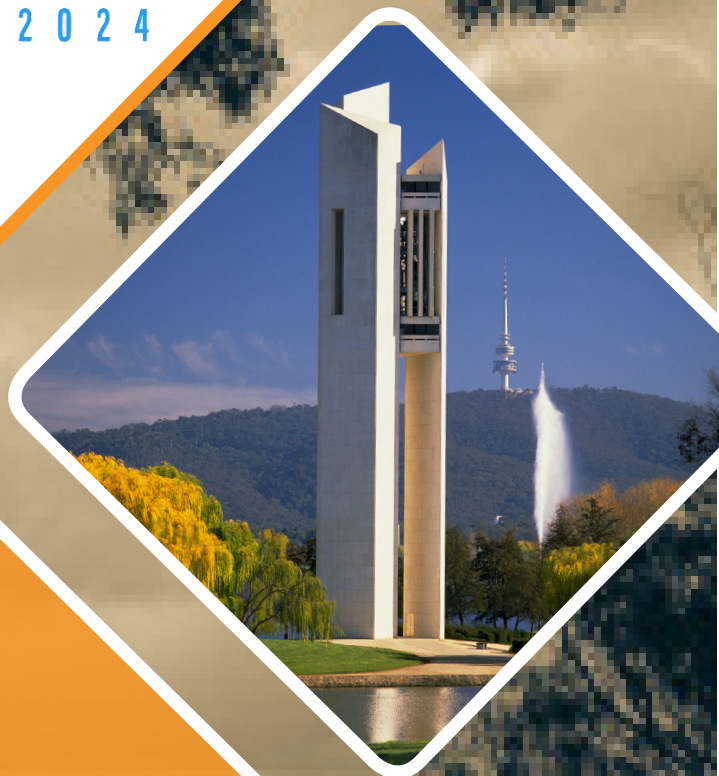


**ACTRA**  
CANBERRA 2024



**Conference Program**

**Australasian College of  
Toxicology & Risk Assessment**

**16<sup>th</sup> Annual Scientific Meeting  
& Continuing Education Day**

**Climatotoxicology: Assessing risk in a time of rapid change**

**Continuing Education Day - Wednesday 28<sup>th</sup> August 2024**

**Annual Scientific Meeting - 29<sup>th</sup> - 30<sup>th</sup> August 2024**

**Rex Hotel, Canberra, ACT**

**[www.actra.org.au](http://www.actra.org.au)**

# Continuing Education Day

Wednesday 28<sup>th</sup> August 2024

Time	Topic	Presenter/Chairperson
8.00hrs	Registration and Arrival Coffee	
9.00hrs	Acknowledgement of Country	Associate Professor Paul Wright, FACTRA, RMIT University and ACTRA Immediate Past President
	President's Welcome	Tarah Hagen, FACTRA, SLR Consulting Australia and ACTRA President
9.15hrs	<b>Session 1 QSAR, Chemical Grouping and Read Across</b>	Chairperson: Effi Liden, Department of Health, Victoria and ACTRA Membership Officer
9.15hrs	Introduction to QSAR and Read Across	Effi Liden, Department of Health, Victoria and ACTRA Membership Officer
9.45hrs	Phosmet: A case study in the use of QSAR to evaluate Potential Genotoxicity in Data Poor food & feed metabolites	Dr Rhian Cope FACTRA, SLR Consulting Australia and ACTRA Secretary
10.30hrs	Morning Tea and Coffee	
11.00hrs	Fipronil metabolites: An example of a classical paper	Dr Rhian Cope FACTRA, SLR Consulting Australia and ACTRA Secretary
11.30hrs	Filling information gaps using Read Across and (Q)SAR	Louise Stedman, Australian Industrial Chemicals Introduction Scheme
12.00hrs	Lunch	
13.00hrs	<b>Session 2 Introduction to R Basics in the Context of Environmental Risk Assessment</b>	Chairperson: Katie Richardson, RACTRA, Senversa and ACTRA Vice President
13.00hrs	Introduction to R Basics in the Context of Environmental Risk Assessment	Dr Antti Mikkonen & Dr Maryam Moslehi, Environment Protection Authority Victoria
	Case Study: [Please bring your laptop with R installed.]	Dr Antti Mikkonen & Dr Maryam Moslehi, Environment Protection Authority Victoria
15.00hrs	Afternoon Tea and Coffee	
15.30hrs	Case Study continued	Dr Antti Mikkonen & Dr Maryam Moslehi, Environment Protection Authority Victoria
15.45hrs	Applications of R in Environmental Risk Assessment	Dr Antti Mikkonen & Dr Maryam Moslehi, Environment Protection Authority Victoria
16.45hrs	CE Day Wrap-up	Katie Richardson, RACTRA, Senversa and ACTRA Vice President
17.00hrs	CE Day Close	
18.00hrs	Networking function This networking opportunity is not a formal part of the CE Day Registration and is on a pay as you go basis.	The Assembly: The Peoples Pub 11 Lonsdale Street, Braddon

# Outline of the CE Day

## Morning session

Introduction to *in silico* methods: Read across and QSAR with case studies

Case studies include:

- Using QSAR in data poor environments to evaluate potential genotoxicity for phosmet;
- Filling information gaps using Read Across and (Q)SAR: Two case studies on industrial chemicals with limited data; and
- Using QSAR review to fipronil and its metabolites.

## Afternoon session

### 1. Introduction to R Basics in the Context of Environmental Risk Assessment:

- Why R is Important for Analysing Contaminated Land Data
- Basics of Data Analysis in R:
  - Reading and cleaning data in R (e.g., fixing data formats, dealing with odd data points or duplicates)
  - Basic Data Analysis Techniques (e.g., simple Stats, mathematical models and data interpretation)
- Data Visualisation – Attribute-based and Spatial Analyses
  - Different Types of visualisation for Different Data Types
  - Introduction to Visualisation Packages
  - Tips for Making Clear and easy-to-follow Visualisations.

### 2. Case Study:

We'll use an environmental dataset to practice what we've learned.

Please bring your laptop with R installed. We'll provide you with the required codes and information and will guide you through the data cleaning, analysis and visualisation of the data to tie together all the learnings for the day.

### 3. Applications of R in Environmental Risk Assessment


- Examples of Risk Assessment Modelling – Model development
- Thinking Process – Structuring Mathematical Approaches

# Annual Scientific Meeting

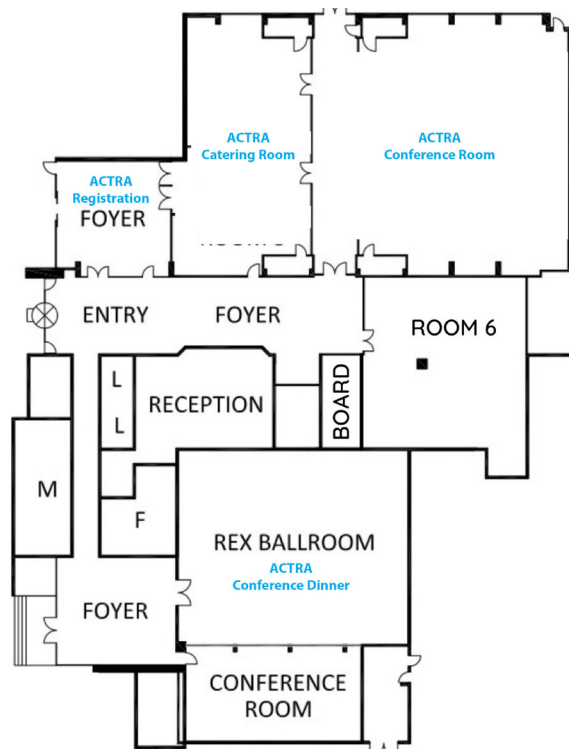
Thursday 29<sup>th</sup> August 2024

Time	Topic	Presenter/Chairperson
8.00hrs	Registration and Arrival Coffee	
8.45hrs	<b>ASM Opening</b>	
8.45hrs	Acknowledgement of Country	Associate Professor Paul Wright, FACTRA, RMIT University and ACTRA Immediate Past President
	President's Welcome	Tarah Hagen, FACTRA, SLR Consulting Australia and ACTRA President
	Conference Co-Chair Welcome	Lana Barbour, DCCEEW and Dr Rhian Cope, FACTRA, SLR Consulting Australia and ACTRA Secretary
9.00hrs	<b>Session 1 Climatotoxicology 101</b>	Chairperson: Dr Rhian Cope FACTRA, SLR Consulting Australia and ACTRA Secretary
9.00hrs	Climate Change Science 101: Key Messages and Data	Professor David Karoly, Climate Council and University of Melbourne
9.40hrs	Key Impacts of Climate Change on Toxicology and Risk Assessment	Tarah Hagen, FACTRA, SLR Consulting Australia and ACTRA President
10.20hrs	Impacts of Climate Change and the Water Treatment and Supply Sector on Aquatic Systems	Dr Carolyn Brumley, Senior Principal Scientist, Senversa
10.35hrs	Morning Tea and Coffee	
11.00hrs	<b>Session 2 Water: Climate Impacts and Toxic Effects</b>	Chairperson: Effi Liden, Department of Health, VIC and ACTRA Membership Officer
11.00hrs	The Changing Picture of Harmful Algae in the Gippsland Lakes, Impacts on Recreational Water and Seafood Safety	Rachael Poon, Senior Health Scientist, Department of Health, Victoria
11.40hrs	Australian & New Zealand Guidelines for Fresh & Marine Water Quality: Transitioning from Burrlioz to (shiny)ssdtools for deriving aquatic ecosystem guideline values for toxicants, including case studies	Dr Rebecca Fisher, Ecological Risk Assessment Modeller, Australian Institute of Marine Science
	<small>Speaker Sponsor</small> 	
12.20hrs	Trihalomethanes in Drinking Water and Low Birthweight: A Data Linkage Study in Queensland	Dr Phil Choi, Senior Environmental Health Scientist, Queensland Health
12.35hrs	Lunch and ACTRA AGM	
14.00hrs	<b>Session 3a The Impacts of Climate Change on Exposure</b>	Chairperson: Dr Adam Wightwick, RACTRA, Ramboll
14.00hrs	Warming Worlds, Rising Risks: Understanding Climate Change's Impact on Mercury Exposure	Dr Larissa Schneider, Associate Professor, Australian National University
14.40hrs	Using Risk Assessment to Support the Use of Recycled Aggregates	Ruth Jarman, Environmental Risk Sciences (enRiskS)
14.55hrs	The Case of the Lone Firefighter	Sheridan Chapman, Senior Consultant, DRC Environmental
15.10hrs	What do those risk numbers mean? Interpreting and Communicating Risk	Dr Jackie Wright, Director, Environmental Risk Sciences (enRiskS)

## Thursday 29<sup>th</sup> August 2024

Time	Topic	Presenter/Chairperson
15.25hrs	Afternoon Tea and Coffee	
15.55hrs	<b>Session 3b</b> <b>The Impacts of Climate Change on Exposure</b>	Chairperson and Moderator: Lana Barbour, Department of Climate Change, Energy, the Environment and Water (DCCEEW)
15.55hrs	Moderated Panel: The Impacts of Climate Change on Pesticide Practices and Pesticide Risk Assessment	Dr Rhian Cope FACTRA, SLR Consulting Australia and ACTRA Secretary
	<p>Speaker Sponsor</p>  <p>Industry Perspectives on Pesticides and Climate Change Pesticides and Climate Change</p>	<p>Gregory Sekulic, Director - Agricultural Chemical Policy, CropLife Australia</p> <p>Dr Maria Trainer, Australian Pesticides and Veterinary Medicines Authority</p>
16.45hrs	ASM Day 1 Highlights and Discussion	Associate Professor Paul Wright, FACTRA, RMIT University and ACTRA Immediate Past President
17.00hrs	Close ASM Day 1	
19.00hrs	ASM Dinner Dance commences with pre dinner drinks	Rex Ballroom, Rex Hotel
23.00hrs	ASM Dinner Dance Close	

### ACTRA Conference Floor Plan



# Annual Scientific Meeting

Friday 30<sup>th</sup> August 2024

Time	Topic	Presenter/Chairperson
8.30hrs	Registration and Arrival Coffee	
9.00hrs	<b>Session 4</b> <b>Air: Climate Impact on Bushfires and their Toxic Effects</b>	Chairperson: Dr Andrew Harman, Department of Mines, Industry, Regulation and Safety and ACTRA Treasurer
9.00hrs	Climate Change and Managing Landscape Fire Regimes, Risks and Benefits	Dr Rochelle Christian, Director, Rochelle Christian Consulting
9.40hrs	Health Impacts of Wildfire Smoke: It's Not Just Burning Wood	Professor Lisa Miller, University of California Davis, USA
10.10hrs	Acrolein and Reactive Carbonyl Compounds as Joint Mediators of Environmental Lung Injury	Dr Phillip Burcham, Associate Professor, University of Western Australia
10.40hrs	Morning Tea and Coffee	
11.10hrs	<b>Session 5</b> <b>Travel Grant Award and Presentation</b>	Chairperson: Dr Peter Di Marco, Managing Director Benchmark Toxicology Services Pty Ltd
11.10hrs	AmesFormer: A State-of-the-Art Graph Transformer for Mutagenicity Prediction	Luke Thompson, B.Sc. Honours Researcher, The University of Sydney
 Prize Sponsor	Student Travel Grant Award Ceremony	
11.40hrs	<b>Session 6</b> <b>Impacts of Climate Change on Health</b>	Chairperson: Dr Rhian Cope, FACTRA, SLR Consulting Australia and ACTRA Secretary
11.40hrs	Understanding and Mitigating the Health Impacts of Extreme Heat in a Changing Climate	Professor Ollie Jay, University of Sydney
12.20hrs	Thirsty Work: Climate-dependent Stock Water Screening Levels for the Broad PFAS Family	Katie Richardson, RACTRA, Senversa and ACTRA Vice President
12.40hrs	Mitigating Contaminated Dust Sources in a Drying Climate	Kara Fry, Environment Protection Authority Victoria
12.55hrs	Poster Presenter's Introduction	Dr Peter Bain, SA Department for Health & Wellbeing Professor Yasuo Tsutsumi, School of Pharmaceutical Sciences, Osaka University, Japan
13.00hrs	Lunch	
13.30hrs	<b>Session 7</b> <b>Poster Presentations</b>	Poster presentations will take place over the lunch break
	Forecasting calls to the Poisons Information Centre during wild mushroom season in South Australia	Dr Peter Bain: SA Department for Health & Wellbeing
	Establishment and Safety Assessments of Micro/Nanoplastic Libraries 2: Focus on Polypropylene (PP)	Professor Yasuo Tsutsumi, Graduate School of Pharmaceutical Sciences, Osaka University, Japan

## Friday 30<sup>th</sup> August 2024

Time	Topic	Presenter/Chairperson
14.00hrs	<b>Session 8 Climate and Biota</b>	Chairperson: Alyson Macdonald, RACTRA, Australian Environmental Auditors
14.00hrs	Subterranean biota and the preservation of groundwater integrity in the face of climate change	Dr Mattia Saccò, Subterranean Research and Groundwater Ecology (SuRGE) Group, Curtin University
14.40hrs	Climate Change, Poisonous Plants and Risks to Livestock	Dr Rhian Cope FACTRA, SLR Consulting Australia and ACTRA Secretary
15.00hrs	Extreme Weather Events and the Rise of the Moulds	Jackii Shepherd, Senior Occupational Hygienist, Robson Environmental
15.15hrs	Afternoon Tea and Coffee	
15.45hrs	<b>Session 9 Environmental Risk Assessment in a Changing Climate</b>	Chairperson: Katie Richardson, RACTRA, Senversa and ACTRA Vice President
15.45hrs <small>Speaker Sponsor</small>	Incorporating Climate Change into Environmental Risk Assessment	Adjunct Professor Jenny Stauber Department of Environment and Genetics, La Trobe University
16.45hrs	ASM Day 2 Highlights, Discussion and Conference Close	Tarah Hagen, FACTRA, SLR Consulting Australia and ACTRA President
17.00hrs	Close ASM Day 2	





## Contact

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