

## Australian Rivers Institute

### Seminar Series 2017

#### Using metabolomics to understand the interaction between aquatic organisms and their environment

**Abstract:** One of the challenges for assessing ecosystem health is to develop sensitive, cost effective and diagnostic tools to isolate and identify effects of stress in resident biota. In addition, it is essential to understand how other factors such as gender, reproductive status and diet, can also influence biological responses. This talk will describe laboratory and field-based research that I have conducted over the past few years using metabolomics approaches to understand responses of aquatic organisms to their environment.

**Biography:** Sara has a BSc joint honours degree in Biochemistry and Pharmacology from King's College, University of London and an MSc in Natural Resource Management from the University of Leicester. She obtained her PhD in aquatic ecotoxicology from RMIT-University in 2001. Sara then spent eight years as a terrestrial ecotoxicologist at the Centre for Ecology and Hydrology at Monks Wood in the UK, investigating the effects of pesticides and industrial contaminants on vertebrates and invertebrates using traditional and novel biochemical techniques. She is currently a Research Fellow at the Centre for Aquatic Pollution Identification and Management (CAPIM) at the University of Melbourne. Her main research focus is to develop novel methods to understand effects of environmental stressors (anthropogenic and natural) in aquatic organisms, which can be used in biomonitoring programs for assessment of aquatic health. Sara is particularly interested in the interaction between stressors and organisms at the individual level to gain a greater understanding of the mechanisms of action of these stressors.



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**Friday 30 June 2017**  
**Gold Coast campus**

**Learning Commons**  
**Seminar Room**  
**G11\_3.59**  
**12 noon—1.00 pm**