace element biogeochemistry in aquatic systems” which provided an excellent overview of novel and emerging flow injection techniques for quantifying trace elements in marine samples. The rest of the day showcased a wide variety of presentations, over three concurrent sessions including aquatic ecotoxicology, mixtures and multiple stressors, environmental chemistry, water and sediment quality guidelines, environmental omics and human and mammalian toxicology and risk assessment. This was followed by an afternoon poster session, then the SETAC-AU AGM and a student networking function. Despite that very busy first day, delegates continued on late into the night with further informal networking and socialising by way of a pub crawl/trivia activity, taking in some of the interesting history and culture behind some of Carlton’s iconic local pubs.
The second day of the conference was started with a plenary presentation by Professor Urs von Gunten, entitled “Micropollutant abatement in urban water management: From reaction kinetics to toxicological assessment”. His talk detailed the need for better treatment technologies to ensure adequate removal of micropollutants from water, and was a very fitting start to the What’s In Our Water symposium which took place alongside the SETAC-AU sessions on Wednesday. The day was again filled with a diverse mix of presentations and poster spotlights (5 minute snapshot presentations) in topics ranging from pollution in urban environments, to bioanalytical tools for risk assessment and multidisciplinary sampling approaches. In the afternoon we had another excellent plenary presentation by Professor John Stark. He spoke about urban stormwater pollution and discussed some of the various biological and molecular techniques that are currently being utilised to characterise impacts from stormwater, in a presentation entitled “Weathering the storm: ecotoxicology of urban runoff”.

The conference dinner was held on Wednesday night at the iconic Melbourne Cricket Ground (MCG). Delegates were treated to pre-dinner drinks in the Melbourne Cricket Club (MCC) Sports Museum, where a variety of Australian sporting memorabilia is on display, including the great Don Bradman’s cricket bat! Dinner was held in the AFL Dining Room, which is a large function room with amazing views out towards the city and Rod Laver Arena on one side, and out to the MCG ground in the other direction. It was a fantastic night, filled with good food, good wine and arguably of most importance, lots of dancing! The dance floor swelled to more or less maximum capacity once the band got started, and as always it was great to see so many scientists (both young and old!) up and at it.
Despite the late night on Wednesday, we were very pleased to see most of the delegates arrive bright and early the next day in time to hear this year’s Tony Roach Memorial Plenary, which was presented by Dr Kim Fernie. Her talk, entitled “Exposure and effects of various flame retardants on birds” provided a thorough and fascinating account of a range of biological impacts that have been observed in both wild and captive birds exposed to brominated flame retardants. Being a Canadian native and unaware of Melbourne’s notorious ‘4-seasons-in-one-day’ weather patterns, Kim commented early in the conference about how nice the Melbourne weather was, which earned her the “Melbourne Spring Appreciation Award”. Although it did get cold and windy one day, we were very fortunate that for the most part the weather was co-operative throughout the conference (very much to our surprise!).

The remainder of the day was filled with a variety of sessions ranging from metal contamination in the environment, environmental monitoring and assessment, microplastics and persistent organic pollutants, aquatic and terrestrial risk assessment and environmental chemistry. Following an intensive three days of conference activities, it all came to a conclusion on Thursday afternoon at the Closing Ceremony, with a wrap up from the conference chair, an advertisement for next year’s SETAC AU/SETAC AP joint conference to be held in Adelaide, and most importantly, the awarding of several student prizes. We were very fortunate to receive funding for prizes from a variety of sponsors, so were thrilled to be able to award several prizes to students based on the quality of their oral and poster presentations.
James Black (Marine Ecology Research Centre, School of Environmental Science and Management, Southern Cross University, NSW) – Lethal and sub-lethal effects of copper on the juvenile brittle star *Amphipholis squamata* at a range of selected temperatures.

James was also the lucky winner of the iPad for completing the SETAC Member’s Survey.

James Black

"Best Research Poster by a PhD Student or Early Career Researcher in Environmental Chemistry"

**PROUDLY SPONSORED BY THE NATIONAL MEASUREMENT INSTITUTE**

Jenna Roberts (Research School of Earth Sciences, Australian National University, ACT) - Ecotoxicological assessment of the Lower Molonglo/Upper Murrumbidgee Catchment: a combine laboratory and field evaluation.

"Best Research Poster by a PhD Student or Early Career Researcher in Environmental Chemistry"

**PROUDLY SPONSORED BY THE NATIONAL MEASUREMENT INSTITUTE**

Harpreet Bhatia (CSIRO Land and Water / School of Agriculture, Food and Wine, Waite Research Institute, the University of Adelaide, SA) - Adult male Murray rainbowfish (*Melanotaenia fluviatilis*) as a test model to assess anti-androgenic effects of flutamide in Australian riverine environment.

"Best Research Presentation by a PhD Student or Early Career Researcher in Environmental Chemistry"

**PROUDLY SPONSORED BY THE NATIONAL MEASUREMENT INSTITUTE**

Edward Nagul (CAPIM / School of Chemistry, The University of Melbourne, VIC) - Flow injection determination of phosphate in natural waters using UV photoreduction of molybdophosphate.

"Best Student Research Presentation in the What's In Our Water Symposium"

**PROUDLY SPONSORED BY CSIRO PUBLISHING**
Patricia Cunico Ferreira (CSIRO Land and Water / Institute of Nuclear and Energy Research, Sao Paulo, Brazil) – Removal of colour and reduction of toxicity in reactive dyes using zeolites from coal fly ash.

Katelyn Edge (Evolution and Ecology Research Centre, School of Biological and Environmental Science, University of New South Wales, NSW) - Use of biomarker responses in deep-sea sponges to assess impacts of drilling and fluids.

Rajani Jagtap (Institute for Applied Ecology, The University of Canberra, ACT) - Measurement of mercury and selenium species in sediments and biota by HPLC-ICPMS.
On behalf of the organising committee we would like to say a big thankyou to everyone that attended the 2013 SETAC AU Melbourne conference. It was a great success and would not have been possible without your participation. Sponsorship greatly helped the conference this year and we would like to thank all sponsors for their support: CAPIM, RMIT, Water Research Australia, Intertek-Geotech, Golder Associates, Agilent Technologies, CSIRO Publishing, Vision Environment Queensland, Ecotox Services Australasia, Advanced Analytical, National Measurement Institute, Hydrobiology and EPA Victoria. We would also like to thank SETAC AU Council for their assistance.

Kathryn Hassell  
(khassell@unimelb.edu.au)

Student Function

The SETAC student function took place at Naughton’s Hotel on the Tuesday night of the conference. This event featured three speakers from diverse backgrounds, who shared their experiences in each of their professions and research areas; Dr. Adam Wightwick, an environmental consultant with experience working for the Victorian Government in assessing the environmental impact of agriculture, Dr. Kim Fernie, whose expertise in environmental research and avian ecotoxicology was also the subject of one of the conference’s plenary presentations, and Merrin Adams, a research team leader with CSIRO working on developing new, creative bioassays to determine the bioavailability of contaminants. The event was engaging, and offered a valuable opportunity to discuss multiple aspects of a scientific career. The subsequent discussion had a considerable focus on employment options in both academia and industry, means of finding and seizing career opportunities, strategies for job-seekers in résumé writing, and new perspectives on the demand for scientific skills. The event was a great opportunity to not only socialise, but to discuss with experienced scientists the practical elements of career-building.

Eddie Nagul  
(e.nagul@student.unimelb.edu.au)
Call for papers

We invite all SETAC AU members to submit new manuscripts to the Australasian Bulletin of Ecotoxicology and Environmental Chemistry. The Bulletin is a publication of the Australasian Chapter of the Society for Environmental Toxicology and Chemistry (SETAC AU), and is a regional publication dedicated to publishing original, scientifically-sound research dealing with all aspects of ecotoxicology and environmental chemistry relevant to Australasia. Papers published may be research reports, review papers, short communications, descriptions of new techniques and equipment, thesis abstracts, thesis literature reviews and comments on previously published papers.

All papers published in ABEEC will be made freely available through the website for SETAC AU. It will be an online publication only.

This is how the submission process works. Contributions should be submitted to the editor as a manuscript in the same manner as you would for any other journal. You also need to provide the name(s) of at least one reviewer to assess the manuscript. All manuscripts will be sent out for review by at least two experts in the field. After the review process, manuscripts will be sent back to authors for final revisions prior to online publication.

If you wish to submit a manuscript to ABEEC or would like to discuss publication of a manuscript, then please contact the editor. A copy of Instructions to authors is also available from the editor.

We look forward to receiving your manuscripts.

Reinier M Mann (reinier.mann@gld.gov.au)
Editor – ABEEC
Membership Details Update

How to join SETAC Australasia

Even if you are a SETAC member based in Australia, New Zealand or PNG, you may not be a member of SETAC Australasia. You can join SETAC Australasia by going to http://www.setac.org/. After logging in, go to the SETAC Australasia page and click ‘Request Membership’ (see below). You can find this page by either searching ‘Australasia’ or going to the ‘Get Involved’ tab on the left of the page, then ‘Regional Branches and Chapters’, then ‘Asia Pacific Chapters’. There are no additional fees attached to the SETAC Australasia chapter.

Current SETAC Australasia Members

To make sure you don’t miss out on attending SETAC get-togethers in your state or territory or contributing your latest research to Endpoint, please update your SETAC profile to include your location so your regional rep can get in touch with you. You can do this by logging into http://www.setac.org/ and selecting ‘Manage Profile’, then ‘Edit Bio’.

Peta Neale (p.neale@uq.edu.au)
SETAC AU Secretary
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