

13th Australasian Society for Ecotoxicology Conference Toxicants in a changing environment

20-23 September 2009 | Adelaide | South Australia



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Monday 21st September 2009



7:30	9:00	Registration open (Equinox room)	
9:00	9:30	Opening ceremony (Eclipse Room)	
9:30	10:30	Keynote - Dr Jenny Stauber - Contaminants in aquatic systems in a changing climate (Eclipse Room) Chair: Dr Anu Kumar	
10:30	11:00	Morning tea (Equinox room)	
	Location	Margaret Murray Room	Eclipse Room
	Session	Climate change and ecosystem impacts	New developments - I
	Session Chair	Dr Jenny Stauber	Prof. Allen Burton
11:00	11:20	Johnston - Contaminants reduce the richness and evenness of marine communities: A review and meta-analysis	Young - Development of a novel in vitro endocrine disrupting compound (EDC) screening assay
11:20	11:40	Melville - Ecological effects of warmer water temperatures in a Central Queensland river - Potential implications for climate change	Myers - Uptake and depuration of Nodularin in seafood species: A human health risk assessment
11:40	12:00	Johnston - Contemporary ecological threats from historical pollution sources: experimental and real world resuspension of contaminated sediments	Taylor - Cadmium Exposure – Dose – Response Relationships and Toxicity in <i>Tellina deltoidalis</i>
	Session	Hydrocarbon ecotoxicology and remediation	
12:00	12:20	Mooney - Soil invertebrate community response to petroleum hydrocarbon contaminants in sub-Antarctic soils over an organic carbon gradient	Casten - Relevance of milkfish (<i>Chanos Chanos</i>) as a tropical marine species for acute and chronic effect studies in eco-toxicology
12:20	12:40	Wasley - Phytoremediation of hydrocarbon contaminants in sub-Antarctic soils	Sfiligoj - Evaluation of pollutant induced stress in Australian grapsid crab, <i>Cyclograpsus granulatus</i>, by neutral red dye retention assay
12:40	13:00	Colville - Use of Lemna toxicity tests to evaluate Fenton oxidation cleanup of the herbicide metsulfuron methyl from water	Smith - Fluorescence fingerprinting: fast, accurate and cost-effective herbicide identification
13:00	14:00	Lunch (Equinox room)	

Location	Margaret Murray Room	Eclipse Room
Session	Soil and sediment ecotoxicology	New developments - II
Session Chair	Vin Pettigrove	Prof. Steve Klaine
14:00 14:20	McLaughlin - Recommendations of the SETAC Pellston Workshop on deriving ecological soil quality standards	Doyle - Assessing the quality of sea urchin sperm using flow cytometry: an ecotoxicological perspective
14:20 14:40	O'Brien - Spatial and temporal variability of sediment contaminants in freshwater streams and wetlands	Sanchez-Bayo - Moving forward in toxicity testing – TTE bioassays and reproduction endpoints
14:40 15:00	Williams - Assessment of ecotoxicology of carbamazepine in sediments using the freshwater midge, <i>Chironomus tepperi</i>	Vincent - Using the larvae of the freshwater mussel <i>V. ambiguus</i> for toxicity testing
15:00 15:20	Mann - A rapid amphipod reproduction test for sediment quality assessment: In situ bioassays do not replicate laboratory bioassays	Schafer - Using traits of aquatic invertebrates to identify impacts of pesticides and salinity
15:20 15:40	Afternoon tea (Equinox room)	
15:40 16:30	5 minute poster snap shots (Margaret Murray Room)	
16:30 17:30	Keynote speaker - Dr Allen Burton - Linking sediment contamination with ecologically relevant impacts (Eclipse Room) Chair: Dr Graeme Batley	
17:30 18:30	Poster session and Happy hour (Equinox Room)	
19:00 21:00	Student Mixer (Harry Medlin Rooms)	



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Water for a Healthy Country Flagship is a national research initiative led by Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Water for a Healthy Country aims to deliver environmental, economic and social benefits from water for all Australians through four major Themes which collectively represent the major water research and management challenges confronting Australia.

By working with government, industry and other research providers, the Flagship is developing the technologies and information needed to protect Australia's rural and urban landscapes, provide safe, clean drinking water; manage our rivers, wetlands and estuaries, and ensure wise use of water resources.

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Tuesday 22nd September 2009



8:00	9:00	Registration open (Equinox room)	
	Location	Margaret Murray Room	Eclipse Room
	Session	Nanomaterials	Desalination ecotoxicology
	Session Chair	Dr Jason Kirby	Dr Ross Smith
9:00	9:20	Milani - Zinc diffusion and speciation in an alkaline-calcareous soil treated with fertilisers coated with bulk and nanoparticulate zinc	Hobbs - Ecotoxicity of discharge from seawater desalination plants– an Australian experience
9:20	9:40	Shareef - Quantitative determination of fullerene (nC60) in soils by high performance liquid chromatography and accelerated solvent extraction techniques	Warne - Determining a 'safe' dilution factor for the hypersaline brine discharge from the proposed desalination plant associated with the Olympic Dam mine expansion
	Session	Modelling	Environmental chemistry of chemicals - I
9:40	10:00	Iero - The exposure-dose-response framework in ecological risk assessment of contaminated sediments	de Livera - Cadmium solubility in paddy soils: effects of variable redox conditions and competitive ions
10:00	10:20	Marshall - Field microcosm bioassays as a diagnostic tool for urban stream management	Langdon - Degradation of selected organic compounds following land application of biosolids in South Australia
10:20	11:00	Morning tea (Equinox room)	
	Session	Integrating molecular to ecosystem level effects - I	Environmental chemistry of chemicals - II
	Session Chair	Prof. Dayanthi Nugegoda	Dr Rick Krassoi
11:00	11:20	Kumar – Approaches to assess endocrine disruption in the Australian riverine environment	Oliver - Mode of off-site transport of pesticides from three land uses in the Mt. Lofty Ranges, South Australia
			Chemical speciation and bioavailability - I
11:20	11:40	MacFarlane - Molluscan biomonitor for quantification and impact assessment of estrogenically active compounds in Australian marine ecosystems	Adams - Using synchrotron x-ray fluorescence mapping and x-ray absorption spectroscopy to study copper uptake in microalgal cells
11:40	12:00	Wilson - R.I.P TBT: Tales from the dead	Houston - Amelioration of uranium toxicity by dissolved organic carbon from a tropical Australian billabong
12:00	13:00	Keynote - Prof. Beate Escher - Do we need to assess the environmental risk of transformation products? (Eclipse Room) Chair: Dr Michael Warne	
13:00	14:00	Lunch (Equinox Room)	

Location	Margaret Murray Room	Eclipse Room
Session	Integrating molecular to ecosystem level effects - II	Chemical speciation and bioavailability - II
Session Chair	Prof. Beate Escher	Prof. Bill Maher
14:00 - 14:20	Hassell - Variation in histological appearance of black bream gonads sampled from five Victorian estuaries	Nugegoda - Biomonitoring ecosystem recovery after decontamination of a contaminated site using earthworms
14:20 - 14:40	Toogood - The effect of p,p-DDE on plasma thyroid hormone levels in juvenile <i>Acanthopagrus butcheri</i>	Van Dam - Uranium speciation and toxicity following chronic exposure to the tropical freshwater fish, <i>Mogurnda mogurnda</i>
14:40 - 15:00	Inglis - Passage effect on MCF-7 and T47-D cells for use in the E-screen	Wen - Investigating the use of rhamnolipid for cadmium phytoextraction in soils
15:00 - 15:20	Lang - Developing an assay to assess the effects of contaminants (CYN & EE2) on mammalian development	Anderson - Transplanted oysters, DGT and water grab samples: An application in monitoring industrial receiving waters
15:20 - 15:40	Hickey - Catchment studies in Georges Bay, Tasmania: base-flow water and foam toxicity to cladocerans and blue-mussels	Mortimer - The use of passive samplers in a regulatory context – to what extent is this methodology being adopted?
15:40 - 16:00	Afternoon tea (Equinox room)	
16:00 - 18:00	ASE Annual General Meeting (Eclipse Room)	
19:00 - 23:00	Conference dinner (National Wine Centre)	

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Wednesday 23rd September 2009



8:00	9:00	Registration open (Equinox room)	
	Location	Margaret Murray Room	Eclipse Room
	Session	Multiple stressors & General Ecotoxicology	Environmental Quality Guidelines - I
	Session Chair	Dr Munro Mortimer	Dr Rick Van Dam
9:00	9:20	Jeppe - Isolating the effects of sediment pollution from physical factors in an urban stream	Chapman - International experience in incorporating bioaccumulation into water quality guidelines.
9:20	9:40	Long - Chemical exposure and drought stress interactions on <i>Lumbricus rubellus</i> survival and reproduction	Hogan - Effects of Mg pulse exposures on tropical freshwater Australian species
9:40	10:00	Townsend - Sediment quality in the River Murray and its effects on benthic macroinvertebrates	Harford - The development of water quality guidelines for suspended sediments in Magela Creek
10:00	10:20	Reichelt-Brushett - Ecotoxicity testing of a slightly soluble natural product	Strom - Development of a sediment quality guideline for copper
10:20	10:40	Morning tea (Equinox room)	
10:40	11:40	Keynote - Prof. Steve Klaine - Nanomaterials in aquatic ecosystems: Relating particle characteristics to biological effects (Eclipse Room) Chair: Dr Mike McLaughlin	
	Location	Eclipse Room	
	Session	Environmental Quality Guidelines - II	
	Session Chair	Dr John Chapman	
11:40	12:00	Kookana - Triclosan: Its occurrence, fate and effects in the Australian environment	
12:00	12:20	Batley - Errors in the application of species sensitivity distributions	
12:20	12:40	Fox - Bayesian methods for determining hazardous concentrations in ecotoxicology	
12:40	13:00	Warne & Van Dam - 101 reasons to stop generating and using hypothesis based toxicity estimates – NOECs and LOECs should be banned	
13:00	13:15	Closing Ceremony (Eclipse Room)	
	13:15	Lunch (Equinox room)	
13:30	14:30	EDC SIG Meeting (Eclipse Room)	



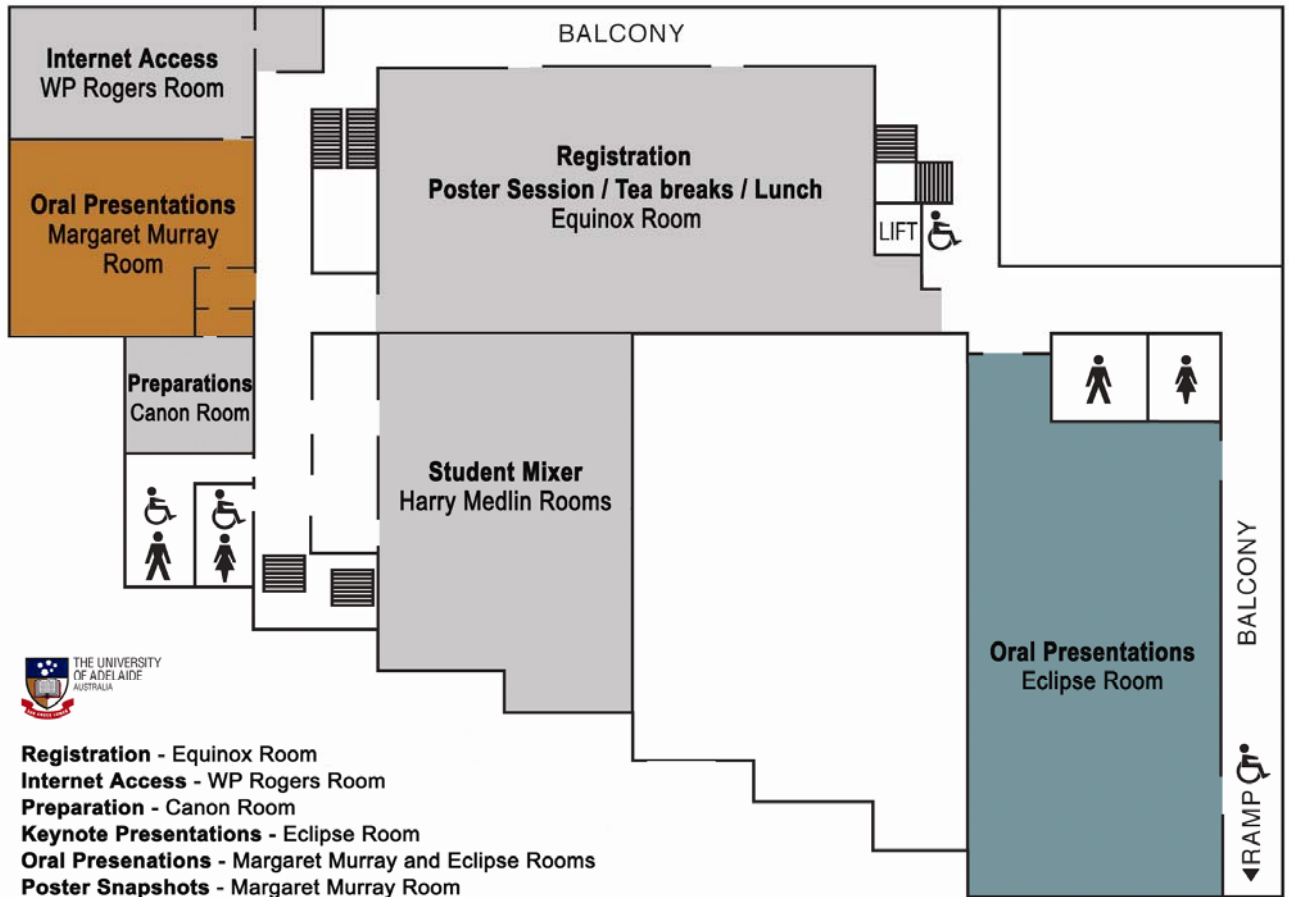
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Poster Session



No.	Author	Poster Title
1	Amie Anastasi	Manganese oxidation in a subtropical estuarine system
2	Atcharaporn Somparn	Ecotoxicology of pesticide use in the Thai paddy field on the zooplankton, <i>Moina micrura</i> Kuze.
3	Brooke Ryan	The Fate and Behaviour of Cerium Oxide Nanoparticles in the Terrestrial Environment
4	Christopher Rawson	Fish health in Claisebrook Cove, an urban embayment of the Swan River, WA
5	Chuleemas Boonthai Iwai	Ecotoxicological Monitoring of the Impact of Salinity on Soil Biota Activities in the Salt-Affected Area in Northeast Thailand.
6	Diane Webb	The potential of freshwater shrimp (<i>Palaeomonetes australis</i>) as a model bioindicator of crustacean health
7	Diane Webb	Depurated fish as alternative to reference sites
8	Diane Webb	Serum SDH activity as a biologically significant biomarker of liver integrity in fish
9	Diane Webb	HSP70 expression as a biologically significant biomarker of fish health under field conditions
10	Fleur Pablo	Investigations into the phytotoxicity of water-accommodated fraction (WAF) of common petroleum fuels to typical garden plants
11	Gabriela Aguirre-Martínez	Sublethal effect responses to assess toxicity of oil spill contaminated sediments: application of a battery of biomarkers under laboratory conditions.
12	Gemma Kirwan	¹H-NMR Metabonomic studies of black bream exposed to 17β-estradiol.
13	Geoff MacFarlane	Phylogenetic analyses in ecotoxicology: new approaches to incorporating evolutionary relationships into comparative toxicological studies
14	Golam Kibria	Artificial mussel' a new environmental risk assessment tool for heavy metals monitoring in surface waters-pilot study
15	Hai Doan	Preliminary ecotoxicological assessment of water in a reed-bed and aquifer at Salisbury stormwater ASTR project
16	Ing Chia Phang	Response of <i>Arabidopsis thaliana</i> seedlings to lead exposure: effect of pre-treatment with sodium nitroprusside
17	Jackie Myers	Effects of salinity and light intensity on photosynthetic capacity of the cyanobacterium <i>Nodularia spumigena</i>
18	John Chapman	Toxicity of Phoslock™ A lanthanum-based clay product to fish and cladoceran
19	Madeleine Thomas	Dissolution and Partitioning of Manufactured Silver Nanoparticles in the Soil Environment
20	Anu Kumar	Approaches to assess endocrine disruption in the Australian riverine environment
21	Nikita M. Engels	DNA Damage in the marine macro-algae <i>Ulva</i> exposed to the polycyclic aromatic hydrocarbon benzo[<i>a</i>]pyrene
22	Patryk Oleszczuk	Bioavailability of polycyclic aromatic hydrocarbons in sewage sludges and composts and their effects on plants and crustaceans
23	Prakash Srinivasan	Sorption of veterinary antibiotics onto New Zealand dairy farm soils
24	Rajani Jagtap	Measurement of mercury species by HPLC-HG-AAS
25	Ray Correll	Use of time series acute toxicity data to predict chronic lethality
26	Richard Yu	Leptin: a molecular link between hypoxia and endocrine disruption in fish?
27	Rosangela A. Devilla	Impact of antifouling biocide on marine phytoplankton composition: influence of nutrient additions and Irgarol 1051® toxicity
28	Sonia Grocke	Evaluation of the organic load measurements in the winery processes
29	Shannon McCrindle	Fate and detection of carbon nanotubes in soil environments
30	Wan Abdul Rahim Wan Ahmad	The use of the Three-spined Stickleback (<i>Gasterosteus aculeatus</i>) as a model species to identify androgenic and estrogenic properties of Produced water
31	Yin L.Phyu	Assessment of the risk of atrazine, permethrin and chlorothalonil in the Hawkesbury Nepean River NSW, Australia

Conference Location – University of Adelaide, North Tce, Adelaide



- Registration** - Equinox Room
- Internet Access** - WP Rogers Room
- Preparation** - Canon Room
- Keynote Presentations** - Eclipse Room
- Oral Presentations** - Margaret Murray and Eclipse Rooms
- Poster Snapshots** - Margaret Murray Room
- Poster Session** - Equinox Room
- Lunch/tea breaks** - Equinox Room
- Student Mixer** - Harry Medlin Rooms
- Conference Dinner** - National Wine Centre (Cnr Hackney Rd & North Tce)

Union House
Level 4 Conference Centre



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